ISLAMIC FINANCIAL SERVICES BOARD

THE IFSB COMPILATION GUIDE ON PRUDENTIAL AND STRUCTURAL ISLAMIC FINANCIAL INDICATORS (PSIFIs)

Guidance on Compilation and Dissemination of Prudential and Structural Islamic Financial Indicators for Institutions offering Islamic Financial Services (IIFS)

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ABBREVIATIONS

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
ADB	Asian Development Bank
AuM	Assets under mmanagement
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
CAS	Capital Adequacy Standard (IFSB)
CAR	Capital adequacy ratio
CBCSDC	Cross-border, cross-sector, domestically controlled consolidation basis
CBCSDI	Cross-border, Cross-sector, domestically incorporated consolidation basis
CET1	Common equity tier 1
CIS	Collective investment scheme
CPIFR	Core Principles for Islamic Finance Regulation
CRWA	Credit risk-weighted assets
DCR	Displaced commercial risk
DFS	Detailed financial statements
DL	Domestic location consolidation basis
DQAF	Data Quality Assessment Framework
ECAI	External credit assessment institution
ECB	European Central Bank
FCCB	Foreign-controlled cross-border
FSIs	Financial Soundness Indicators
FAS	Financial Accounting Standard
FSAP	Financial Sector Assessment Program
FVOCI	Fair value taken to other comprehensive income
FVPL	Fair value taken to profit or loss
GAAP	Generally Accepted Accounting Principles
GFC	Global Financial Crisis
IAH	Investment account holder
IAIS	International Association of Insurance Supervisors
IAS	International Accounting Standards
IASB	International Accounting Standards Board
ICIS	Islamic collective investment scheme
ICM	Islamic capital markets
IDB	Islamic Development Bank
IFIs	Islamic financial institutions
IFRS	International Financial Reporting Standards
IFSB	Islamic Financial Services Board
IFSI	Islamic financial services industry
IIFS	Institutions offering Islamic financial services
IIFM	International Islamic Financial Market

IMF	International Monetary Fund
IRB	Internal Ratings Based
IRM	Internal risk modelling
IRR	Investment risk reserve
ISIC	International Standard Industrial Classification of All Economic Activities
ISWGNA	Intersecretariat Working Group on National Accounts
LCR	Liquidity coverage ratio
MMF	Money market funds
MRWA	Market risk-weighted assets
NAV	Net asset value
NPF	Non-performing financing
NSFR	Net stable funding ratio
OCI	Other comprehensive income
OCVA	Other changes in the volume of assets
ORWA	Operational risk-weighted assets
PER	Profit equalisation reserve
PIF	Participants' Investment Fund
PIFD	Prudential Islamic Finance Database
PIFIs	Prudential Islamic Financial Indicators
PRF	Participants' Risk Fund
PSIA	Profit-sharing investment account
PSIFIs	Prudential and Structural Islamic Financial Indicators
ROA	Return on assets
ROE	Return on equity
RSA	Regulatory or supervisory authority
RWA	Risk-weighted assets
SDR	Special drawing rights
SIFIs	Structural Islamic Finance Indicators
SNA 2008	System of National Accounts of the United Nations 2008
SPE	Special purpose entities
SPV	Special purpose vehicle
TO	*Takāful* operator
RT	*Retakāful* operator

LIST OF PRUDENTIAL AND STRUCTURAL FINANCIAL INDICATORS (PSIFIS) – ISLAMIC BANKING

I: Core Prudential Islamic Financial indicators

Code	Indicator
Capital Adequacy: Basel Standard	
CP01a	**Capital adequacy ratio (CAR)**
	Total regulatory capital
	Risk-weighted assets
CP02a	**Tier 1 capital to risk-weighted assets (RWA)**
	Tier 1 capital
	RWA
CP03a	**Common equity tier 1 (CET1) capital to RWA**
	CET1 capital
	RWA
Capital Adequacy: IFSB Formula	
CP01b	**CAR (IFSB)**
	Total regulatory capital
	RWA
CP02b	**Tier 1 capital to RWA (IFSB)**
	Tier 1 capital
	RWA
CP03b	**CET1 capital to RWA (IFSB)**
	CET1 capital
	RWA
Asset Quality	
CP04	**Gross non-performing financing (gross NPF) ratio**
	Gross NPF
	Total financing
CP05	**Net non-performing financing (net NPF) to capital**
	Net NPF
	Total regulatory capital
CP06	**Provisions for gross NPF**
	Provisions
	Gross NPF

Earnings	
CP07	**Return on assets (ROA)**
	Net income (before extraordinary items, taxes and *zakat*)
	Total assets
CP08	**Return on equity (ROE)**
	Net income (before extraordinary items, taxes and *zakat*)
	Equity
CP09	**Net profit margin**
	Net income (before extraordinary items, taxes and *zakat*)
	Gross income
CP10	**Cost to income**
	Operating costs
	Gross income
Leverage	
CP11	**Capital to assets (balance sheet definition)**
	Tier 1 capital
	Total assets
CP12	**Leverage (regulatory definition)**
	Tier 1 capital
	Exposure
Liquidity	
CP13	**Liquid assets ratio**
	Liquid assets
	Total assets
CP14	**Liquid assets to short-term liabilities**
	Liquid assets
	Short-term liabilities
CP15	**Liquidity coverage ratio (LCR)**
	Stock of Sharī`ah-compliant high-quality liquid assets
	Total net cash outflows over the next 30 calendar days
CP16	**Net stable funding ratio (NSFR)**
	Available stable funding (ASF)
	Required stable funding (RSF)
Sensitivity to Risks	
CP17	**Net foreign exchange (FX) open position to capital**
	Net FX open position
	Total regulatory capital
CP18	**Large exposures to capital**
	Value of large exposures
	Total regulatory capital (or balance sheet capital)
CP19	**Growth of financing to private sector**
	Total financing at end of current period
	Total financing at end of same period in previous year

II: Additional Prudential Islamic Financial Indicators

AD01	**Income distributed to investment account holders (IAH) out of total income from assets funded by profit-sharing investment accounts (PSIAs)** Income distributed to IAH Total income from assets funded by PSIA
AD02	**Total off-balance sheet items to total assets** Off-balance sheet items Total assets
AD03	**Foreign-currency denominated (FX) funding to total funding** FX funding Total funding
AD04	**Foreign-currency denominated financing to total financing** FX financing Total financing
AD05	**Value of *sukūk* holdings to capital** *Sukūk* holdings Total regulatory capital (or balance sheet capital)
AD06	**Value (or percentage) of Sharī`ah-compliant financing by economic activity** Sectoral distribution (a) agriculture, forestry, hunting and fishing (b) mining and quarrying (c) manufacturing (d) electricity, gas, steam and air-conditioning supply (e) water supply; sewerage and waste management (f) construction (g) wholesale and retail trade; repair of motor vehicles and motorcycles (h) transportation and storage (i) accommodation and food service activities (j) information and communication (k) financial and insurance (*takāful)* activities (l) real estate activities (m) professional, scientific and technical activities (n) administrative and support service activities (o) public administration and defence; compulsory social security (p) education (q) human health and social work activities (r) arts, entertainment and recreation (s) other service activities (export) (t) activities of households as employers (t*) other financing of households (u) activities of extraterritorial organisations and bodies (u*) financing to non-residents
AD07	**Value (or percentage) of gross NPF by economic activities** **Total value of gross NPF** Economic activity (a) agriculture, forestry, hunting and fishing (b) mining and quarrying (c) manufacturing (d) electricity, gas, steam and air-conditioning supply (e) water supply; sewerage and waste management (f) construction (g) wholesale and retail trade; repair of motor vehicles and motorcycles (h) transportation and storage

AD08	(i) accommodation and food service activities (j) information and communication (k) financial and insurance (*takāful*) activities (l) real estate activities (m) professional, scientific and technical activities (n) administrative and support service activities (o) public administration and defence; compulsory social security (p) education (q) human health and social work activities (r) arts, entertainment and recreation (s) other service activities (export) (t) activities of households as employers (t*) other financing of households (u) activities of extraterritorial organisations and bodies (u*) financing to non-residents **Value (or percentage) of returns by major type of Sharī`ah-compliant contract** Total returns *Murābahah* Commodity *murābahah/tawwaruq* *Salam* *Istisnā`* *Ijārah/ijārah muntahia bittamlīk* *Muḍārabah* *Mushārakah* Diminishing *mushārakah* *Wakālah* *Qarḍ hassan* Others (i) *Bai ajel* (ii) *Ijārah mawsufa fi al-dhimmah* (also called forward *ijārah*) (iii) Others

III: Structural Islamic Financial Indicators

ST01	**Number of Islamic banks**
	Number of domestic branch offices
	Number of ATMs
ST02	**Number of employees**
ST03	**Total assets**
	Total Sharī`ah-compliant financing (excluding interbank financing)
	Ṣukūk holdings
	Other Sharī`ah-compliant securities
	Interbank financing
	All other assets
ST04	**Total funding/liabilities and equities**
	Profit-sharing investment accounts (PSIA)
	Other remunerative funding *(murābahah,* commodity *murābahah,* etc*.)*
	Non-remunerative funding (current account, *wadī'ah*)
	Ṣukūk issued
	Other Sharī`ah-compliant securities issued
	Interbank funding/liabilities
	All other liabilities
	Capital and reserves
ST05	**Total revenues**
	Financing based
	Investment based *(sukūk,* other Sharī`ah-compliant securities, etc.)
	Fee based
	Other
ST06	**Earnings before taxes and *zakat***
ST07	**Value (or percentage) of financing by type of Sharī`ah-compliant contract**
	Total financing
	Murābahah
	Commodity *murābahah/tawarruq*
	Salam
	Istisnā`
	Ijārah/ijārah muntahia bittamlīk
	Muḍārabah
	Mushārakah
	Diminishing *mushārakah*
	Wakālah
	Qarḍ hassan
	Others
ST08	**Assets held by domestic systemically important Islamic banks**

DETAILED FINANCIAL STATEMENTS (DFS) FOR ISLAMIC BANKING

I: Income and Expense Statement for IIFS

FS01	**Gross financing and investment income = FS01(i) + FS01(ii)**
	(i) Income from financing
	(i.i) Sales based
	(i.ii) Lease based
	(i.iii) Equity based
	(i.iv) Others
	(ii) Income from investments*
	Of which: Income from *sukuk* and other Sharīʿah-compliant securities
FS02	**Less [FS02(i) + FS02(ii) + FS02(iii)]**
	(i) Share of income attributable to on-balance sheet profit-sharing investment accounts
	(ii) Share of income taken as profit equalisation reserve (PER)
	(iii) Less provisions for accrued income on non-performing assets
FS03	**Net financing and investment income = FS01 – FS02**
FS04	Bank's income as *mudarib* from off-balance sheet restricted profit-sharing investment account (RPSIA)
FS05	Fees and commission income**
FS06	Gains or losses on financial instruments
FS07	Other income
FS08	**Gross income = (FS03 + …. + FS07)**
FS09	Non-financing and investment expenses
FS10	Personnel expenses (including administrative and general expenditures)
FS11	Other expenses (including fees payable)**
	(i) Of which: Depreciation
	(ii) Of which: *Hibah* expenses for remunerative accounts (excluding expenses for profit-sharing investment accounts [PSIA])
FS12	**Provisions**
	(i) Provisions for non-performing financing
	(ii) Provisions for non-performing investment
	(iii) Provisions for other financial assets
FS13	**Net income (before extraordinary items, taxes and *zakāh*) = FS08 – (FS09+…+FS12)**
FS14	Extraordinary items
FS15	Provision for *zakāh*
FS16	Income tax
FS17	**Net income after extraordinary items, taxes and *zakāh*/net income before minority interest = FS13 – (FS14 + ... + FS16)**
FS18	Income attributable to minority interest
FS19	**Net income after minority interest [= FS17 – FS18]**
FS20	Dividends payable
FS21	**Retained earnings (= FS19 – FS20)**

II: Consolidated Statement of Financial Position for IIFS

FS22	**Total assets (= FS23 + ... + FS31 = FS32)**
FS23	Cash in hand
FS24	Total Sharī`ah-compliant financing (excluding interbank financing)
	Of which: *Ijara* and *istisnaa* financing***
FS25	Interbank financing
FS26	*Sukūk* holdings
FS27	Other Sharī`ah-compliant securities
FS28	Investment funds, shares and other equity
FS29	Sharī'ah-compliant hedging instruments
FS30	Plant, property and equipment
FS31	All other assets
FS32	**Total funding/liabilities and equities (= FS33 + … + FS41)**
FS33	Current accounts (Non-remunerative funding)
	(i) Current accounts of banks and other financial institutions
	(ii) Non-remunerative (*qard* and *wadī`ah*) funding from customers
	(iii) Other non-remunerative funding from customers
FS34	Remunerative funding
	(i) Profit-sharing investment accounts (*mudarabah*, *musharakah* basis)
	(i.i) PSIA by banks (unrestricted + restricted)
	(i.ii) All other unrestricted PSIA
	(i.iii) All other restricted PSIA (on-balance sheet)
	(ii) Other remunerative funding
	(ii.i) *Wakālah* funding by banks
	(ii.ii) All other *wakālah* funding
	(ii.iii) *Tawwaruq*/commodity *murabahah* funding by banks
	(ii.iv) All other *tawwaruq*/commodity *murabahah* funding
	(ii.v) Other, not indicated elsewhere
FS35	Other Interbank funding/liabilities
FS36	*Sukūk* issued
FS37	Other Sharī`ah-compliant securities issued
FS38	Payables
FS39	All other liabilities
FS40	**Equity of unrestricted investment account holders (if AAOIFI)**
FS41	Shareholders' equity
	(i) Paid-up share capital
	Of which: Amount eligible for CET1
	Of which: Amount eligible for AT1
	(ii) Retained earnings
	(iii) Accumulated other comprehensive income
	(iv) General and other reserves
FS42	Balance sheet total (= FS32 = FS22)

III : Memorandum Items for IIFS

FS43	**Tier 1 capital**
	(i) Common equity tier 1
	(i.i) CET1 regulatory deductions and adjustments
	(ii) Additional tier 1 capital
FS44	Tier 2 capital
FS45	Other supervisory deductions
FS46	**Total regulatory capital (= FS43 + FS44 – FS45)**
FS47	**Risk-weighted assets (RWA)**
	(i) RWA for credit risk
	(ii) RWA for market risk
	(iii) RWA for operational risk
	(iv) RWA funded by restricted PSIA
	(v) RWA funded by unrestricted PSIA
	Of which: (i) Credit risk-weighted assets (CRWA) funded by PER of UPSIA
	(ii) Market risk-weighted assets (MRWA) funded by PER of UPSIA
Series for further analysis of the balance sheet	
FS48	**Liquid assets**
	Of which: (i) Cash in hand and cash equivalent
	(ii) Balance with central bank
	(iii) Balance with other banks and financial institutions
FS49	**Shari'ah-compliant high-quality liquid assets (HQLA)**
	Of which: (i) Level 1 assets
	(ii) Level 2A assets
	(iii) Level 2B assets
Additional series for Shari'ah income distribution	
FS50	**Total income from assets funded from PSIA**
	Of which: (i) Income from unrestricted PSIA
	(ii) Income from restricted PSIA
FS51	**Income distributed to IAH from assets funded by PSIA**
	Of which: (i) Income distributed to unrestricted PSIA
	(ii) Income distributed to restricted PSIA
FS52	Total assets managed under off-balance sheet RPSIA
FS53	RPSIA assets reclassified as on-balance sheet during the period
Additional "exposure" series for leverage indicators	
FS54	Total on-balance sheet assets
FS55	Derivative exposures
FS56	Securities financing transaction exposures
Additional series sensitivity to market risks	
FS57	Number of large exposures
FS58	Value of large exposures
Additional series on SME activities	
FS59	Total amount of financing to small and medium enterprises (SME)

LIST OF *TAKĀFUL/RETAKĀFUL* INDICATORS (GENERAL AND FAMILY)

I: Prudential *Takāful* Indicators

1.	**CAPITAL ADEQUACY**
TP01	Risk-based capital adequacy ratio/solvency capital requirement (SCR)
2.	**ASSET QUALITY**
TP02	Technical reserves ratio
TP03	(Real estate unquoted equities + debtors)/total assets
TP04	Receivables/gross premium *retakāful* recoveries
TP05	Equities/total assets
TP06	Contributions receivable to written contributions
3.	***RETAKĀFUL* AND ACTUARIAL**
TP07	Risk retention ratio
TP08	Survival ratio (claims)
4.	**MANAGEMENT SOUNDNESS**
TP09	Operating expense ratio
TP10	Gross premium/number of employees
TP11	Assets per employee
5.	**EARNINGS AND PROFITABILITY**
TP12	Loss ratio
TP13	Claims ratio
TP14	Expense ratio
TP15	Investment income/net premium
TP16	Investment income/investment assets
TP17	Combined ratio
TP18	Return on equity (ROE)
TP19	Return on assets (ROA)
TP20	Total investment assets to shareholder equity
6.	**LIQUIDITY**
TP22	Current ratio
TP23	Liquid assets to current liabilities

II: Additional Prudential *Takāful* Indicators

TA01	Underwriting revenues/underwriting profit
TA02	Operating and management expenses
TA03	*Wakālah* fee
TA04	Net profit (after taxation/*zakat*)
TA05	Distribution of channel
TA06	*Takāful* penetration rate
TA07	*Takāful* density rate
TA08	Liquid assets to current liabilities
TA09	Gross retained premium
TA10	Contribution in *takāful*

III: Additional Prudential Indicators Specific to Family *Takāful*

TF01	Number of of new business certificates of direct *takāful* operators
TF02	Number of certificates in force of direct *takāful* operators
TA03	Participating in new business: Number of certificates (policies) or contributions
TF04	Participating in new business: Business in force
TF05	Distribution/line of business
TF06	Termination or expiry: Number of certificates (number of policies)

IV: Structural *Takāful* Indicators

TS01	Number of *takāful* operators
TS02	Total assets of *takāful* funds
TS03	Total contributions
TS04	Total equities
TS05	Net contributions
TS06	Total claims
TS07	Net claims
TS08	Changes in *qard*
TS09	Technical reserves
TS10	Surplus/deficit in the PRF
TS11	Total liabilities
TS12	Total liabilities to shareholders' equity (leverage)
TS13	Total liabilities to total assets (leverage)
TS14	Admissible assets to total assets

LIST OF ISLAMIC CAPITAL MARKETS (ICM) INDICATORS

I: *Ṣukūk*

S01	**Total number of *sukūk* issued**
S01a	Total number of *sukūk* issued by currency of denomination
S01b	Total number of *sukūk* issued by type of issuer
S01c	Total number of *sukūk* issued by economic sector
S01d	Total number of *sukūk* issued by type of Sharīʻah-compliant contract
S01e	Total number of *sukūk* issued by use of proceeds
S01f	Total number of *sukūk* issued by tenor
S02	**Total value of *sukūk* issued**
S02a	Total value of *sukūk* issued by currency of denomination
S02b	Total value of *sukūk* issued by type of issuer
S02c	Total value of *sukūk* issued by economic sector
S02d	Total value of *sukūk* issued by type of Sharīʻah-compliant contract
S02e	Total value of *sukūk* issued by use of proceeds
S02f	Total value of *sukūk* issued by tenor
S03	**Total value of *sukūk* outstanding**
S03a	Total value of *sukūk* outstanding by currency of denomination
S03b	Total value of *sukūk* outstanding by type of issuer
S03c	Total value of *sukūk* outstanding by economic sector
S03d	Total value of *sukūk* outstanding by type of Sharīʻah-compliant contract
S03e	Total value of *sukūk* outstanding by use of proceeds
S03f	Total value of *sukūk* outstanding by tenor
S04	**Total value of *sukūk* restructurings**
S04a	Total value of *sukūk* restructurings by type of issuer
S04b	Total value of *sukūk* restructurings by economic sector
S05	**Total value of *sukūk* defaults**
S05a	Total value of *sukūk* defaults by type of issuer
S05b	Total value of *sukūk* defaults by economic sector

II: Sharīʿah-Compliant Equities

E01	**Sharī'ah-compliant equities**
E01a	Total value (market capitalisation) of Sharī'ah-compliant equities issued by economic sector
E01b	Total number of Shari'ah-compliant equities

III: Sharī'ah-compliant Fund Management

F01	**Total number of Sharī'ah-compliant funds**
F01a	Total number of Sharī'ah-compliant funds by asset class
F01b	Total number of Sharī'ah-compliant funds by type of funds
F02	**Sharī'ah-compliant assets under management**
F02a	Sharī'ah-compliant assets under management by asset class
F02b	Sharī'ah-compliant assets under management by type of funds

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FORWARD

The issuing of the Revised Compilation Guide of Prudential and Structural Islamic Financial Indicators (PSIFIs), 2019 takes a place at a time when stakeholders of the Islamic financial services industry (IFSI) have reiterated the need for a guide with standardised methodology of data collection, compilation and dissemination among institutions offering Islamic financial services (IIFS), that will address the latest regulatory developments in the industry. In addressing latest global and domestic regulatory developments, the revised version of Compilation Guide on PSIFIs, 2019 covers guidance on collection, compilation and dissemination of PSIFIs for banking, capital markets and *takāful* institutions offering Islamic financial services.

The revised Compilation Guide attempts to standardise the adoption of conceptual frameworks and relevant measurement principles that support the reporting structure and system so as to promote international data comparability; that is, to provide uniform guidance to national data compilers in particular on the concepts, definitions, techniques and any other aspects related to the compilation and dissemination practice, and hence provide an internationally comparable set of indicators. Besides, the Compilation Guide encourages the compilation and dissemination, at the national level, of core, additional and structural indicators, expressed in percentage or ratio terms, as well as to facilitate the eventual transmission of these internationally comparable indicators together with their underlying data series.

While IFSI longed for available statistical information and cross-country historical data with sufficiently long time-series, Article 4 of the IFSB's Articles of Agreement mandates the IFSB to establish the global database of the IFSI. In this regards, the IFSB established a database for Islamic banking sector called Prudential and Structural Indicators for Islamic Financial Institutions (PSIFIs) which was launched in April 2015. The IFSB also considered it essential to have a well-developed global database on Islamic finance to track the progress of the industry and review its risks and vulnerabilities in developing its international prudential standards for the industry.

This revised Compilation Guide, draws upon compilation and dissemination experiences at the domestic and global levels, and is intended to be a comprehensive document that explain ways of compiling core, additional and structural indicators, as well as underlying data on detailed financial statements, to assist data suppliers and compilers and the PSIFI users. The Compilation Guide also intends to be consistent with the IMF's guide for Financial Soundness Indicators (FSIs), but adapted appropriately to cater for the specificities of IIFS.

I hope the Compilation Guide will provide a better understanding and guidance to all stakeholders in the compilation and dissemination of macro-level data of Islamic finance across jurisdictions and sectors.

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

Bismillahirrahmanirrahim

Allahumma salli wasallim `ala Sayyidina Muhammad wa`ala ālihi wasahbihi

PART I: DEVELOPMENT OF ISLAMIC FINANCIAL SERVICES INDUSTRY AND PRUDENTIAL AND STRUCTURAL INDICATORS PROGRAMME

CHAPTER 1: INTRODUCTION

1.1 Background

1.1.1 History of the Prudential and Structural Islamic Financial Indicators Program

1. The development of a database on prudential and structural indicators for the Islamic financial system (PSIFIs) emerged from the need to address the limitations in the availability of consistent and reliable statistical information on the Islamic financial services industry (IFSI) and its soundness and risks. The importance of monitoring the developments and stability of the IFSI has been underpinned by its rapid growth and increasing systemic significance in domestic markets. Notably, while the industry demonstrated resilience during and after the Global Financial Crisis (GFC), it was not entirely immune to the macroeconomic environment and the turbulence faced by the overall financial system. The lessons from the crisis further highlighted the need to collect crucial data that will enable the timely identification of key indicators of resilience not only for the conventional system but also those specific to the Islamic financial system.

2. Prior to the establishment of the PSIFIs database, the data available from sources on Islamic financial institutions were incomplete in coverage and lacked comparability across countries and institutions. Most existing data platforms provided micro-level data or information on individual Islamic banks, while others published macro-level data aggregated from individual Islamic financial institutions. These sources of data posed limitations in terms of coverage of jurisdictions, the availability of a diverse range of indicators, and the application of consistent compilation methodologies. In addition, the lack of sufficiently long historical time series on the Islamic financial services sector also presents constraints, particularly in terms of accurate assessments of developments in the sector and the use of appropriate quantitative impact analyses in the development of international prudential standards for the Islamic financial services sector.

3. Recognising the challenges posed by the lack of comprehensive and consistent data on important aspects of the IFSI, the development of a database on the industry was considered critical in order to identify and address macroprudential issues and systemic risk, monitor the development of indicative factors, and assess the impact of the implementation of regulatory standards.

4. In light of these considerations, the Islamic Financial Service Board (IFSB) Council, in its fifth meeting held on 22 December 2004 in Jeddah, Saudi Arabia, passed a resolution mandating the IFSB Secretariat to undertake an initiative towards establishing a global prudential database of Islamic financial services statistics. The mandate was in line with Article 4(h) of the IFSB's Articles of Agreement, which stipulates that one of the IFSB's objectives is "to establish a database of Islamic banks, financial institutions and industry experts".

5. The development of the database was undertaken in several consecutive phases. During the first phase, the IFSB drafted an initial study report. Based on the recommendations of that report, the IFSB Secretariat set up a task force comprising 21 IFSB members from central banks/monetary authorities, the Islamic Development Bank (IDB), the Asian Development Bank (ADB) and the Bank for International Settlements (BIS) to advise and provide assistance in establishing the Prudential Islamic Finance Database (PIFD). The PIFD task force agreed on a number of actions, including the development of a framework for the compilation of Islamic finance indicators, which was subsequently referred to as the *Compilation Guide on Prudential*

and Structural Islamic Finance Indicators (hereafter "the Compilation Guide"). The PIFD task force also agreed to focus initially on banking and near-banking institutions offering Islamic financial services (IIFS) and to conduct a survey among IFSB member countries to assist the task force in drafting the Compilation Guide. The findings of the survey helped the task force to identify a set of core and encouraged indicators, and to determine the gap between the data deemed desirable based on perceived usefulness and the data considered feasible to compile and disseminate based on current country practices. A guide to the compilation of the finalised indicators was prepared in 2006, which provided the foundation of the prudential Islamic finance database. The Compilation Guide was adopted by the IFSB Council in its 10th meeting held on 26 March 2007 in Kuala Lumpur, Malaysia.

6. Following the completion of the first phase, the IFSB initiated the second phase of the project, which included, among other activities, a pilot study, the development of a standard reporting template, and revision of the Compilation Guide to reflect global regulatory developments, including Basel II. The revised Compilation Guide was approved by the IFSB Council in its 18th meeting held in Amman, Jordan, on 31 March 2011.

7. To initiate the third phase of the project, the IFSB prepared a medium-term plan. The IFSB Council, in its 24th meeting held on 27 March 2014 in Bandar Seri Begawan, Brunei Darussalam, approved the plan and agreed to proceed with phase III of the project. The main objectives of the third phase were to start the collection, compilation and dissemination of data, and to revise the Compilation Guide to reflect new global developments.

8. During this phase, the IFSB established a new task force on the PSIFI. The task force finalised an updated set of indicators, taking into consideration the existing set of PSIFIs, newly issued IFSB standards, Basel III-related developments, modifications in the set of Financial Soundness Indicators (FSIs) compiled by the International Monetary Fund (IMF), and the analytical needs of the *Islamic Financial Services Industry Stability Report*. Following the finalisation of the revised indicators, a Supplement to the Compilation Guide was compiled to reflect the new set of indicators, outlining the changes to the indicators, formulas and statistical methodologies. The changes were based on experiences of the IFSB in working with countries to compile and disseminate the PSIFIs data, and on recommendations and discussions that took place during a series of capacity-building workshops held with the task force ~~Task Force~~ members. Subsequently, in 2015, the IFSB began to collect the finalised sets of indicators from participating countries and to officially disseminate PSIFIs data.

9. Work in 2017 and 2018 expanded the scope of the project in two important directions: finalisation of the Detailed Financial Statements (DFS) framework for collection of the income statement, balance sheet and key memoranda on the Islamic banking sector; and finalisation of frameworks and initial data collection for *takāful* (Islamic insurance) and Islamic capital markets (ICM). Separate chapters have been added to the Compilation Guide in each of these areas.

10. In line with the aforementioned developments, the *Compilation Guide on PSIFIs 2019* presents a second revision that supersedes the 2011 revised Compilation Guide, providing updated guidance on the adoption of conceptual frameworks and compilation methodologies in accordance with the latest developments and on the relevant international regulatory, accounting and statistical standards. This Compilation Guide will henceforth serve as the main reference guide for PSIFIs.

1.1.2 Objectives of PSIFIs

11. The PSIFIs database serves to facilitate macroprudential analysis and assessment of the structure and state of development of the IFSI. The PSIFIs, in addition to providing insight into important determinants of the macroeconomic and prudential soundness of the IFSI, also support to the concurrent analysis of the structure and development of the IFSI to help gauge its contribution to economic growth and the overall development of the Islamic financial sector.

Deliberating on these purposes, the PIFD task force formed during phase I of the project agreed on five principal objectives of the PSIFIs project:

a. *to facilitate the monitoring and analysis of the soundness and stability of the IFSI through a set of prudential, structural, and financial strength indicators, as well as by fostering cooperation among central banks/monetary authorities and other relevant supervisory authorities;*

b. *to support and help coordinate the formulation, development, and enhancement of appropriate international prudential standards by the IFSB;*

c. *to help promote the development of the IFSI as a vehicle for stimulating economic development and reducing disparities in economic progress between nations;*

d. *to help strengthen transparency and international comparability of domestic IFSI in order to facilitate their integration into the international financial system through public accessibility to the PSIFIs and other published cross-country industry data in IFSB research reports; and*

e. *to help ascertain the market shares of Sharī'ah-compliant financial transactions, products, and services as a percentage of the entire financial system, at both the national and global levels, so as to gauge the performance of the IFSI at any given time.*

12. The importance of PSIFIs has increased in recent years with both the steady growth in Islamic finance and steps taken by the IMF to formally monitor Islamic finance in terms of surveillance and the application of core principles in banking supervision of Islamic banks. Simultaneously, the United Nations (UN) has undertaken a review of how to best cover Islamic finance within its System of National Accounts. The broad scope of data compiled by the IFSB on the IFSI contributes to better understanding of the role of Islamic finance in all the aspects mentioned above.

13. The aforementioned objectives served as the basis for the selection and development of the PSIFIs, capturing the specificities of the IFSI while also complementing existing indicators of financial soundness.

1.1.3 Need for a Revised Compilation Guide

14. The primary purpose of revising the Compilation Guide is to update the concepts and definitions of the set of indicators, and to provide guidance on the sources and techniques used for their compilation and dissemination, reflecting the changes in the global regulatory landscape.

15. The Guide serves the compilers and users of the PSIFIs by promulgating their definitions and providing guidance on their concepts, data sources, accounting principles, compilation practices and computational techniques, and methodological issues that may assist in their accurate interpretation and use.

16. The Guide encourages the adoption of consistent methodologies for the compilation of PSIFIs to enable comparability of aggregated PSIFIs data for the Islamic banking sectors of the reporting jurisdictions, as well as of aggregated data for the industry as a whole, to support national and international surveillance of the IFSI. Accordingly, the general guidance provided on compilation methodologies is aimed at providing common methodologies to enhance the comparability of the data across countries, while the discussions in the Guide on conceptual approaches are based on the need to manage the heterogeneity in country practices and allow flexibility in reporting frameworks across the IFSB membership.

17. Contributing to more consistent methodologies and enhanced analysis of the soundness and structural development of Islamic finance is the introduction in this Guide of detailed financial statements that cover the aggregated income statements, balance sheets and memoranda items for the Islamic financial sector. These accounts have become more comparable over recent years because of increased application of the International Accounting Standards (IAS)

and the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) standards. Moreover, the Guide applies numerous comparable standards across Islamic financial subsectors (banking, *takāful* and ICM), as steps fostering greater analysis of the full Islamic financial sector.

18. The Guide also enhances the transparency of the computation methodology of the PSIFIs used in the analysis of the Islamic banking sector in future IFSB publications, including the *IFSI Stability Report*, to provide the general public with a greater understanding of how the indicators are calculated.

19. Overall, the Compilation Guide aims to create a statistical and conceptual underpinning for the PSIFIs on the basis of a methodological framework, presented in the ensuing chapters, which draws upon and complements, to the extent possible, existing international statistical, accounting and supervisory standards.

1.2 Coverage and Application of the Compilation Guide

20. In developing the guidance on definitions and compilation of PSIFIs, the Guide draws upon several international standards and guidelines, including the IMF's revised *Financial Services Industry Compilation Guide 2019*, the System of National Accounts 2008 (SNA 2008) [updated from SNA 1993], the AAOIFI Accounting, Auditing, and Governance Standards (December 2015), and the International Financial Reporting Standards (IFRS) promulgated by the International Accounting Standards Board (IASB). The accounting and supervisory standards have continued to evolve roughly parallel to the development of the PSIFI methodology. This Guide is believed to be current with the standards cited above, but compilers should be aware that the international standards might continue to evolve and affect national reporting practices.

21. While there are many similarities across the mentioned international measurement systems, the conceptual approach presented in this Guide provides flexibility to accommodate differences between country practices and to meet the needs of macroprudential analysis. Chapter 3 explains in further detail how the guidance set out in the Financial Services Industry Guide, SNA 2008, AAOIFI and IFRS relates to the requirements of this Guide.

22. The Guide also provides methodological guidance on measurement of PSIFIs intended to capture information specific to IIFS. While there is some reliance on existing measurement systems and prudential indicators of financial soundness, the needs of prudential and structural analysis for the Islamic financial system may be different in some aspects from those addressed by the existing systems. This is reflected in the indicators and the frameworks discussed in this Guide.

23. The scope of coverage of the PSIFIs comprises banking and near-banking services that comply with Sharī`ah rules and principles, *takāful* and ICM. These subsectors cover what is believed to be the most important components of the Islamic financial sector, but do not cover all Islamic financial activities. In this Guide, an IIFS is defined as a financial institution involved in financial intermediation whose major activities are to receive funds/deposits or close substitutes and/or to extend financing or to invest in securities as intermediaries or on their own account, in accordance with Sharī`ah rules and principles.

24. The term "banking and near-banking IIFS" is largely consistent with "deposit takers" as defined in the IMF's Financial Services Industry Guide, with "deposit-taking corporations except the central bank" as defined in the SNA 2008, with "banks" as defined in the BIS's locational and consolidated international banking statistics (in its 2013 guidelines for reporting BIS international banking statistics), and with "monetary financial institutions (other than central banks)" as defined by the European Central Bank (ECB) in the European System of Accounts (ESA 1995).

25. In most PSIFI reporting jurisdictions, financial institutions offering banking services or deposit takers are defined under banking or other similar laws for supervisory and regulatory purposes. However, the scope of IIFS in the banking sector referred to in this Compilation Guide includes

banking corporations (other than central banks) and other types of financial corporations (other than central banks) that receive funds/deposits and/or extend financing in a Sharī`ah-compliant manner. The Guide defines this institutional sector as "banking and near-banking IIFS". Banking and near-banking IIFS are those institutions that are primarily involved in receiving funds by way of deposits or any other close substitutes (such as issuance of short-term certificates of deposit and investment accounts to mobilise financial resources), and in redirecting these funds towards productive uses in various economic activities by using funding and financing instruments that are in accordance with Sharī`ah rules and principles. These instruments are similar *in varying degrees* to conventional demand and time deposits but are based on different contractual structures to ensure compliance with Sharī`ah rules and principles. This definition includes both full-fledged Islamic banks and "Islamic windows"[1] of conventional banks. Financial institutions whose funding and investment strategies suggest that they are non-bank financial institutions should be classified elsewhere.

1.3 Structure of the Guide

26. The Compilation Guide is presented in five parts.

Part I provides an introduction to the PSIFIs project and development of the Islamic finance industry.

- Chapter 1 introduces the Guide.
- Chapter 2 describes the Islamic financial services industry.

Part II, on the accounting standards and frameworks, provides specific guidance on the accounting principles underlying data compilation, the definitions of the individual series used to calculate the ratios, and guidance to compilers on aggregation and consolidation of the data. This part defines the accounting standards and frameworks used to compile PSIFIs given that IIFS use a diverse range of accounting standards, which can affect how the PSIFIs are compiled in each country, as well as comparison of PSIFIs between countries.

- Chapter 3 covers financial accounting principles relevant to the PSIFIs.
- Chapter 4 defines the statistical standards for PSIFIs, including concepts and approaches to consolidation and aggregation of data.
- Chapter 5 outlines the detailed reporting and accounting from which the series required to calculate the PSIFIs can be identified and defined. The Islamic banks' aggregate income statement, balance sheet and PSIFI memoranda items are encapsulated in the DFS forms presented in this chapter.

Part III provides definitions of the indicators and specific guidance on how to calculate the individual PSIFIs.

- Chapter 6 defines the PSIFIs for Islamic banks and Islamic windows.
- Chapter 7 covers indicators for *takāful* (Islamic insurance).
- Chapter 8 covers indicators for Islamic capital markets.

[1] An Islamic window is a branch or dedicated unit of a conventional financial institution that provides Sharī'ah-compliant banking services. Windows must be segregated from their conventional parent.

- Chapter 9 provides guidance on the compilation of metadata for the PSIFIs.

Part IV provides advice on practical compilation and dissemination issues that are likely to be faced by compilers.

- Chapter 10 provides guidance on practical aspects of the compilation of data by country compilers, the transmission of data to the IFSB, and dissemination of the data.

- Chapter 11 addresses managerial issues with respect to the compilation and dissemination of the PSIFI data.

Part V provides information on analytical uses of PSIFIs in macroprudential analysis and surveillance of the industry.

- Chapter 12 discusses the PSIFIs in the context of macroprudential analysis, peer group analysis, and systemically important financial institutions.

- Chapter 13 looks at the analytical uses of the PSIFIs for surveillance of the industry using concentration and distribution measures and growth measures.

CHAPTER 2: PSIFIs AND THE ISLAMIC FINANCIAL SERVICES INDUSTRY

2.1 Overview of the Islamic Financial Services Industry and Initiatives

27. The IFSI is a rapidly growing component of the broader financial system that provides financial services compliant with the principles of Islamic commercial jurisprudence, referred to as "Sharī'ah-compliant". Among the main tenets of Islamic commercial jurisprudence are the elimination of interest payments in all its forms, the avoidance of speculation, the elimination of ambiguity or uncertainty in contractual terms, protection against exploitation, and avoidance of financing of forbidden activities. Thus, activities of IIFS are based on precepts such as profit-and-loss-sharing, avoidance of interest, avoidance of uncertainty, and reliance on asset-backed (such as lease-based and sales-based) transactions, as well as various social, moral and ethical considerations.

28. The Islamic financial system performs all of the functions associated with finance and thus has subsectors similar to the conventional system. These subsectors consist of, among others, the Islamic banking industry, Islamic capital markets (equity and bond markets, and Islamic investment funds) and the *takāful* industry.

29. There are three main employed types of IFSI structures in the world, namely: (i) dual systems where conventional and Islamic financial services coexist, with the latter consisting of both full-fledged IIFS and Islamic window operations at conventional financial institutions; (ii) dual systems with a clear separation of the conventional and Islamic systems, whereby only full-fledged IIFS are allowed to offer Sharī'ah-compliant products and services; and (iii) a fully Islamic financial system, in which only full-fledged IIFS are licensed to operate in a country.

Islamic banking

Funding

30. Funding sources for banking IIFS may include: (a) profit-sharing investment accounts (PSIAs) governed by *mudārabah* contracts (or *wakālah* contracts in some jurisdictions);[2] (b) liabilities in the form of non-PSIA Sharī`ah-compliant demand savings and current accounts (deposits) governed by *wadi'ah, qard* or *wakālah* contracts; (c) any other close substitutes for deposits in the form of financial instruments to mobilise financial resources that may not be readily transferable; (d) equities (share capital, shareholders' funds, etc.); and (e) *sukūk* and other asset-backed Sharī`ah-compliant securities issued by IIFS.

31. Sharī`ah-compliant savings and current accounts that are withdrawable on demand and/or transferable by cheques and other payment instruments are liabilities of IIFS, similar to demand deposits of conventional banks. In contrast, PSIA holders share in the profits and bear the losses on assets of IIFS. As such, PSIAs combine the features of conventional time deposits as well as equity claims on IIFS. PSIA as a funding source for an Islamic bank is an important unique feature of Islamic banking, characterised by the participatory nature in risks and returns.

32. PSIA holders, or "investment account holders" (IAH), can be grouped into two categories: (a) general or unrestricted IAH; and (b) specific or restricted IAH. As mechanisms for protection of IAH from volatile or low returns or loss of capital investment, it has become the practice for banking IIFS in a number of jurisdictions to set aside voluntary and prudential reserves as

[2] The *wakālah* model, strictly speaking, is not a true PSIA since it is built on the earning of specific fees by the *wakil* (agent) regardless of profit or loss from the underlying activity, and the entire profit will be attributed to the *muwakil* (capital provider). However, some jurisdictions consider it as a PSIA due to the fact that the *wakil* might receive part of the profit as a performance-related incentive if the realised profit exceeds a certain level. In such cases, in general terms, the *wakil* will take part of the profit on earnings from investors' funding, but it is not in essence 'profit-sharing' *from a Sharīah view*.

"internal buffers" built up from past returns in the form of a profit equalisation reserve (PER) and/or an investment risk reserve (IRR).

Financing

33. Financing assets for banking IIFS include (a) sales-based financing (*murābahah, bay` bithaman ajil, bay` al-inah, salam, istisnā`*, etc.); (b) lease-based financing (*ijārah, ijārah muntahia bittamlīk*, etc.); and (c) profit-sharing or equity-type financing (*mudārabah* and *mushārakah*).

34. Investments of banking IIFS are in the form of real/non-financial assets or financial assets. Financial assets may comprise equity-type assets (equity holdings or shares held in companies that meet specified Sharī`ah requirements) and undivided share of ownership rights or beneficial rights on cash flow-generating assets (*sukūk* based on various Sharī`ah-compliant contracts such as *ijārah, istisnā`, mushārakah*, etc.).

35. Banking and near-banking IIFS, unlike conventional banks, undertake risk-sharing activities with some of their fund providers and/or depositors. Subject to the nature and purpose of funding, the balance sheet of an Islamic bank may show no clear distinction between the "banking book" and "trading book" activities, since its sources of funds reflect combined activities usually conducted by commercial banks and investment bank/asset management companies.

2.2 Regulatory Developments

36. The GFC that began in 2008 brought to light a number of weaknesses in the banking sector, including excessive leverage, inadequate and low-quality capital, and insufficient liquidity buffers. It also highlighted poor governance and risk management demonstrated by mispricing of credit and liquidity risk and excessive credit growth. The crisis drew attention to the impact of the procyclical deleveraging process and the interconnectedness of systemically important financial institutions.

37. The IFSI, while also affected by the crisis, demonstrated resilience, which stemmed from multiple factors, including higher levels of capital and liquid assets held by IIFS, lesser involvement in financial instruments that experienced major problems during the crisis, and a lower level of integration with international capital markets, resulting in less exposure to the financial stresses developing within them. The IFSI also benefited from not having direct exposure to securitised products, as Sharī'ah principles do not permit the buying of debt. However, Islamic finance was affected by factors such as concentrated exposures to real estate and project finance, lack of market diversification, and lack of access to short-term liquid instruments.

38. In response to the threats revealed during the GFC, extensive global regulatory reforms were initiated that sought to improve the banking sector's ability to absorb shocks arising from financial and economic stress, thus reducing the risk of spillover from the financial sector to the real economy. Some reforms were intended to strengthen bank-level ("microprudential") regulation to increase the resilience of banking institutions in periods of stress. The reforms also had a macroprudential focus, addressing system-wide risks that can build up across the banking sector, as well as the procyclical amplification of these risks over time. Collectively, the new global standards address both institution-specific and broader, systemic risks. "Basel III: A global regulatory framework for more resilient banks and banking systems", along with the "International framework for liquidity risk measurement, standards, and monitoring", was first issued in December 2010 by the Basel Committee, which enhanced the Basel framework and strengthened and revised the three pillars established by Basel II (Pillar 1 – capital adequacy, Pillar 2 – effective supervision, and Pillar 3 – building market discipline through disclosure). A range of additional standards ancillary to Basel III have been issued – and are

continuing to be issued – that extend the standards or provide guidance regarding their implementation.

Takaful

39. Regarding *takāful* indicators, although insurance supervisory initiatives are lagging the banking sector supervisory responses to the GFC, work is under way to bolster international insurance regulation and supervisory practices. These measures include closer monitoring of the application of the International Association of Insurance Supervisors (IAIS) Insurance Core Principles and ongoing development of the Common Framework for the Supervision of Internationally Active Insurance Groups (Comframe), which includes creation of a global capital standard for insurance, as highlighted by the imposition of "Solvency II" requirements in the European Union (EU). The IFSB has also issued multiple standards and guidance notes during the past decade.[3] Recent IFSB initiatives in *takāful* include: IFSB-11: *Standard on Solvency Requirements for Takāful (Islamic Insurance) Undertakings* (December 2010); IFSB-14: *Standard on Risk Management for Takāful (Islamic Insurance) Undertakings* (December 2013); IFSB-18: *Guiding Principles for Retakāful (Islamic Reinsurance)* (April 2016)**;** and IFSB-20: *Key Elements in the Supervisory Review Process of Takāful/Retakâful Undertakings* (December 2018). A number of aspects of the insurance core principles and capital standards have been incorporated into a new set of PSIFIs for *takāful*, as described in Chapter 7.

Islamic Capital Markets

40. The IFSB has also created a set of indicators monitoring the development and activity in Islamic capital markets. These indicators help support the work of the IFSB in developing supervisory standards for ICM, such as FSB-19: *Guiding Principles on Disclosure Requirements for Islamic Capital Market Products (Sukûk and Islamic Collective Investment Schemes)* (April 2017) and IFSB-21: *Core Principles for Islamic Finance Regulation [Islamic Capital Market Segment]* (December 2018).

Others

41. Aside from a greater focus on the above regulatory elements, the GFC also highlighted the need for indicators that comprehensively review the vulnerabilities of financial systems and led to re-examination of the types of indicators available to understand the vulnerabilities of financial systems and resources available to address problems. In response, the IMF extensively revised its set of Financial Soundness Indicators to capture the changes under way in bank supervision (Basel III) and to cover new types of vulnerabilities.[4] The review of the list of FSIs was also a response to the recommendations of the Data Gaps Initiative.[5]

42. In parallel with these developments and the updated FSIs, the IFSB revised the PSIFIs to better capture specific information on Islamic finance. The current set of PSIFIs has been updated and revised to reflect the discussed regulatory developments, capturing many of the soundness elements embodied in the new Basel standards, as well as the new and revised IFSB standards issued. The PSIFIs program is also in line with objectives and recommendations of the Data Gaps Initiative, aimed at capturing and monitoring the build-up of risk in the financial sector by strengthening international reporting on the financial health and soundness of financial institutions and enhancing the coverage of sectoral financial data sets while promoting timely, standardised and comparable finance statistics.

[3] To date, the IFSB has issued a total of 19 standards, two technical notes and six guidance notes.

[4] IMF, Modifications to the Current List of Financial Soundness Indicators, 13 November 2013, www.imf.org/external/np/pp/eng/2013/111313.pdf.

[5] The Data Gaps Initiative, created in 2009 by the G-20, developed 20 recommendations to address data gaps revealed by the GFC. An Inter-Agency Group on Economic and Financial Statistics (BIS, ECB, Eurostat, IMF, OECD, UN and World Bank) coordinates and monitors implementation of the statistical recommendations that monitor financial sector risk and analyse vulnerabilities and interconnections between sectors and countries.

2.3 Definition of the PSIFIs

43. Prudential and structural Islamic financial indicators are aggregate indicators of financial health, soundness, size and growth of the Islamic financial services industry in a country. They comprise aggregated institutional data, covering both full-fledged banks and Islamic banking windows of conventional banks. The macro-level data for stand-alone Islamic banks represent the aggregated data from separately incorporated or independent subsidiaries of other banks; the data from Islamic windows of conventional banks represent the Islamic finance activities of conventional banks – data for windows are reported and aggregated separately.

44. The PSIFIs are calculated and compiled by national regulatory or supervisory authorities (RSAs) and disseminated by the IFSB. The PSIFIs are designed to capture the specificities of IIFS, while also providing a set of standardised indicators that are broadly parallel to the framework for the FSIs developed by the IMF to help enable global comparability of Islamic finance statistics with those of similar conventional finance statistics.

45. The PSIFIs for banking cover several aspects of financial health and soundness. These include the capital strength of institutions; the profitability, quality and composition of their assets; liquidity; leverage; and exposures to the financial risk of the sector as a whole. A similar set of PSIFIs for *takāful* are supplemented with indicators of coverage of risk due to actuarial reserves and transfer of risks to reinsurers. PSIFIs for the Islamic capital markets cover three main areas: *sukūk*, Sharīʿah-compliant equities and Islamic fund management. The PSIFIs are intended for use in monitoring the development of positions (and exposures) and flows that could indicate an increase in the vulnerability of the Islamic financial sector and to help assess the potential resilience of the sector to adverse events.

46. While the core and additional PIFIs are in the form of ratios, data for the underlying numerators and denominators used to calculate these PIFIs are also collected and disseminated.

47. The addition in this Guide of detailed financial statements covering the aggregated financial accounts of the sector (income statement, balance sheet, and memoranda for Islamic banks and windows) is a valuable supplement to the ratios, numerators and denominators. The DFS provide analysts with information that enables them to experiment with different variations of the indicators and to examine other linkages of the accounts with the general economy. The full structural information can also facilitate comparison to microdata from individual enterprise financial reports and from various commercial databases that present bank-by-bank reporting. The DFS parallel the IMF's collection of similar accounts covering full national banking systems (conventional and Islamic combined).

48. Calculating the PSIFIs from data derived from internally consistent financial statements also contributes to the quality of the data. The IMF has reported that the introduction of full financial statements has resulted in improvements in FSI compilation in nearly all affected countries by forcing the indicators to be drawn from arithmetically balanced financial statements.

49. The structural indicators, which are collected in the form of absolute values, cover information on the size, growth and structure of the sector. This Guide, therefore, provides definitions for the indicators as well as their underlying series. Many of these underlying series are derivable from information contained in DFS balance sheets and income statements, but other data come from additional sources. This Guide takes the view that, as far as possible, the underlying series should be drawn from DFS financial statements.

50. The individual indicators that make up the PSIFIs are defined in greater detail in Chapter 6. In addition to definitions of the ratios and their underlying series, it is also vital that the data are supplemented by metadata (information about data) that provides further information about the data sources and compilation methodology for the data, so that users can better understand the data and its uses and limitations and to facilitate comparisons of data across countries. Chapter 10 covers the reporting of metadata.

2.4 Revisions to the PSIFIs

51. Many of the PSIFIs have been revised and updated to reflect the lessons learnt during the GFC and the subsequent revisions to the global regulatory frameworks (Basel III, accounting standards, surveillance procedures, etc.) and in corresponding IFSB standards. The current set of PSIFIs has also been updated in parallel with the IMF's revised list of FSIs. The update to the indicators reflects the discussions and feedback from the IFSB's task force on PSIFIs, as well as through inputs and collaboration with the IMF and other multilateral bodies via their participation in the task force, bilateral meetings and discussions. The new indicators have also taken into consideration the experiences of the IFSB in working with countries to compile and disseminate indicators.

52. The set of core prudential indicators that is the heart of the PSIFIs system includes indicators believed to best capture the strengths and vulnerabilities of the sector. Countries are strongly encouraged to compile all of the core indicators, which are largely consistent with the Basel III disclosure metrics, the IMF's FSIs, and other significant financial soundness indicators for the banking sector. The indicators that are closely related to the new Basel III and related IFSB standards should be given special emphasis because they provide supervisors, markets and the public with the most current information on the effective implementation of these new standards. This information can be vital in tracking the developments and consistency in the implementation of Basel and IFSB standards[6] and their effect on financial soundness, as well as providing information to enable valid comparisons of Islamic finance across countries, as well to ensure its stability in relation to conventional finance.

53. In comparison to the previous set of core indicators, the current set has been expanded to add nine series related to Basel III or indicators that demonstrated critical information during the crisis. A number of indicators have been dropped from the core set because they introduce further complexity, or they are microprudential in nature (i.e. being related more to the structure of the industry) and thus are not closely linked to the systemic financial strength and stability concerns that PSIFIs are designed to address.

54. The additional PIFIs have also been trimmed down to a more focused set of encouraged indicators. Several series that were previously in the additional set have been reclassified as core indicators on the basis of their importance to financial soundness analysis. National compilers are highly encouraged to consider the compilation of all the additional indicators, since they provide useful information on the Islamic banking sector, particularly as the set includes indicators that reflect the specificities of IIFS. While countries are strongly encouraged to compile the full set of PSIFIs, they may choose not to compile individual indicators based on a managerial decision, or due to the unavailability of data, or because of methodological or statistical problems. When compilers are unable to compile some indicators in close agreement with the standards in this Guide, they can consider compiling indicators that are similar to – although not identical with – the PSIFIs, provided ample metadata is provided to explain the differences from the PSIFIs and how interpretation or uses could be affected.

55. Indicators for *takāful* and Islamic capital markets are newly added in this Guide, as the IFSB's PSIFIs program extends to these new sectors.

2.5 Uses of PSIFIs in Surveillance of the Industry

56. PSIFIs are intended to provide benchmarks for assessing the financial resilience of the Islamic banking sector that are broadly comparable across countries. The indicators can serve as a useful tool, providing insights into the health and soundness of the Islamic banking sector of a country and, in particular, early identification of potential financial stability risks.

[6] Several countries compiling PSIFIs have not yet transitioned to Basel III. These countries need not compile PFISIs based on Basel III, but are urged to work to upgrade their supervisory systems to incorporate all the key elements of the Basel II 'Three Pillars' system and Basel III.

57. In compiling PSIFIs data, methodological differences between countries are expected, which can impede meaningful direct comparison of individual country data. However, the observation of trends among the data of different countries may provide indications of potential financial stability issues. PSIFIs in a country that falls outside the typical range for the indicator in other countries can be highlighted for special investigation or supervision.

58. The indicators within a single country can also provide useful signals about changes in financial soundness. As time-series lengthen, normal ranges of indicators and relationships between indicators within each country can be observed. Thereafter, significant changes in level or direction can provide possible indications about changes in soundness or financial turning points.

59. The PSIFIs can strengthen the analysis of the Islamic banking industry by enabling the monitoring of risks to the Islamic banking sector, and can complement surveillance work undertaken by national RSAs and by other international bodies.

60. The PSIFIs monitor and assess different aspects of risks to the financial stability of the Islamic banking sector, including financial strength (e.g. capital ratio), the ability of the financial system to absorb shocks, and vulnerability of the Islamic banking sector to credit risk exposures and loss of access to funding (e.g. asset quality and liquidity indicators, respectively). The PSIFIs should be analysed as a set, with each indicator unveiling specific aspects of the financial system to assess the risks to the Islamic banking system as a whole.

61. For banking, because of common series between the PSIFIs and FSIs, comparisons can be made between the two sets of indicators to obtain information regarding differences in behaviour between Islamic banks and a country's overall banking system. Such information can be important for policy implementation and surveillance. It is relevant in countries in which Islamic banking comprises more than 15% of total banking assets, which is the de facto marker of whether Islamic banking is systemically significant within an economy. Chapter 10 covers this sort of analysis, including the potential for constructing separate peer group information on Islamic banks versus conventional banks within a country.

62. The capacity to interpret the PSIFIs can be further enhanced through stress testing results as well as information on the supervisory system and financial infrastructure through core principles and assessment of the implementation of standards. The PSIFIs also support effective supervision of the IIFS in conjunction with the *Core Principles for Islamic Finance Regulation* (CPIFR). For example, the risks reflected by the PSIFIs can be reduced if supervisors take prompt remedial action on deficiencies identified in CPIFR reviews related to the effectiveness of supervision. Also related are the CPIFRs on the soundness of banking operations, including the risks indicated by the PSIFIs on asset quality and market risk. (Such risks can be lessened through good risk management and higher-quality bank capital.)

63. Future analytical work on the PSIFIs will be strengthened as the database expands to provide sufficient time-series data to enhance the role of PSIFIs in financial stability analysis. The PSIFIs can also strengthen the analytical work undertaken for the IFSB's annual *Islamic Financial Services Industry Stability Report*, as well as provide ratios that can be integrated into stress testing frameworks of RSAs and IIFS. To enhance the usefulness of the data for the above purposes, one of the primary objectives of the project is to improve the compilation of PSIFIs and establish regular collection and dissemination of the data.

PART II: ACCOUNTING STANDARDS AND FRAMEWORKS

CHAPTER 3: FINANCIAL ACCOUNTING PRINCIPLES

64. Data compilation for PSIFIs draws on financial accounting statements of IIFS, supplemented by additional detail about specific Islamic financial instruments and transactions. Most PSIFIs are based on sector-wide aggregations of data on individual IIFS and banking groups that are comprised of a parent bank with its subsidiaries and branches consolidated into a single financial report. The accounting and reporting principles applied by IIFS can vary, depending on jurisdictional requirements that reflect national (or international) accounting frameworks; as such, this can affect the cross-country comparability of PSIFIs data. The accounting and supervisory frameworks have evolved significantly in recent years, which has changed the data series. This evolution has tended to make indicators more similar between countries, but important differences continue in the compiled PSIFIs and in their meaning, depending on the accounting frameworks used and where countries stand in adopting evolving standards. In view of the lack of a common set of accounting standards across countries for Islamic finance, the Compilation Guide encourages national compilers to disclose in the metadata the accounting basis used to compile the PSIFIs, in accordance with guidance provided in Chapter 10. The metadata provide users with information on the data sources and accounting frameworks used to compile PSIFIs to help in interpreting the meaning and applications of the indicators.

65. This chapter outlines guidance on accounting frameworks that could be employed to compile and collect PSIFIs data. It draws on existing international standards, including the IFRS and AAOIFI standards, and on principles outlined in the SNA 2008. It is recognised that at this time, in practice, there is no full-fledged adherence by all countries to a specific internationally agreed prudential, accounting and statistical standard. Many countries use a combination of IFRS and AAOIFI[7] accounting and reporting practices, or national Generally Accepted Accounting Principles (GAAP).

66. This chapter first describes the major types of accounting frameworks and their structure, highlighting the key information used for PSIFIs. The chapter also highlights the importance of bridging the various reporting standards and disclosure practices of compiling countries. This approach is essential to enable fundamental characteristics of economic transactions and coherent accounting principles to be captured in the PSIFIs compilation and dissemination framework. The final section of the chapter examines principles for financial statements of Islamic banks and describes several accounting practices that are fundamentally different from the accounts of conventional banks.

3.1 Underlying Accounting and Reporting Frameworks

67. The data for compilation of PSIFIs are derived from aggregation of financial reports of individual banks (or banking groups) to the sector level. Three major bank reporting frameworks are used – regular bank financial accounting reports for which the IFRS is the international model, standards for Islamic banks promulgated by the AAOIFI, and bank supervisory and regulatory standards prepared by the Basel Committee on Banking Supervision (BCBS) and the IFSB. Other data can be taken from macroeconomic statistics based on standards in the System of National Accounts for national accounts and monetary and financial statistics.

68. This section focuses on individual bank accounts that provide many useful measures of overall financial, economic or prudential conditions used to compile PSIFIs. However, they do not cover all needed information on macroprudential conditions (overall market conditions,

[7] AAOIFI (2015). Accounting, Auditing and Governance Standards.

interactions between banks, gaps or double-counting, etc.) for which supplemental information is needed.

3.1.1 IFRS (International Accounting Standards)

69. The IFRS has become the international standard for financial accounting standards for conventional banks and other businesses to report their statements of income, balance sheet, owners' equity, other comprehensive income and other important financial transactions. Legacy accounting systems – often called Generally Accepted Accounting Principles – still exist in some countries, but this Guide treats the IFRS as the applicable international standard.

70. The IFRS is a comprehensive set of standards and interpretations built up since 1973. Under its current structure, an International Accounting Standards Board, operating under scrutiny of an international foundation and international agencies and industry groups, examines accounting issues, then issues non-binding standards and interpretations for adoption by national or regional authorities into their accounting and legal frameworks. Widespread adoption of the IFRS over the past decades has fostered much greater convergence between countries' accounting standards, although specific country standards continue to differ to a degree from each other.

71. In many countries, the IFRS or other national accounting standards apply to all banks – conventional and Islamic. Because the IFRS were developed without consideration of Islamic banks, Islamic financial activity reported per the IFRS could be distorted – for example, by requiring that PSIA and their remuneration be reported as interest-paying deposit liabilities. The AAOIFI has promulgated a parallel set of standards that reflect the unique characteristics of Islamic finance (as described in the next section). Since 2011, the IASB and AAOIFI have gradually increased their cooperation to make the frameworks more compatible.

72. The extent of application of IFRS differs between countries. The IFRS standards have evolved over the past decades, including some major recent changes resulting from the GFC. Countries legally adopt and implement the standards at different paces; some countries have only partially adopted the IFRS and have a mix of the IFRS and pre-existing national accounting standards. This Guide treats the IFRS as the prevailing international standard but recognises that not all countries have fully adopted the standards.

73. In line with the IFRS and AAOIFI standards, the compilation or interpretation of PSIFIs is described below.

    a. *Standard three-part balance sheet:* The balance sheet framework shows that assets equal liabilities plus equity. (There is no provision for quasi-equity instruments classified between liability and equity, as is sometimes proposed for PSIAs used by Islamic banks.)

        i. Assets are financial instruments owned by or investments made by the bank that earn income for the bank, but also incur risks for the bank, such as the chance of default or change in price.

        ii. Liabilities are obligations of a bank to make payment. Funds placed in a bank are liabilities commingled with the bank's own funds and incur an obligation of the bank to make repayment and pay a return such as interest.

        iii. Equity equals assets less liabilities. Equity instruments have a residual claim to the net income and assets of the bank after payment of liabilities.

    b. *Deposits are liabilities:* The IFRS defines liabilities as financial instruments that require the bank to pay cash or other financial assets in order to redeem or repurchase a financial instrument. Deposits and accrued interest on the deposits are liability obligations of the bank to make payments.

    c. *Two bases for valuation of financial assets:* The IFRS values most financial assets and liabilities on a "fair value" basis in each accounting period at their market price or equivalent; loans and receivables should be reported on an amortised cost basis subject to an impairment loss. This standard appears broadly applicable for Islamic financial

assets. The model replaces an earlier valuation standard (still used in some countries) based on the intention of holding a financial instrument.

d. *Impairment:* Assets reported on the amortised cost basis[8] must be reviewed every regular accounting period and write-downs taken to reflect deterioration in asset quality, increased chance of default, or likely inability to recover the full value of the instrument over its remaining life. Impairment losses must be reported on the asset side of the balance sheet, either through a direct write-down or by recording a specific loss provision.

e. *Consolidation and subconsolidation:* A single consolidated financial report should cover the entire corporate enterprise (or "banking group" consisting of a parent bank and its subsidiaries and branches), including operations anywhere in the world regardless of their industry. This is referred to as "cross-country, cross-industry" consolidation.

74. Consolidation rules were strengthened because of the GFC to ensure greater coverage of relevant aspects of the financial strength and risk of the enterprise. Consolidations are now more likely to include special purpose vehicles (SPVs – formally called "structured entities") set up and controlled by the parent bank.[9] Minority interest covers treatment of equity investment of other parties in a subsidiary controlled by an enterprise. The subsidiary's financial assets and liabilities should be consolidated into the accounts of the controlling parent and the equity investment by the other party recorded as "minority interest" in the equity section of the consolidated report.

75. Separate "subconsolidated" reports might be prepared for lower tiers of the corporate structure (e.g. a bank subsidiary organised in a different country from its parent) and for parts of the enterprise that have material differences from the rest of the enterprise.

76. Conventional banks sometimes organise Islamic financial activities into separate divisions, branches or subsidiaries called Islamic windows. Under IFRS, windows will be included within the consolidated financial accounts of the parent conventional bank, requiring interpreting the Islamic banking activity within the windows per IFRS rules. However, because of the material unique characteristics of Islamic banking, the segregation of Islamic financial activity from other bank activity, and the separate customer/investor base, this Guide recommends that subconsolidated financial accounts for Islamic windows be prepared. The PSIFI program has a separate reporting form for windows.

3.1.2 AAOIFI Standards

77. The AAOIFI standards for financial reporting reflect the unique features of Islamic finance, which operates under the Sharī'ah rules of encouraged or prohibited activities and using financial instruments that can differ substantially from conventional instruments. AAOIFI has stated that it believes that some Islamic transactions are not accurately reflected in the IFRS. As a result, the AAOIFI and IFRS income statements and balance sheets differ in several respects.

78. Some of the key differences from the IFRS are noted below.

a. *Different financial sector focus:* The AAOIFI standards focus on Islamic financial activity (banking, *takāful*, trust funds, other financial services, etc.) to convey an accurate picture of the Islamic financial activities and instruments. This is a "cross-country, specific industry" consolidation. The focus is on investment, trading and fee services, rather than on interest-generating activities. Specific Islamic financial instruments are used that have little or no direct equivalent in conventional banking. Financial activity is intended to serve social aims as assured by a Sharī'ah Council in each bank, and distributions from profits for charitable

[8] In contrast, assets carried on the balance sheet at fair value are assumed to reflect impairment-related declines in value on a current basis each accounting period.

[9] An important change in IFRS consolidation standards resulted from the GFC with the application of a "control" standard for consolidation in which the parent must consolidate all lower-level units and structures in which it exercises management control and which affect the income of the parent. This shift has tended to increase the scope of consolidation, including possibly consolidating in trusts, SPVs, or asset pools that had previously not been included or which had been treated off-balance-sheet.

purposes (***zakāh***) are required. These points affect the structure of the financial accounts and the classification of financial institutions.

b. *Participation banking:* Investors and depositors providing funding to IIFSs are encouraged to participate in investment accounts or trading activities that generate profits, rather than placing funds in deposits or securities that offer interest returns. Deposit-like accounts can be offered to the public that pay returns based on profits from investment or trading. Other unremunerated deposits are used for safekeeping purposes or to provide current account services.

c. *Prohibition of interest:* Islamic banks are not permitted to seek or offer interest returns. Unlike the IFRS, where accrued interest is a bank liability, distributions to IAH are not liabilities but investment returns on customer investment accounts in the bank. This difference has important implications for the structure of Islamic bank income statements.

d. *Smoothing of distributions and special reserves:* Because investment returns can vary, for competitive reasons Islamic banks can use special reserves or distributions from stockholders' funds to smooth returns to investors.

e. *Encouraged or prohibited activities:* Sharī'ah rules encourage some forms of financial activity and prohibit others. Islamic banks can participate in some types of financing and not in others, which can mean that Islamic and conventional banks can have different financial structures and types of financial assets. The differing portfolios can affect the soundness and risk profiles of Islamic banks versus conventional banks.

f. *Underlying goods and collateral:* Without a concept of interest earnings, Islamic financial instruments often generate income by sale or lease of underlying goods. The Islamic bank must have legal ownership of the underlying assets (which sometimes is only for an instant) during which period the bank incurs all the risks and rewards of holding the asset. These assets are reflected on the balance sheet under an item "Non-Financial Assets Related to Sales, Lease, and Equity Financing". Changes in the value of underlying goods and collateral under the terms of the Islamic financial instrument should in general be reflected in the income statement, but the treatment is unsettled at this point. An AAOIFI review is now under way as to whether the bank should apply the new IFRS 15 rules for recording revenue on delivery of goods under contract, or whether the arrangement should be treated solely as a financial instrument.

g. *Zakāh: Zakāh* is a religious obligation to make charitable contributions from the net income of the bank. Provisions taken for *zakat* are shown on the bank income statement.

3.1.3 Mixed Conventional and Islamic Systems

79. Several economies have complete Islamic financial systems, in which case reporting by banks will be closer to AAOIFI standards, but most economies with Islamic banking have mixed conventional and Islamic systems.

80. In terms of financial reporting, most countries with mixed systems follow an IFRS-based framework as their general model. Information on conventional and Islamic financial activity is commingled, potentially distorting both sets of data and losing identifiable information on Islamic finance. For example, if PSIAs at an Islamic window must be reported as deposits that generate interest returns, the effective mix of liability and equity positions of the bank reported in the financial statement can be distorted.

81. Over a longer term, accounting standards might change. The IFRS could review how Islamic financial practices fit into its framework and modify its framework as needed to generate more informative reporting. The IASB has set up an Islamic Finance Consultative Group for this purpose. The AAOIFI has also begun reviewing how its standards can be made more compatible with evolving IFRS standards – for example, issuing a revised standard on consolidation in 2015 to become more consistent with the new IFRS standards on consolidation.

82. The PSIFIs can provide supplemental information on the Islamic financial activity. Many of the PSIFIs parallel the IMF's FSIs, permitting comparisons between the two data sets; for example, in some economies the capital adequacy ratio for Islamic banks is higher than for all banks. Ideally, separate peer groups can be constructed for Islamic and conventional banks to allow direct comparisons of the two types of banks. (See Chapter 10 on peer groups.)

83. In terms of legal frameworks, monetary policy and taxation, Islamic banks might operate within a conventional environment – for example, liquidity and reserve requirements – and monetary policy instruments might involve holding official interest-bearing securities. The implications for reported financial accounts and bank activity could vary on a case-by-case basis.

84. In mixed systems, Islamic banks and conventional banks compete for business on both the funding and financing sides. This affects reporting standards for Islamic banks because, to be competitive with conventional banks, they sometimes include special reserves in their accounts designed to smooth the flow of profit distributions to IAH.

3.1.4 Supervisory Standards

85. National bank supervisors have long monitored the condition of banks, both through direct visits and discussions with banks and through the collection of data about operations that is used for "offsite" supervision. In most countries, these supervisory data provide most of the information used for PSIFIs.

86. Coverage of bank supervisory standards includes banks and related financial affiliates within a banking group, either on a stand-alone basis for single banks, or on a consolidated basis for affiliated banks in which a single consolidated report covers all banks within a group (including its holding company parent, because the holding company bears the entrepreneurial risk for the banking group). The Basel II framework clarifies that non-bank financial affiliates within the group such as securities affiliates are included (see section 3.2 on consolidated bank financial statements).

87. The modern era for bank supervision began in the 1970s when the G-10 countries formed the predecessor to the Basel Committee on Banking Supervision. The BCBS establishes standards for international banks and works to improve supervisory practice based on extensive consultations and a formal decision-making process, but countries are left to adopt them into their legal and supervisory frameworks. Nearly all countries have adopted the Basel standards, but not all countries have adopted the most recent generation of standards, called Basel III.

88. Much of the data used for supervisory purposes and the statistics produced are designed for specific regulatory purposes and can have unique definitions, classifications, ratios, etc. These data are designed to be applied to individual banks and might not readily add up to the sector level for statistical purposes. The aggregation of data on positions between banks within the reporting universe also needs to be explicitly considered. Supervisory data can be expensive to compile, might not link well with other established accounting or statistical systems, and might be obscure or confusing for users.

89. The Basel standards have evolved, becoming more comprehensive and generally stricter over time. Early work focused on improving the supervisory process by setting minimum standards for supervision, sharing information between supervisors, and enhancing oversight of international banking. This work led to the issuance of a "Concordat" in 1975 on responsibilities of home country and host country supervisors for bank foreign subsidiaries and branches.

90. *Basel I:* During the 1980s, concern rose that capital cushions at key international banks were deteriorating despite increased international risks. This led to the Basel Capital Accord in 1988 (now called Basel I), which held that the main risk to international banks was credit risk – the chance that a debtor to a bank would default. Basel I introduced the risk-weighted capital adequacy ratio, or CAR. The denominator was "risk-weighted assets" (RWA) that weighted both on-balance-sheet assets and off-balance-sheet positions by factors proxying the risk of their default. The numerator used a specific definition of capital called supervisory capital that was deemed to be strong and available to cover potential losses. Tier 1 capital comprised the

highest-quality equity capital available; tier 2 capital was also high-quality capital, but not quite as readily available. The minimum acceptable CAR was set at 8%. Neither the numerator nor the denominator could be derived directly from balance sheet information; additional information must be used to compile the ratio. Basel I was widely adopted.

91. *Market Risk Amendment:* In 1996 the Market Risk Amendment to Basel I introduced supplemental capital requirements to cover risks associated with positions in foreign exchange, equities, commodities and options. The Amendment also gave banks that met strict supervisory requirements the option to use their internal risk models to estimate their capital requirements.

92. *Core Principles for Effective Banking Supervision:* The BCBS recognised that strong supervisory organisations are needed to bolster the soundness of banking systems. In 1997, it issued the *Basel Core Principles for Effective Banking Supervision*, often called the "Core Principles", or BCP. The BCP encompassed 25 principles for supervision covering areas such as supervisor's authority and powers, information requirements, and the need for early intervention for banks in trouble. The BCP marked formal recognition of the need to strengthen supervisory organisations in emerging economies. The IMF and World Bank monitor the implementation of the Core Principles as part of their Financial Sector Assessment Program (FSAP).

93. The Islamic Financial Services Board was founded in 2003 to develop supervisory standards for Islamic finance, much of its program parallel to BCBS initiatives, but also encompassing *takāful*, Islamic securities markets, and the governance and supervision of Islamic financial institutions. The IFSB launched the PSIFI program to compile indicators of the soundness of Islamic banking systems and to support many aspects of the IFSB's work.

94. In 2004, the BCBS issued a new capital adequacy framework, Basel II, designed to make capital requirements more sensitive to risks. It is based on three "pillars". Pillar 1 covered capital requirements, and the inclusion of credit risk, market risk and operational risk in the framework, under both standard and internal risk modelling (IRM) approaches. Pillar 2 provided a comprehensive review of risk control measures by banks and supervisors (largely based on the Basel Core Principles). Pillar 3 introduced the concept of disclosure of banks' capital positions to strengthen market discipline and thus foster better banking practices. Banks were required to regularly publish in convenient form information on their supervisory capital along with their regular financial accounting statements.

95. The Global Financial Crisis in 2008 severely damaged banking systems across the world and forced recognition that banking systems faced multiple problems – too much leverage, inadequate sources of liquidity, excessive credit growth and inadequate capital buffers. Early actions included strengthening the Market Risk Amendment in 2009 and beginning an in-depth review of banks' trading books.

96. In 2010, a new framework called Basel III was introduced which, for the first time, took an explicit macroprudential approach, dealing with market-generated risks such as liquidity freezes, excessive credit growth, and provisioning cycles. It significantly strengthened and modified the CAR and introduced new tests related to leverage, liquidity, credit growth, market cycles and provisioning. These new indicators have been integrated into the IFSB's PSIFI program.

97. *Core Principles for Islamic Financial Regulation (CPIFR):* In 2015, the IFSB issued a set of core principles that regulatory and supervisory agencies should apply in monitoring their Islamic financial systems. The CPIFR closely parallels the BCP. Most of the principles are identical in the two sets, but a handful have been changed to reflect unique elements of supervision of Islamic banks. In 2017, the FSAP formally recognised the CPIFR as an international standard to be monitored in countries with systemically significant Islamic banking systems.

98. Work to further strengthen the Basel regime continues. For example, work is under way on creating a revised capital standard for market risk with a new and more stringent framework (sometimes called Basel 3.5) for the bank trading book and models used to measure its risk. Work is also under way on possible amendments to the CAR to address issues with risk weights and modelling approaches (nicknamed Basel IV). These initiatives are beyond the scope of this Compilation Guide, but could have impacts on the PSIFI program in the future.

99. Supervisory requirements have grown significantly over time and now require extensive reporting of financial activities. These data are important in order to understand the soundness of banking systems, including Islamic banking, and form the basis of many of the PSIFIs. The supervisory data themselves can be complex, often differ from data from regular financial reports, and countries are in different stages in their adoption of the supervisory frameworks, all of which can significantly affect their compiled PSIFIs. Therefore, whenever PSIFIs are compiled using supervisory data it is necessary to specify in metadata what framework is being applied and how the use of the data might be affected.

3.1.5 System of National Accounts

100. In contrast to the frameworks discussed above for reporting financial accounts of individual banks, including their global activities, the SNA is the macroeconomic statistical framework that measures aggregate economic activity within a single country – gross domestic product, balance of payments, monetary and financial statistics, and fiscal statistics, among others. The SNA framework and accounting rules apply to all economic actors in an economy, so that both sides of a transaction or financial position are identical. This symmetry allows tracking of economic impulses throughout an economy and permits the comparison of economic activity between different sectors within the economy.

101. The SNA defines the boundaries of a national economy, the major economic sectors, types of financial instruments, and statistical accounting rules (valuation, accrual, the timing of transactions, currency denomination, etc.). The rules are used to construct statistical building blocks detailing both sides of each financial transaction, by financial instrument, with standard measures of value and timing. These building blocks can be added together to construct "sectoral balance sheets" that cover all entities within a sector with "from-whom to-whom with-what instrument" detail. For example, the sectoral balance sheet for banks has the full asset, liability and capital positions, by instrument, by domestic or foreign currency, detailing which sectors have placed deposits in the banks and which sectors the banks have financed. The SNA uses a "domestic consolidation" basis covering transactions and positions within the country and treating any transactions or positions with other countries as with "non-residents" and external to domestic economic activity. For example, the accounts of a parent bank are consolidated with its domestic subsidiaries; however, transactions with a subsidiary in another country are excluded from the consolidation and treated as external to the consolidated domestic entity. This consolidation differs from the other frameworks (such as IFRS or supervisory standards), which consolidate affiliates (subsidiaries and branches) in other countries with the parent.

102. The SNA-based monetary statistics published by the IMF in *International Financial Statistics* provide good and very timely information on the structure of banks operating in a country. However, IMF monetary statistics do not provide separate information on Islamic banks; and thus the PSIFIs structural indicators are designed to collect some additional structural data for Islamic banks. The SNA-based data are also harmonised across the sectors of the economy and provide information on linkages between the financial sector's strengths and risks and impacts on other sectors of the economy. Thus the SNA data are a standard source of information about the activity of all banks – conventional and Islamic – within a country.

103. Beginning in 2017, the Intersecretariat Working Group on National Accounts (ISWGNA)[10] launched a project on the treatment of Islamic finance within the SNA. Two working groups were set up, one focused on issues of sectorisation and classification and the other on data collection and coordination between entities compiling information on Islamic finance. These working groups had not completed their work by the time this Guide was prepared.

[10] The ISWGNA is comprised of representatives of Eurostat, IMF, OECD, UN and the World Bank.

104. Finally, the SNA-based data do not compile some types of data needed for some PSIFIs, such as the capital adequacy indicators, asset quality, liquidity, profitability, etc., but can provide ample timely data to supplement the PSIFI indicators.

3.2 Consolidated Financial Statements for Individual Reporting Units

105. This section looks at the consolidated financial statements for banking groups. A banking group consists of a parent bank corporation and its subsidiaries and branches. Consolidation combines parts of a banking group into a single financial statement reported as a single economic entity.

3.2.1 Financial Accounting Consolidation

106. A major issue during the GFC was the practice by many banks in their financial statements of excluding significant parts of banking groups or treating risky financial arrangements as off-balance-sheet. Public reporting, supervisory information and financial soundness indicators, therefore, lacked full information on the soundness or risk of the banks. The IASB addressed this issue in 2011 with three new standards (IFRS 10: *Consolidated Financial Statements*, IFRS 11: *Joint Arrangements* and IFRS 12: *Disclosure of Interest in Other Entities*) that updated standards for consolidation by shifting to a concept of "control" by a parent of its subsidiaries and other components of a banking group. The new standards can significantly change the financial accounts of the banking groups.

107. The rules, which became effective in 2013, tend to increase the scope of the consolidated financial accounts, including the possible inclusion of special purpose entities (SPEs, or SPVs) which are called "structured entities". The rules also applied the control concept to subsidiaries partly owned by other parties by: (a) requiring that the controlling party's consolidated report cover the subsidiary's full assets, liabilities, equity and income; (b) recording other ownership in the subsidiary (above a 20–25% threshold) as "minority interest" within the controlling parent's consolidated report; and (c) prohibiting splitting the subsidiary's accounts between owners based on their ownership shares.

108. The control concept is broader than the traditional definition of majority ownership of voting shares of a subsidiary. First, it considers potential voting shares such as under equity options. Second, the parent (called the "investor" in the new standard) consolidates a subsidiary (called the "investee") when the parent (1) is exposed to variable returns (positive, negative, or both) from its investment in the subsidiary *and* (2) can affect the returns through its power over the subsidiary. Emphasis is based on the power to influence the subsidiary, rather than on holding of majority voting rights. This principle can be applied to all entities affiliated with the group, including SPEs (structured entities). The control concept thus opens up possibilities of inclusion within the consolidation of a broader range of entities, thereby providing a better picture of the group's soundness or risk.

109. The control concept requires application of significant judgment. The new standard requires the parent to disclose the rationale why it is deemed to control a subsidiary, and conversely to disclose why a subsidiary entity is not within the consolidation.

110. Application of the control concept beginning in 2013 might have affected or could affect PSIFIs reporting in some countries. Significant changes in the composition of banking groups should be noted in metadata.

111. A treatment of RPSIAs could be affected under the control standard. The bank should exercise judgment as to whether it is a principal over funds placed in RPSIA or is acting as an agent over the funds. The terms of accounts will dictate the extent of decision-making power by the bank, the type of remuneration of the bank, and the variability of returns to the bank. The control concept might require inclusion of RPSIAs as on-balance-sheet assets within the group consolidation whenever an Islamic bank is judged to be a principal because it actively manages the funds placed in the RPSIA and has returns based on its management of those funds.

Conversely, if the Islamic bank is judged to be an agent, the funds placed in the RPSIA are treated as off-balance-sheet and bank remuneration from the RPSIA is reported in a single line FS04, "IIFS share in income from restricted investment as *mudarib*". Metadata should note whether a country's financial accounting standards require on- or off-balance-sheet treatment of RPSIA, or whether treatment is on a case-by-case basis.

3.2.2 Subconsolidation

112. Subconsolidation is related to Basel II rules that the capital adequacy standard should not only be applied to the fully consolidated global banking group, but also for subconsolidated lower tier banking structures. Adequate capital should be required at every tier within the banking group. For example, a parent bank in country A with a subsidiary in country B which has a branch securities firm in B, should prepare a global consolidation that includes all three types of institutions and a second subconsolidation covering the two lower-tier operations in country B. Separate supervisory capital is required at both level A and level B.

113. Subconsolidated data can help assess financial soundness by focusing on the financial activity within a country. The global consolidation is cross-country in scope; however, outside the home country of the parent, subconsolidations should be required for subsidiaries in each country in which operations occur (host country) to permit host country supervision of the operations. Each subsidiary and its branches and affiliates operating in a specific country should compile subconsolidated supervisory financial reports and capital adequacy information for activity in that country. If the subconsolidated group includes only affiliates operating within a single country, it corresponds to the domestic consolidation used in macroeconomic banking statistics and IMF monetary statistics.

114. A subconsolidation is also appropriate where an entity is effectively separate from other parts of a banking group. In such cases, it is recommended that subconsolidated accounts be prepared for Islamic windows based on effective separation of the window's Sharī'ah-compliant activity from the non-compliant activity of the parent conventional bank. This is compatible with the IFSB's recommendation that windows be treated as a virtual branch within the conventional bank. The subconsolidated data for windows can also be used for the PSIFIs Windows form.

3.3 Principles for Financial Accounts of Islamic Banks

115. Some aspects of Islamic banking that differ from those of conventional banks affect the construction of financial accounts. They include Sharī'ah compliance, risk sharing and distribution of profits based on profit-sharing principles, unrestricted and restricted investment accounts, the prohibition of interest, the segregation of accounts of windows from conventional parents, and the smoothing of returns, among others. This section examines how the application of Sharī'ah principles to Islamic banking affects the construction of financial accounts of IIFS, so that they differ from conventional financial accounts, and the implications of these differences for analysis of Islamic banks' performance, financial activity and policy.

3.3.1 AAOIFI-Based Financial Accounts Standards

116. AAOIFI standards provide a set of Islamic accounting principles for financial accounting and reporting for IIFS, whereas IFRS/conventional accounting principles are inadequate to properly reflect the nature and reality of an IIFS's transactions. The AAOIFI has issued accounting standards for the international Islamic financial services industry that give guidance on, among other things, the presentation of financial statements for Islamic financial institutions (IFIs) and the accounting treatment for specific Islamic finance products and mechanisms.

117. The AAOIFI standards fill gaps in the accounting standards for Islamic institutions finance due to the unique aspects of Sharī'ah-compliant financial products and transactions that prevent

IFRS standards from being adopted in whole by IIFS, either due to Sharī'ah-compliance issues or because they do not fully deal with certain characteristics of Islamic banking and finance. In these cases, AAOIFI standards are issued to apply to topics that are covered by the IFRS standards, such as AAOIFI FAS 1 (*General Presentation and Disclosure in Financial Statements of IFIs*) which covers IAS 1 (*Presentation*), 7 (*Cash Flow*), and 18 (*Revenue*), among others.

118. AAOIFI standards also cover specific practices that are unique to Islamic banking and finance that are not covered by IFRS. In these cases, AAOIFI standards are issued to apply to those topics not covered by IFRS, such as FAS 2 (*Murābahah and Murābahah to the Purchase Orderer*) and FAS 7 (*Salam and Parallel Salam*), among others.

119. Other than the categories mentioned, IFRS can be adopted by IFIs, as these standards do not give rise to Sharī'ah-compliance issues and are adequate to cover the practices of IFIs. In these cases, the AAOIFI does not issue equivalent standards. IFIs adopting AAOIFI standards are also allowed to follow other standards if there are no equivalent AAOIFI standards. For example, IAS 10 (on events after balance sheet dates) and IAS 24 (on related party disclosures) are not covered by AAOIFI standards.

120. One of the main differences between the AAOIFI and the IFRS is their treatment of profit-sharing investment accounts. A major source of funds for an IIFS is its customers' unrestricted investment accounts. These funds are generally managed by the IIFS with *muḍārabah* investment accounts based on a profit-sharing agreement. AAOIFI standards require such unrestricted investment account funds to be presented in the statement of financial position as a separate item between liabilities and owners' equity. In contrast, based on IFRS, unrestricted profit-sharing investment accounts (UPSIA) would typically be considered as a liability (along with other deposits).

121. Major financing mechanisms for an IIFS are operating *ijārah* and *ijārah muntahia bittamlīk* (leasing that ends with transfer of asset ownership to the lessee). For both, the asset ownership rests with the IIFS throughout the lease term. AAOIFI standards require both operating *ijārah* and *ijārah muntahia bittamlīk* to be treated similarly to an operating lease. In contrast, based on IFRS, both operating *ijārah* (especially if the lease term is for a major part of the economic life of the leased asset) and *ijārah muntahia bittamlīk* (due to the transfer of asset ownership by the end of the lease term) would normally be classified and treated as a financial lease.

122. Another key consideration is on- or off-balance sheet treatment. As highlighted earlier, the structure of some types of Islamic finance products is similar to an asset management contract. The institutions will invest funds on behalf of a client in return for a fee or a share of the profit, and the resulting gains or losses are passed on to the customer. An example of such arrangements is restricted *muḍārabah*, in which the institution usually, in substance, acts as an agent for the customer to invest its funds in a specific asset based on the customer's request. As such, the accounts normally are treated off-balance-sheet; that is, they would not record any liability (or equity) account for monies invested by the customer or any asset representing the underlying investments.

123. However, some restricted *muḍārabah* should be treated on-balance-sheet. AAOIFI FAS 27 on investment accounts[11] – which replaces and supersedes FAS 5 and FAS 6 – specifies two conditions where restricted investment accounts under *muḍārabah* arrangements may be presented as on-balance-sheet accounts. For example, it recommends that profit-sharing *muḍārabah*-based investment accounts that provide the IIFS with authority over decisions regarding the use and deployment of the funds received are treated as equity of IAH and are presented as on-balance-sheet items.

[11] The Standard applies to investment accounts based on certain *muḍārabah* contracts, but not to own equity instruments, *wakālah* contracts, reverse *murābahah*, *mushārakah* or *sukūk*.

3.3.2 Legal, Statistical and Effective Economic Ownership

124. The principle of ownership and control is fundamental for statistical compilers in determining the reporting of an IIFS's financial assets, non-financial assets, equities of IAH, and liabilities. For an IIFS, a transfer of ownership of an asset may be in the form of sale, which produces legal ownership of the asset sold, or beneficial ownership, which renders the right to use the asset or obtain revenues by it.

125. The recognition of assets in the balance sheet of an entity requires the assets to have perceived measurable economic value, as well as the entity having ownership of the asset. Generally, an IIFS is obliged to legally possess the underlying assets, even for a brief period, with all the risks and rewards incidental to ownership, before it can resell or lease the underlying assets. On the assets side, financial assets are entities over which ownership rights are enforced by institutional units and from which economic benefits may be derived in the form of holding gains or property income. These may include *muḍārabah* assets or assets purchased for *murābahah* financing, which are reported in the form of inventory to be sold or transferred to the customers receiving the financing. The concept of ownership also pertains to non-financial assets. Non-financial assets are entities over which ownership rights are enforced by institutional units and from which economic benefits may be derived by their owners by holding or using them over a period of time. Non-financial assets may also include lease assets related to lease financing, with no condition of ownership transfer to the customer.

126. The United Nations System of National Accounts 2008 requires the recognition of changes in ownership in all cases on the basis of economic ownership, while previous manuals implied legal ownership. The new guidance distinguishes between legal and economic ownership, the economic owner being the entity that assumes risks or receives benefits from an asset.

127. Economic ownership is distinct from legal ownership, although in most cases the legal owner and the economic owner are the same. In SNA 2008, the time of recording of the acquisition of goods is the moment when economic ownership changes hands. It defines the "*economic owner of goods and services, natural resources … [as] the institutional unit entitled to claim the benefits associated with the use of the entity in question in the course of an economic activity by virtue of accepting the associated risks*". The legal owner is the institutional unit/person that is recognised by law as owning the asset in question; the economic owner could be the institutional unit/customer that exercises control over the asset and ultimately benefits from its use. SNA clarifies that "the criterion used is to record a delivery or transaction when the receiving unit assumes the responsibility, in terms of economic risks and rewards, of the items delivered". In this context, the assumption of risks means that the unit is responsible for repairs and maintenance of the entity, as well as bearing the risk of ultimate loss of the entity.

128. Both economic statistics and international accounting standards broadly follow the same principles in recognising economic ownership. International Accounting Standard 8 states that for information to be reliable it must be reported in accordance with economic substance rather than strictly according to its legal form. If material transactions are not accounted for in accordance with their substance, it is doubtful whether the accounts present a true and fair view. IAS 1 requires an item to depart from the accounting standard if it does not represent the transactions faithfully. In IAS 17: *Leases*, a financial lease is defined as a lease that transfers substantially all risks and rewards incidental to ownership of an asset, which recognises that the lessee is the economic owner of the asset rather than the legal owner.

129. The AAOIFI standards for Islamic financial institutions also generally take into consideration, in addition to the legal form of a contract, the concept of the substance of a transaction and the economic reality where the legal form may not represent the substance.

130. While there is no substantial difference between the accounting standards of the IASB and the requirements of the SNA for the recording and recognition of economic ownership over legal ownership, some minor differences may exist between statistical standards and Islamic finance accounts. For the purpose of statistical compilation, ownership poses a difficulty where the actual structure of legal ownership differs from the chain of economic ownership.

131. The treatment of ownership in recording Islamic financial transactions and juristic rules pertaining to rights of ownership in property and usufruct vary based on the categories of transactions or financing contract types. Sales-type financing such as *murābahah* or *salam* confers legal ownership, and the receivables arising from completed sales transactions are reported as assets on the balance sheet of the IIFS. Lease-type transactions such as *ijārah* or *ijārah muntahia bittamlīk* involve the provision of services of the assets to customers while IIFS retain the right of ownership and disposal of the lease assets. Although economic benefits ultimately accrue to the lessee, the lease assets are reported in the IIFS's books. Equity right of claim contracts such as *muḍārabah* or *mushārakah* refer to the right of ownership of the assets, and are reported as equity financing or investment since IIFS have the right of claim on capital recovery as well as return arising from the performance of the assets.

132. In Sharī'ah-compliant transactions, a clear distinction is made between the effective transfer of risks and rewards upon sale of an asset (such as property) and incidental transfer of beneficial use of an asset (e.g. usufruct). Incidental transfer of risks and rewards that may arise in the case of lease financing, where economic benefits accrue to the lessee, is significant as a criterion for reporting lease-financing assets in the lessee's books. However, effective transfer of risks and rewards does not arise in *ijārah*-type financing, as the ownership and reporting of the assets reside with the lessor even in the case of a lease with an agreed transfer of assets to the lessee, which is known as *ijārah muntahia bittamlīk*. In fact, an IIFS shall report the lease asset, and record the lease payment as revenue, until the asset is transferred by sale or other form of disposal, unlike in conventional finance where the financial institution shall report it as a lessor's receivable.

133. With respect to the timing of recognition, the acquisition date of the asset or services of the asset refers to the date of change of ownership as specified by the contractual conditions. In the case of the sale of the asset, the seller derecognises the non-financial asset and will report it either as a financial claim for sale on credit or as cash received for complete settlement. At the same time, the buyer recognises the asset on purchase where effective transfer of risks and rewards has occurred. In the case of services rendered or dividend declared, the income or dividend accrues and the resulting financial claim is extinguished upon payment.

3.3.3 Income Recognition by Type of Transactions

134. The basic principle for revenue recognition is that revenues are recognised at the time when they are realised or earned. Realisation of revenues presupposes the fulfilment of three main conditions as stipulated in AAOIFI FAS 1: (a) the IIFS should have earned the right to receive the revenue; (b) an obligation must fall on another party to remit a fixed or a determinable amount to the IIFS; and (c) the amount of revenue is known and collectible with a reasonable degree of certainty, if not already collected.

135. The recognition of income from an Islamic finance transaction varies depending on the type of transaction. In transactions for sales-based financing such as *murābahah* and *salam*, a price ceiling or profit mark-up is agreed at the time of contracting and any profit rate derived from the mark-up profit does not accrue in excess of the total profit that was agreed upon.

136. The guidance for recognition of profits outlined in AAOIFI FAS 2 requires that profits from *murābahah* are recognised at the time of contracting if the sale is for cash or on credit not exceeding the current financial period. For a credit sale exceeding one financial period with one or several instalments, as per the accrual basis, the profits are recognised through proportionate allocation of profits over the period of the contract, irrespective of whether or not cash is received.

137. For a fixed-rate instrument such as *murābahah* (or *bay maujjal* as used in some jurisdictions), the effective yield is the financing rate equal to the discounted value of future payments to the issue price. On the other hand, for variable-rate instruments such as *ijārah* or *ijārah muntahia biltamleek*, the yield will vary over time in line with the terms of the contract. When such an

instrument is traded, the effective yield at the time of trade of the instrument is recognised.

138. In the case of transactions based on equity-type financial instruments, such as *muḍārabah* and *mushārakah*, an expected yield with a contracted profit-sharing ratio is agreed upon issuance. The modes of capital and realised returns to be distributed to investors are based on the contractual conditions of the instruments agreed at the time of issuance. However, returns arising from market valuation of financial claims, where applicable, are determined as of the valuation date. Income realised or realisable – that is, declared or being distributed – from the *muḍārabah or mushārakah* capital shall be recorded on an accrual basis. With respect to the recognition of an IIFS's share in *muḍārabah* or *mushārakah* profits or losses, if a *muḍārabah or mushārakah* financing transaction continues for more than one financial period, profits for a period resulting from partial or final settlement shall be recognised to the extent that the profits are being distributed, while the losses for a period shall be recognised to the extent that such losses are being deducted from the *muḍārabah* or *mushārakah* capital.

139. For transactions based on lease financing, such as *ijārah*, the effective yield or revenue results from rendering the services of the assets. In line with the criteria for revenue recognition under the accrual basis, the revenue is to be recognised in the IIFS's accounts when the *ijārah* instalment becomes due.

140. The revenue for *istisnā* contracts and the associated profit margin are to be recognised in the IIFS's financial statements according to either the percentage of completion method or the completed contract method. The completed contract method is applied when both the percentage of completion and the expected cost to complete the *istisnā* contract cannot be estimated with reasonable accuracy at the end of the reporting period.

141. The Compilation Guide recommends financing costs, if any, to accrue continuously on financial instruments, matching the cost of funds with the provision of funds and increasing the principal amount outstanding until the financing cost is paid. The preference is that financing cost should accrue at the effective yield agreed at the time of issuance of the financial instrument. The effective yield is based on the agreed price or profit rate at the time of the contract.

3.3.4 Distributions Based on Profit-Sharing; Owners' and Investors' Shares

142. Profit-sharing investment accounts are treated as equity-equivalent accounts whereby PSIA holders or investment account holders share in the profits of funded assets (which are commingled with shareholders' equity in the case of unrestricted PSIA) and assume the risk of possible loss of their contribution (as they bear all investment losses).

143. An explicit and contracted profit-sharing ratio is agreed upon between IAH and IIFS for a predetermined period of time. Without a conventional contracted fixed-deposit interest rate as the funding cost for IIFS, accruing returns attributable to IAH during the period of investment involves monthly estimations and appropriate adjustments of the profit equalisation reserve, set aside from profits before distribution to IAH – that is, before deducting the share of IIFS in order to smooth the returns paid to IAH based on an agreed profit-sharing ratio. Practices in some countries at present do not provide for PER.

144. The monthly return of PSIA is declared by the management as accrued to IAH on a periodic basis for investment horizons exceeding one month. Such accrual could be adjusted at the time of the actual (realised) return through a cash pay-out to enable smoothing and adjustments of returns among classes of IAH, as well as investments of varying maturities.

145. To mitigate exposure to potential loss on investment, which will be borne solely by IAH, an investment return reserve is set aside from net income attributable to IAH based on the pre-agreed profit-sharing ratio. Practices in some countries at present do not provide for IRR. In such a situation, equity holders of an IIFS will have to tap their own income – for example, by

forgoing part of their share of profits – in order to smooth or adjust the returns to IAH. This represents the "displaced commercial risk" borne by the IIFS.

146. Financing cost (income) that accrues during the reporting period shall be recorded as an expense (income) in that period. Financing income attributable to IAH is a form of dividend pay-out to be accrued during the reporting period and recorded as distribution. For position data, there are three possible measurements for distributed profit (losses). They are: (a) for profit (losses) accrued and paid in the recording period, the position remains unchanged; (b) for profit (losses) accrued but payable only at a later date, the position increases based on the reporting period; and (c) for profit (losses) accrued but not paid when due, the position increases by the amount due. In the case of (c), appropriate classifications of provisions for doubtful financing collection are determined prior to arriving at distributable income to IAH. In the case of income related to non-performing financing, provisions for accrued income on doubtful financing are identified and excluded from the recognised income.

147. Under statistical accrual standards, amounts available for distribution will be treated as distributed, subject to reinvestment in underlying instruments as separate transactions, and covering the withdrawals from PER or IRR.

3.3.5 Arrears

148. Arrears are amounts that are past due for payment on financing facilities or other assets. Arrears can arise from late payment of financing amounts or other charges, or through failure to meet the terms of other types of transactions. According to the accrual basis, arrears remain outstanding until they are repaid, rescheduled or forgiven by the creditor.

149. The treatment for arrears, as set out in FAS 30 of AAOIFI and SNA 2008, is that when arrears occur no transactions should be imputed, but the arrears continue to be shown in the same instrument until the liability is extinguished. If the contract provided for a change in the characteristics of a financial instrument when it goes into arrears, this change is to be recorded as a reclassification in the other changes in the financial assets and liabilities account. The reclassification applies to situations where the original contract remains, but the terms within it change (e.g. changes in the rate of return or repayment periods). If the contract is renegotiated or the nature of the instrument changes from one instrument category to another, the consequences are to be recorded as new transactions.

150. The treatment of arrears presumed in the compilation of PSIFIs statistics is that they continue to be recorded in the underlying instrument until the liability is extinguished, excluding any provisions for accrual of profit payments on non-performing assets.

151. If debt payments are guaranteed by a third party (such as through a *kafālah*[12] contract) and the debtor defaults once such a guarantee is exercised, the arrears are transferred to the guarantor as a form of short-term debt liability obligation, while the debt liability of the original debtor is extinguished.

3.3.6 Contingencies

152. "Contingencies" refers to conditional requirements arising from contractual financial arrangements between institutional units, either to make payments or to provide items of economic value, where the claim becomes effective only in the event that a stipulated condition or conditions arise.

153. For the purpose of PSIFIs compilation, contingent items are not recognised as financial assets (liabilities) since they are not claims or obligations but represent potential exposures to risks.

[12] *Kafālah* is a contract of guarantee or suretyship adopted in a letter of credit, *takāful*, or any other form of guarantee relating to Sharī'ah-approved products and services.

Consistent with the treatment of contingencies in SNA 2008, transactions are to be recorded in the financial account only when an actual financial asset is created or changes ownership.

154. The types of contingent arrangement for which data could be collected on the basis of maximum potential exposures include financing-related payment guarantees, letters of credit, lines of credit and credit commitments (including notes issuance facilities, revolving underwriting facilities, and other options or notes facilities), and potential costs incurred to be recognised and determined (if not measurable and treated as an expense in the income statement).

155. However, the Guide recognises that flexibility is required in the application of this recommendation, as national practices may vary when determining which instruments are considered contingent and which are considered assets to be recorded in the balance sheet.

CHAPTER 4: STATISTICAL STANDARDS FOR PSIFIs

4.1 Concepts and Principles for Aggregation and Consolidation

156. This chapter summarises statistical rules for the compilation of PSIFIs. The chapter broadly covers major methodology topics with discussion of particular points related to Islamic finance. More detailed information on the SNA and its accounting rules that apply to financial activity can be found in SNA 2008 and the IMF's *Monetary and Financial Statistics Manual*.

4.1.1 Economic Territory and Centre of Economic Interest

4.1.1.1 ***Economic territory***

157. An economic territory is the geographic area or jurisdiction for which statistics are compiled. The most commonly used concept of economic territory is the geographic territory under effective economic control of a single government, within which persons, goods, services and capital move freely. The economic territory includes the land area, airspace, territorial waters, islands that belong to a marine territory and territorial enclaves in the rest of the world. Economic territory comprises physical location as well as legal jurisdiction, so that financial institutions created under the law of that jurisdiction are considered part of that economy. Economic territory also includes special zones, such as international finance centres located within the geographic territory, as they are under the control of the government and so are part of the economy, even though different regulatory and tax regimes may apply. The territory excludes international organisations and enclaves of other governments that are physically located in the territory.

4.1.1.2 ***Centre of economic interest and residency***

158. An institutional unit has a centre of economic interest within a country when there exists some location within the economic territory of the country in which it engages in significant economic activities and transactions, either indefinitely or over a long period of time – typically for one year or longer. In the case of IIFS, the IIFS has a centre of economic interest in the country if it engages in Islamic banking activity within the economic territory of that country as defined in the preceding section. An IIFS, such as a bank, establishes a centre of economic interest in a country immediately upon registering in the country with an intention to carry out continuing operations within that country.

159. There are two differing perspectives on treatment of the residency of Islamic banks. For structural indicators that track the scope of Islamic banking activity within a country, the SNA-based residency rules (below) are appropriate. For prudential indicators, data are often drawn from supervisory reports that consolidate activity across countries based on the residency of the parent bank in a banking group. In many PSIFIs-compiling countries, residency standards could vary by indicator.

SNA-based residency

160. The SNA defines the economic boundaries of countries to determine whether an economic activity is resident or non-resident. The SNA is a "national" statistical framework covering transactions and positions of "residents" of a country; transactions or positions with other countries are "non-resident" as part of the "Rest of the World" (ROW) and are external to domestic economic activity; financial transactions between a country and other countries are recorded in balance of payments statistics.

161. Islamic banks are resident in the country in which they have established their centre of economic interest. At this time, most Islamic banks operate only in a single country and are

residents of that country, and thus, their transactions with parties in other countries (including with affiliated financial institutions within the same banking group – e.g. transactions of windows with their conventional parent) are considered transactions with non-residents.

162. The SNA-based approach is a "domestic consolidation" (DC) approach (Blocks 1a, 2a and 3 in Figure 4.1 in section 4.2, "Aggregation and Consolidation of Data") that covers the domestic activities of all Islamic banks, branches, and windows, however legally organised. Transactions and financial positions of the domestic Islamic banks with their foreign parents, foreign subsidiaries or foreign branches are treated as if they are with non-residents.

163. For financial operations, the test of engaging in activity within a country for a year or more should be applied based on the facts of each case. For example, a short-term banking operation carried out by residents of a country is resident, and registration of new firms intending to carry out permanent operations should be treated as resident from the point of registration. In contrast, a bank owned by non-residents that carries out short-term operations (e.g. payroll banking services for employees of a six-month construction project) is not resident and the services it provides are considered as imported services from another economy; however, such activity should be reclassified as resident if it lasts longer than one year.

164. The residency rules apply to Islamic branches and windows of foreign banks. Those that operate permanently or intend to operate permanently in a country are resident and should provide data to national authorities for compilation of PSIFIs, even if they are consolidated into the financial accounting reports of a non-resident parent bank.

165. Residency of special purpose vehicles (also called structured entities) and ancillary financial organisations (see the next section on institutional units) might also need to be considered. The 2008 revision of the SNA has new coverage of these units, and the IFRS argues that SPVs can be included in their parent bank's consolidation, both of which imply that these entities involved in Islamic financial activity are genuine financial entities that should be classified as resident within the SNA domestic consolidation, or non-resident if located in another economy, as appropriate.

Residency in supervisory reporting

166. Compilation of bank prudential indicators is usually based on published financial accounts and reports filed with supervisors that often use a cross-country (cross-border) consolidation basis. Per the Basel rules, the parent bank of a multicountry banking group should prepare a single consolidated financial report covering itself and all its domestic and foreign subsidiaries and branches *and* any other operations it might control.

167. Per Basel II and subsequently, "subconsolidated" financial reports also can be required for each lower tier of subsidiaries, also on a cross-border basis. Subconsolidations should be considered whenever parts of an enterprise engage in materially different economic activities or fall under different regulatory frameworks, which argues for a separate subconsolidation for Islamic windows, subsidiaries and branches.

168. For PSIFI purposes, a unique collection of resident Islamic banks and windows (including some with consolidated foreign operations) can be used. This can be defined as an Islamic bank, cross-border approach.[13]

169. Islamic banks headquartered or incorporated in a country (including those that use a cross-border consolidation) are treated as resident. This equals the domestically controlled, cross-border (DCCB) consolidation basis used for FSIs (Figure 4.1). These data correspond to Basel requirements and are deemed to capture good information on the strengths and risks of a banking group, including risks arising in its foreign operations.

170. For PSIFI purposes, data should also include subsidiaries of foreign banks using the foreign-controlled cross-border (FCCB) consolidation basis shown in Figure A, and branches of foreign

[13] The IMF's Financial Soundness Indicators do not have an equivalent consolidation basis.

banks (Block 3 in Figure A). The branch data might not be routinely collected, but supervisors are increasingly imposing local capital and liquidity requirements on branches of foreign banks and collecting more data to allow them to monitor their activities within the country.

4.1.2 Institutional Units, Sectors and Economic Activities

171. This section reviews: (a) the concept of institutional unit (IU) as the basic level for collection of statistical data in the SNA system; and (b) the classification of institutional units into macroeconomic sectors and economic activities. This information is used to define the entities that provide data for PSIFIs, and to identify the sectors or industries supplying funds to or receiving financing from Islamic banks.

Institutional units

172. Institutional units are the basic building blocks of the SNA system. They are entities capable in their own right of owning assets, incurring liabilities, making decisions on their own behalf, engaging in economic activities with other parties, and having or constructing financial accounts. There are many diverse types of institutional units, ranging from households, corporations, financial institutions, informal non-financial businesses, governments at all levels, non-profit institutions, etc.

173. IUs can engage in a range of activities. Each IU has a primary activity that is its most important activity even if does not comprise most of its activity. It can also have one or more secondary activities. For example, an Islamic bank engaged in retail banking as its primary activity could have secondary activities to sell insurance and offer IT and bookkeeping services. Its financial accounts encompass all these activities and no effort is made to divide the units based on its various lines of business. Each IU will be classified by industry based on the unit's primary activity – in this case, banking.

174. Institutional units used for compilation of PSIFIs include:

i. *Islamic banks domiciled in a country, whether stand-alone or part of an Islamic banking group.* All operations within a country (subsidiaries, branches, microfinance operations, and SPVs under the control of a domestic Islamic bank, etc.) are treated as a single IU that should provide a consolidated financial report.

ii. *Islamic windows of a conventional bank.* The window is treated as a virtual branch that should report its activity independently of its parent bank.

iii. *SPVs (structured entities) deemed under the control of a foreign Islamic bank and included within the accounting consolidation of its parent.*

iv. *Microfinance units engaged in Islamic banking activities within the country.* The PSIFI program does not currently cover microfinance, but in the future it might be included as a type of Islamic banking activity. Because of their small size and limited record-keeping, it might not be possible to treat each microfinance operation as a separate IU that should provide financial accounts to supervisors. In this case, consideration can be given to using surveys or statistical estimates to impute a "virtual" microfinance IU covering all operations in a country.

v. *The banking and near-banking sector which has been defined for the purpose of compilation of PSIFIs is in line with the sectoral classification of the SNA.* The appendix to this Compilation Guide includes an outline of sector classifications.

4.1.3 Stocks, Flows and Positions

175. This Guide follows the SNA 2008 in identifying the stocks of financial assets and liabilities and flow changes in value, as shown in Table 4.1. The accounting system tracks the opening and closing balance sheet for a time period and three types of flows – transactions, revaluations, and other changes in the volume of assets (OCVA) that account for all changes in the balance sheet during that period.

Table 4.1: Stocks and Flows of Financial Assets and Liabilities

Item	Description	Example
Opening stock	Assets and liabilities at the beginning of the accounting period	100
Transactions	Financial flows resulting from mutual agreement between units that create, liquidate, or change ownership of financial assets or liabilities.	+20
Revaluations	Changes in prices of financial assets and liabilities	+8
Other changes in volume of assets (OCVA)	Other changes in value of assets and liabilities, such as catastrophic losses, write-off of claims, changes in statistical methods, reclassification of assets, etc.	-5
Closing stock	Assets and liabilities at the end of the accounting period	123

a. *Opening stock:* The opening balance sheet showing the value of assets and liabilities at the beginning of an accounting period.

b. *Transactions:* Financial flows resulting from mutual agreement between units due to creation, liquidation, or change in ownership of financial assets and liabilities. Changes of ownership are recorded as the result of sale, transfer or other exchange of all rights, obligations and risks associated with a financial asset or liability.

c. *Revaluations:* Changes in the price of financial assets and liabilities, and changes in the domestic currency value of assets and liabilities denominated in foreign currencies.

d. *Other changes in the volume of assets:* All other changes in the value of assets and liabilities other than those due to transactions and revaluations. OCVA events include catastrophic losses, write-off of claims, changes in statistical methods, reclassification of assets, etc. Box A below discusses the OCVA events that might affect PSIFIs significantly.

e. *Closing stock:* The closing balance sheet showing the value of assets and liabilities at the end of a reporting period.

176. The three types of flows account in full for the change between opening and closing stocks. In general, changes between opening and closing stocks should not be used as a proxy for transactions, because revaluations or OCVA changes might be large.

Box A: OCVA Events that Might Affect PSIFIs

PSIFIs are vulnerable to a number of potential OCVA events stemming from changes in underlying supervisory, accounting, and statistical standards. Changes large enough to significantly affect the time-series of PSIFIs should be noted in metadata.

Transition to Basel III: Basel III introduces major changes into the regulatory scheme for banks, including higher capital requirements and new requirements for leverage, liquidity, excess credit growth and systemic importance. Countries transitioning from Basel I or Basel II will have changes in series such as regulatory capital and will introduce new indicators. Also, some Basel III changes are being introduced incrementally which can affect the pattern in which OCVA changes will occur.

Changes in number of Islamic banks and windows: Changes in the number of Islamic banks and windows as new firms are created, conventional banks convert into Islamic banks, firms merge, etc., can change the time-series for nearly all PSIFIs. Large changes might also result from changes in the number of branches.

Introduction of or changes in International Accounting Standards or AAOIFI Standards: Changes in underlying financial accounting standards can affect data used to compile PSIFIs. An important change could be switching from valuation based on reason for holding a financial asset to fair valuation.

Introduction of new IFSB standards; change in alpha (α) used in the IFSB Supervisory Discretion capital adequacy formula.

Changes in regulatory standards for Islamic banks: National legal frameworks covering Islamic banks and windows can change, especially because of the newness of Islamic banking and the need to adjust conventional bank rules to better fit Islamic finance.

Changes in data collection and compilation methods: Data can be affected by new or more comprehensive data collection procedures and surveys or by new methods to compile the indicators.

Changes to SNA and monetary statistics: SNA 2008 introduced many changes affecting the financial sectors, expanding the scope of the sector and redefining sectors. Countries are introducing the changes on different schedules, and monetary statistics data collection forms are still being introduced.

IMF Financial Soundness Indicators Compilation Guide 2019: The Guide could introduce a number of parallel changes in PSIFIs.

4.1.4 Valuation

177. The general principle for valuation of assets and liabilities follows IFRS 9: *Financial Instruments* issued in 2014 and applicable in 2018. The economic approach used for valuation in IFRS 9 largely parallels the SNA standards. If countries apply different valuation approaches in supervisory reports used for compiling PSIFIs, major differences should be described in metadata.

178. Initial measurement of the value of financial assets and liabilities should be based on their market transactions price at the time of the transaction, which is when the unrelated parties to the contract agree to an orderly transfer of all rights, obligations and risks inherent in the instrument. If there is no market exchange value for a financial instrument, a range of approaches exist, as described in IFRS 13 (*Fair Value Measurement*, to estimate the value of the instrument: comparison to similar market-traded instruments, discounted value of future receipts or payments, and options models) and in AAOIFI's FAS 30 (impairment, credit losses and onerous commitments). Fair value is to be based on market and economic factors, applying assumptions that typical market participants would have regarding the rewards and risks of the financial instrument. Valuation is not to be based on the intention for holding an instrument, such as for trading or holding to maturity. The switch from valuation based on intention to a market-based fair value approach could be substantial and create a break in series, and should be noted in metadata.

179. *Subsequent measurement of financial assets and liabilities* on the balance sheet is on a fair value basis for most instruments; however, for loans and receivables it is based on amortised cost less impairment. Fair value instruments should be valued each accounting period, with gains or losses taken to income. Amortised cost instruments should be valued based on the

initial cost, less any repayments of principal, plus any accrued undistributed income, less any impairment losses. IFRS 9 applies a new model for impairments based on the expected loss over the life of the instrument. Impairment must be measured every regular accounting period and subtracted from the asset value of an instrument, rather than by taking provisions for impairment as a liability or as part of capital.

180. Per IFRS 9, *impairment write-downs* can be done either by a direct reduction in the value of an asset or by creating a specific financing/loan loss provision recorded on the asset side of the balance sheet. The treatment chosen will affect the values of the asset quality PSIFIs (CP04 through CP06) for gross and net non-performing financing and provisions, and thus affect the calculated PSIFIs.

181. The valuation method above contrasts with the IMF Monetary Statistics method, which records loans and receivables on a gross basis as the amount of the creditors' legal claim, and records financing/loan loss provisions on the liability side of the accounts, which will affect the gross value of assets (but the data should be available to calculate the PSIFIs). Metadata should note if the IMF Monetary Statistics method is used.

182. The value of *foreign-currency denominated instruments* should be translated into a domestic currency equivalent using a market exchange rate at the time of the transaction or balance sheet date. The mid-point between buying and selling rates should be used to avoid including service charges and to have symmetrical valuations on both sides of a transaction.

4.1.5 Accrual Accounting

183. The general standard for valuation of financial instruments is accrual accounting, which records changes in value due to earnings, market value changes, or exchange rate changes on a current basis during the accounting period in which they occur. Accrual accounting moves signals about earnings and prices of assets into the period in which they arise, enhancing analysis of the causes of price movements and permitting the public and policy officials to respond on a timely basis.

184. Another reason for accrual accounting is that the SNA treats accrued earnings as transaction payments to depositors, securities holders, etc. which are recorded in the macroeconomic framework as income of households or other sectors during the accounting period that can be immediately reinvested in the financial sector through any instrument. This permits tracking of income and production transactions through all sectors of the economy. As discussed in Box B below, treatment of accrued income as a transaction with reinvestment is relevant for PSIFIs on earnings, because smoothing of income payments through the use of PER and IRR can shift timing of distributions to account holders.

185. *Interest accruals* on conventional loans, deposits and securities are not covered here, as Islamic financial instruments do not generate interest returns. Interest accruals are covered in depth in the IMF's *Monetary and Financial Statistics Manual* published in 2000.

186. For Islamic financial instruments, income is not created in the form of interest, but through participation in Sharī'ah-compliant activities in which the investment account holder has an investment arrangement. Within any specific time period, the IAH is construed to earn income, but if not distributed it is treated as if paid, then reinvested.

Box B: Accruals and Smoothing of Distributions by Islamic Banks

The SNA treats accrued earnings as transaction payments to depositors, securities holders, etc. that are recorded in the macroeconomic framework as income of households or other sectors during the accounting period and then can be immediately reinvested in the financial sector through any instrument. The income is thus linked to the timing of the productive activities that generated the income. This permits tracking of income and production activities through all sectors of the economy.

The accrual approach is symmetrical: accrued but undistributed income creates a claim of the account holder on the bank matched by an increased liability of the bank to the account holder.

For an Islamic bank, income is not created as a result of interest flows, but as the result of participating in various Sharī'ah-compliant activities for which the IAH has a profit-or-loss sharing arrangement. Within any specific time period, the IAH can be construed to earn income, but if not distributed it is treated as paid, then reinvested. (During any accounting period, some IAH are likely to withdraw their income earnings, but others will leave their earnings in the account, resulting in an income accrual.)

However, part of the income accrued to IAH can be held by the bank in PER and IRR in order to smooth the flow of distributions in the future. The reserves themselves are considered owned by the IAH, but actual payment is shifted to some future period. Per the SNA accrual standard, the income generated for IAH in a specific time period will equal: (a) income earned and distributed during the period, (b) income earned but not distributed, and (c) income earned but held aside in PER and IRR during the period.

(Accrued income due for payment, but in arrears [payment is overdue], does not change the above formula. However, in many countries arrears over 60 or 90 days are considered in default and must be excluded from the IAH earnings, which would be recorded as an OCVA.)

Metadata should note whether data reported in PSIFI *AD01 – Income distributed to IAH out of total income from assets funded by profit-sharing investment accounts (PSIAs)* – is on an accrual basis, or is on a cash basis showing actual cash disbursements including withdrawals from earlier PER and IRR reserves less current contributions to PER and IRR. The accrual basis is preferred for PSIFIs and national accounts purposes; the cash basis can distort the national account data and provide misleading signals about the soundness of the Islamic banks.

4.1.6 Maturity and Duration

187. Maturity and duration are related concepts that provide important information about the economic behaviour of financial instruments, including their liquidity and monetary characteristics, and price volatility.

188. *Maturity* is the time remaining until the full repayment of a financial instrument. Original maturity is the length of time from issuance of a financial instrument to its full repayment. Remaining maturity is the time left on a financial instrument until it is fully repaid.

189. *Short-term instruments* have an original maturity of one year or less, although in some countries maturity of less than two years is used. Cash and transferable deposits are defined as having zero maturity because they are immediately available for third-party transactions. A zero or short-term maturity is often used as part of the definition of broad money because the

funds can be used for transactions immediately or within a relatively short period. *Long-term instruments* have an original maturity of over one year.

190. *Duration* is the discounted weighted-average maturity of future repayments. The basic formula for duration is the sum of each future payment divided by a discount factor equal to 1 / (1 + R) ^{t} where R is the current interest rate yield in the market and *t* is future time t. A related concept is "yield to maturity", which is the discount rate at which the sum of future cash flows of principal and income equals the current price of the instrument. Instruments with cash flows concentrated in the near term have lower duration; those with flows near the end of the life of an instrument have higher duration; zero coupon instruments that make a single payment at maturity have duration equal to maturity. Instruments with longer duration have greater inverse price sensitivity to changes in market interest rates and hence greater market risk. The Basel II market risk capital requirements are derived in part from duration calculations.

191. Permanent equity instruments have no maturity. Investment instruments with highly variable returns do not lend themselves to duration-type calculations.

192. Duration calculations are based on interest-bearing financial instruments, and thus do not directly translate to Islamic financial instruments. However, rate of return information can be proxied for some Islamic instruments that can permit duration calculations.

4.1.7 Periodicity

193. "Periodicity" refers to the length of each accounting period for reporting data. For PSIFIs, annual and quarterly periodicity is used. Several countries use semi-annual data, which is often used for supervisory purposes.

194. For stocks, data should be reported as of the end of each calendar quarter and for the end of each calendar or fiscal year as appropriate. The value of stocks at the end of the fourth quarter of a year should equal the value of stocks at the end of the year. The data are designated for example as 2020Q1, 2020Q2, 2020Q3, 2030Q4 and 2020Yearend.

195. For flows, data should report transactions, revaluations or OCVA that occur during the calendar quarter or year. The data are designated as 2020Q1, 2020Q2, 2020Q3, 2020Q4 and 2020Annual. For semi-annual data, the designations are 2020H1, 2020H2 and 2020Year.

196. The preferred method for quarterly data is to report only flows that occurred during the period under review. For example, income data for 2020Q2 covers only income earned during the three months of the second quarter. However, a number of countries report quarterly income and expense data on an accumulating basis during the year as commonly done in financial accounting reports. For example, reported data for quarter 3 will cover the sum of flows during quarters 1, 2 and 3.

197. For the PSIFI indicators, quarterly flows data are preferred because the indicators are intended to provide current information on financial soundness conditions.

198. In contrast, for the detailed financial statements, which correspond closely to standard income statements and balance sheets that are often compiled on a cumulative basis, the data can be compiled either on a cumulative basis or on a current quarterly data basis.

199. *Annualisation of quarterly flows data:* In order to permit ready comparison of quarterly and annual flows data, it is recommended for statistical purposes that quarterly data be reported at an annual rate.

IMF method

200. IMF's 2019 FSI Compilation Guide does not prescribe any methodology for the annualisation of net income. The Guide explains that compilers should report the income annualisation method in the metadata form. The value of denominator can be calculated by averaging the stock of total assets during the reporting period. At the minimum, the latest FSI Guide clarifies that the denominator can be calculated by using the average of the beginning and end-period

positions, but compilers are encouraged to use the most frequent observations available for averaging.

PSIFI method

201. Flows data should cover data only for the reference quarter (e.g. income earned during the third quarter) multiplied by four to put it on an annual rate. This links financial activity in any specific quarter with macroeconomic and policy conditions at the same time, and signals for the quarter are not mixed with signals for other quarters. An implication of this method is that fourth-quarter flows data does not equal the annual flows data.

202. IIFSs are obligated to present periodic reports reflecting their financial position as of a given date, and the results of their operations during a specific period, in order to disclose the rights and obligations of the IIFS and those of interested parties. This is especially important because of the profit-sharing arrangements between the IIFS and its funders (investors/depositors), which create special reporting requirements on the IIFS to accurately convey information on its earnings in order to divide those earnings between the IIFS and its funders.

203. This Guide recommends that flows and positions be recorded using accrual accounting. On this basis, flows are recognised when economic value is created, transformed, exchanged, transferred or extinguished in a legitimate manner in accordance with Sharī`ah-approved requirements. The accrual concept allows the IIFS to prepare financial statements that provide interested parties with information or directions by which they can evaluate the performance of the IIFS during a relevant period. This assumption also indicates the need to relate the activities of the accounting unit through the entirety of its life to the appropriate reporting periods as necessary.

204. The accrual basis provides timely matching of flows, as well as timely assessment of the economic consequences of such flows on the financial health and soundness of the reporting entities regardless of whether cash has been exchanged. The accrual concept of accounting requires that the financial accounting effects of transactions and other events are recognised and recorded in the accounting records as and when they occur and they are reported in financial statements of the periods to which they relate.

205. In general, the accrual basis is the preferred basis of recognition of revenues and gains, as well as expenses and losses. Metadata should note cases where IIFS adopt the cash basis.

206. Although the accrual basis is adopted as a general principle, its application may vary according to contract types. For example, in the case of *murābahah* financing, a mark-up profit is determined at the point of contracting. As such, unlike interest on conventional loans and advances, accrual of profit in a *murābahah* financing does not continue indefinitely but is limited to the actual amount of pre-agreed profit.

4.2 Aggregation and Consolidation of Data

207. This section discusses aggregated data and *two* levels of consolidation of banking data. *Aggregated data* is the simple summation of data on individual banks or banking groups. *Consolidated group data* combines the accounts of all parts of a banking enterprise into a single report that eliminates all internal transactions and positions between parts of the enterprise. For example, IFRS financial reports use consolidated group data. *Sector-level consolidated data* reports eliminate transactions and positions between different banks in data aggregated to the sector level.

Aggregated data

208. FSIs, PSIFIs and DFSs are compiled using data aggregated up to the sectoral level (or for some analytical purposes up to a defined subsector or peer group level). Data for individual

Islamic banks are added together to obtain data for the Islamic banking subsector; that is, if a country has three Islamic banks and two Islamic windows, data for all five are added together to obtain the Islamic banking subsector data used for PSIFIs. More broadly, such as in IMF monetary statistics, mixed conventional/Islamic bank data are added together to construct the full country banking subsector. For example, if a country has six conventional banks and five Islamic banks, data for all 11 banks are added together to obtain the national banking subsector. (However, care must be taken to avoid double counting of activity of Islamic windows if the conventional bank reports already include their Islamic windows in their consolidated financial report.)

209. Simple aggregation of banking group consolidated reports preserves the full detail of the individual bank reports. For example, interbank lending reported by each bank is added together to obtain a measure of total interbank lending within the banking sector. This preserves information on the exposure of banks with each other, which is considered important for financial stability analysis.

210. In the income statement for *conventional* banks, interbank transactions consist of interest receipts and payments between banks (less any provisions for impairment of interest accruals), fees and commissions receipts and payments, and dividends receivable and payable on banks' equity shares in each other. (All these transactions are recorded gross, not as a net of receipts and payments.)

211. In the income statement for Islamic banks, similar types of flows occur with the important exception that income receipts and payments on Islamic financial instruments between the banks replace interest receipts and payments between banks.

212. In the balance sheets for conventional banks or Islamic banks, interbank positions include interbank deposits as a separate enumerated category because of their importance and volatility, positions in other financial instruments, and holdings of shares or other equity. Asset positions should be on a fair value basis, or for amortised cost instruments net of any impairment deductions.

Consolidated sectoral data

213. Consolidated sectoral data remove transactions or positions between banks within the group. Depending on the analytical purpose, consolidated data can be preferred because potential double counting of intrasector positions is eliminated and the focus shifts to the position of a sector vis-à-vis other sectors. For example, cross holding of equity between banks can result in overstatement of total capital available to address shocks to the banking sector. Similarly, consolidated income data can give a better idea of how various policy actions affect income of the sector. Consolidated data also can be useful in stress testing exercises. Data for national income purposes are consolidated to exclude intrasectoral transactions and positions in order to highlight the activity of each sector vis-à-vis other sectors.

214. When FSIs were first developed, sector-level consolidated data were recommended in order to obtain unique and internationally comparable measures of sector income and capital in order to assess soundness. Also, the consolidated data could be more directly compared to the SNA-based national accounts data in order to analyse how banking sector conditions affect other sectors. Therefore, initially, the IMF's *FSI Compilation Guide* discussed at length how to eliminate the interbank transactions and positions described above. However, the adjustments were considered complex and few countries prepared the sector-level consolidated data. At a meeting with FSI compilers, countries voted to do away with sector-level consolidation adjustments and to use only aggregated data for FSIs.

215. *This Guide follows the precedent set by the FSI program and uses aggregated sectoral data for PSIFI purposes.*

216. However, compilers should be aware that sector-level consolidated data are preferable for some analytic work or to link to SNA-based data. Joint programs between bank supervisors

and national accounts statisticians to compile sector-level consolidated data might be considered.

Sector consolidation options

217. This section looks at types of consolidation options that can be used for PSIFIs in line with the FSI consolidation basis[14].

218. *Domestic location consolidation basis (DL):* DL covers the activity of all banks resident in the country. It is relevant because activity by any bank within a country can be affected by domestic economic conditions and policy. At this stage, many Islamic banks and windows operate within one country only and thus are *de facto* operating on a DL basis. The domestic location consolidation basis corresponds to the SNA consolidation and thus highlights links to domestic macroeconomic conditions.

219. *Cross-border, cross-sector, domestically controlled consolidation basis (CBCSDC):* This consolidation includes subsidiaries and non-bank financial affiliates (though it frequently excludes *takāful*, which falls under a different regulatory umbrella). This is the consolidation used under the Basel standards and could be used by many countries.

220. *Cross-border, Cross-sector, domestically incorporated consolidation basis (CBCSDI):* The CBCSDI consolidation focuses on foreign banks' subsidiaries in the country consolidated with their lower-level foreign subsidiaries and branches.

[14] IMF (2019). *Financial Soundness Indicators Compilation Guides.* Washington, D.C.: International Monetary Fund.

CHAPTER 5: DETAILED FINANCIAL STATEMENTS FOR IIFS

221. The assessment of the financial condition of the Islamic banking sector is based on indicators whose underlying data series can be derived from, among other sources, the financial statements of IIFS, including income statements and the balance sheet. To arrive at a standard definition of elements in the accounting frameworks of IIFS relevant to the reporting of PSIFIs, this chapter outlines the accounting frameworks from which financial statements are drawn from relevant international accounting standards[15] and prudential standards.[16] As relevant, comparisons are made between the financial statements for IIFS and those of conventional financial institutions. The chapter also presents detailed financial statements for the Islamic banking sector and defines the line-item series for Islamic banks and Islamic banking windows of conventional financial institutions. The guidance assists in the compilation of the underlying component series required to calculate the PSIFIs ratios, and compilation of the aggregate sectoral income statements and balance sheets.[17] The method provides a consistent framework that draws on the relevant international standards – bridging differences across AAOIFI and IFRS standards for IIFS – and provides a benchmark for national compilers where national standards differ, as well as providing a reference for compilation of metadata for greater comparability.

222. For the purpose of compilation and formulation of PSIFIs, the key components of the accounting and reporting framework are the sectoral financial statements and memorandum series.

223. In addition, a statement of restricted investments is provided in Table 5.4 in this chapter. The statement is not part of the current PSIFI project and data collection, but provides information on the broad scope of assets under management by Islamic financial institutions.

224. It is recognised that countries have different accounting systems and rely on national sources of data to compile the PSIFIs. In some cases, countries may not collect certain data series needed for the indicators. In those cases, compilers should use data that most closely approximates the principles outlined in this Guide. In determining whether jurisdictions need to collect new data or modify current reporting frameworks, RSAs must make a judgment as to the likely impact and importance of collecting additional data series for compiling and monitoring of PSIFIs data, set against the costs of collecting the data.

225. As the primary objective of the PSIFIs data is disclosure, the Guide encourages a focus on reporting clearly defined data. Countries are allowed flexibility to account for differences in practices and adoption of international standards. However, since such differences make comparison of data between countries difficult, the Guide encourages national compilers to rely on uniformly defined supervisory data, in addition to data from financial statements, in order to enhance the process of compiling and monitoring the PSIFIs. This Guide also emphasises the importance of disseminating metadata (descriptive information about the data) to enhance comparison of data between countries and to provide greater transparency, with special emphasis on highlighting areas where national practices significantly differ from international standards or general accepted standards or terms.

5.1 Detailed Financial Statements of Islamic Banks

226. The detailed financial statements of Islamic banks set out in this chapter present the aggregated financial accounts of the Islamic banking sector. The DFS encompass both separate Islamic banks and Islamic windows of conventional banks, but it is feasible to compile

[15] International accounting standards include relevant IFRS and AAOIFI standards.

[16] International prudential standards include Basel III and IFSB standards.

[17] The sectoral income statements and balance sheets for IIFSs have been constructed to be parallel to similar accounts compiled under the IMF's Financial Soundness Indicators program, but with appropriate customisation to reflect the unique features of Islamic finance.

separate sets of accounts for the two subsectors. As aggregations of data from individual reporting institutions, there is no consolidation of transactions and financial positions between IIFSs within the reporting universe.

227. The DFS are constructed from data compiled using the standards presented in this Guide.[18] Reporters' financial accounts will be compiled using supervisory standards, and thus use a cross-country consolidation for parent banks with their foreign subsidiaries and branches. In countries in which Islamic banks do not have foreign subsidiaries or branches, a domestic consolidation is effective in use.

228. Islamic financial accounting methods and principles differ from their conventional counterparts, due to aspects such as the prohibition on interest, unique financial instruments, differing investment focus, and profit and loss sharing, among other factors. These differences are reflected in the framework presented in the DFS, below.

229. As a financial intermediary, the basic mechanism of an IIFS is to accept deposits and/or funding on the liability side and to offer financing on the assets side, within acceptable Islamic modes. The liabilities of an IIFS generally consist of interest-free current accounts and savings accounts, as well as investment accounts based on the profit-sharing or profit-and-loss sharing principle. Exchange-based transactions such as reverse *murabahah* are also a mode of sourcing liabilities. (The Islamic instruments *muḍārabah* and *mushārakah* are alternatives for term deposits offered by conventional banks.) The assets side includes a broad range of financing instruments, such as *murābahah*, commodity *murābahah*, *ijārah*, *salam*, *istisnā*, *muḍārabah*, *mushārakah,* and others.

230. Profit-sharing investment accounts are a unique feature of Islamic finance. In unrestricted *muḍārabah* investment accounts, funds received by the IIFS from investors can be freely invested without prior restrictions, including mixing these funds with the bank's own investments. In restricted investment accounts, the bank acts only as a manager – that is, an agent or non-participating *muḍārib* – and is not authorised to mix the bank's own funds with those of investors without prior permission of the investors.

231. Apart from its unique characteristics, Islamic accounting practice shares with its conventional counterpart common processes of recognition, accrual standards, measurement, recording of transactions, and fair presentation of rights and obligations. Measurement is the quantification of financial effects of completed transactions and the impact of other events during the same period of time. The recording process offers a clear classification scheme of financial effects in order to show the results of the entity's operations and changes in its financial position, including cash flow. Periodic reports are then prepared and issued by the entities to disclose their financial records during a given period of time. Recognition of rights and obligations must apply to a given period of time, tracing all changes in completed transactions that may have taken place.

[18] The DFS parallel the sectoral financial accounts for entire country banking systems as reported in Annexes 2 through 5 of the IMF's reporting of sectoral statements of Financial Soundness Indicators. However, the FSI presentation encompasses both conventional and Islamic banks without separate identification of each component, and data are compiled per the standards in the FSI Guide. In Tables 5.1 through 5.3 that present the DFS, a column is added showing the equivalent line in the FSI Annexes, where relevant.

Table 5.1: DFS – Income and Expense Statement for IIFS[19]		Equivalent FSI Code
FS01	**Gross financing and investment income = FS01(i) + FS01(ii)**	**Annex L1a – L1b**
	(i) Income from financing	
	(i.i) Sales based	
	(i.ii) Lease based	
	(i.iii) Equity based	
	(i.iv) Others	
	(ii) Income from investments*	
	Of which: Income from *sukuk* and other Sharīʿah-compliant securities	
FS02	**Less [FS02(i) + FS02(ii) + FS02(iii)]**	**Annex L2**
	(i) Share of income attributable to on-balance sheet profit-sharing investment accounts	
	(ii) Share of income taken as profit equalisation reserve (PER)	
	(iii) Less provisions for accrued income on non-performing assets	**Annex L1b**
FS03	**Net financing and investment income = FS01 – FS02**	**Annex L3 = L1 – L2**
FS04	Bank's income as *mudarib* from off-balance sheet RPSIA	
FS05	Fees and commission income**	**Annex L4a**
FS06	Gains or losses on financial instruments	Annex L4b
FS07	Other income	Annex L4d
FS08	**Gross income = (FS03 + …. + FS07)**	**Annex L5**
FS09	Non-financing and investment expenses	**Annex L6**
FS10	Personnel expenses (including administrative and general expenditures)	**Annex L6a**
FS11	Other expenses (including fees payable)**	**Annex L6b**
	(i) Of which: Depreciation	
	(ii) Of which: *Hibah* expenses for remunerative accounts (excluding expenses for PSIA)	
FS12	**Provisions**	**Annex L7**
	(i) Provisions for non-performing financing	
	(ii) Provisions for non-performing investment	
	(iii) Provisions for other financial assets	
FS13	**Net income (before extraordinary items, taxes and *zakāh*) = FS08 – (FS09 + … + FS12)**	Annex L8
FS14	Extraordinary items	Annex L9
FS15	Provision for *zakāh*	
FS16	Income tax	Annex L10
FS17	**Net income after extraordinary items, taxes and *zakāh* / Net income before minority interest = FS13 – (FS14 + ... + FS16)**	**Annex L11**
FS18	Income attributable to minority interest	
FS19	**Net income after minority interest [= FS17 – FS18]**	
FS20	Dividends payable	Annex L12
FS21	**Retained earnings (= FS19 – FS20)**	**Annex L13**

[19] The DFS parallel the sectoral financial accounts in Annexes 2 through 5 of the *FSI Compilation Guide*. The FSI presentation does not separately identify the conventional and Islamic banking components, and data are compiled per the standards in the FSI Guide. In the DFS tables, a column is added showing the equivalent line in the FSI Annexes where relevant.

	Table 5.2: Consolidated Statement of Financial Position for IIFS	Equivalent FSI Code
FS22	**Total assets (= FS23 + ... + FS31 = FS32)**	**Annex L14**
FS23	Cash in hand	
FS24	Total Sharī`ah-compliant financing (excluding interbank financing)	
	Of which: *Ijara* and *istisnaa* financing***	Annex L15 part
FS25	Interbank financing	Annex L18a
FS26	*Sukūk* holdings	Annex L19 part
FS27	Other Sharī`ah-compliant securities	Annex L19 part
FS28	Investment funds, shares and other equities	Annex L20
FS29	Sharī'ah-compliant hedging instruments	Annex L21
FS30	Plant, property and equipment	Annex L15 part
FS31	All other assets	Annex L22
FS32	**Total funding/liabilities and equities (= FS33 + … + FS41)**	
FS33	Current accounts (non-remunerative funding)	
	(i) Current accounts of banks and other financial institutions	
	(ii) Non-remunerative (*qard* and *wadī`ah*) funding from customers	
	(iii) Other non-remunerative funding from customers	
FS34	Remunerative funding	
	(i) Profit-sharing investment accounts (*mudarabah*, *musharakah* basis)	
	(i.i) PSIA by banks (unrestricted + restricted)	
	(i.ii) All other unrestricted PSIA	
	(i.iii) All other restricted PSIA (on-balance sheet)	
	(ii) Other remunerative funding	
	(ii.i) *Wakālah* funding by banks	
	(ii.ii) All other *wakālah* funding	
	(ii.iii) *Tawwaruq*/commodity *murabahah* funding by banks	
	(ii.iv) All other *tawwaruq*/commodity *murabahah* funding	
	(ii.v) Other, not indicated elsewhere	
FS35	Other interbank funding/liabilities	Annex L24b
FS36	*Sukūk* issued	Annex L26 part
FS37	Other Sharī`ah-compliant securities issued	Annex L26 part
FS38	Payables	
FS39	All other liabilities	
FS40	**Equity of unrestricted investment account holders (if AAOIFI)**	
FS41	Shareholders' equity	Annex L30
	(i) Paid-up share capital	
	Of which: Amount eligible for CET1	
	Of which: Amount eligible for AT1	
	(ii) Retained earnings	
	(iii) Accumulated other comprehensive income	
	(iv) General and other reserves	
FS42	Balance sheet total (= FS32 = FS22)	Annex L31

	Table 5.3: DFS – Memorandum Items for IIFS	Equivalent FSI Code
FS43	**Tier 1 capital**	**Annex L32**
	(i) Common equity tier 1	
	(i.i) CET1 regulatory deductions and adjustments	
	(ii) Additional tier 1 capital	
FS44	Tier 2 capital	Annex L33
FS45	Other supervisory deductions	Annex L35
FS46	**Total regulatory capital (= FS43 + FS44 – FS45)**	Annex L36
FS47	**Risk-weighted assets (RWA)**	Annex L37
	(i) RWA for credit risk	
	(ii) RWA for market risk	
	(iii) RWA for operational risk	
	(iv) RWA funded by restricted PSIA	
	(v) RWA funded by unrestricted PSIA	
	Of which: (i) Credit risk-weighted assets (CRWA) funded by PER of UPSIA	
	(ii) Market risk-weighted assets (MRWA) funded by PER of UPSIA	
Series for further analysis of the balance sheet		
FS48	**Liquid assets**	L39/L40
	Of which: (i) Cash in hand and cash equivalent	
	(ii) Balance with central bank	
	(iii) Balance with other banks and financial institutions	
FS49	**Shari'ah-compliant high quality liquid assets (HQLA)**	
	Of which: (i) Level 1 assets	
	(ii) Level 2A assets	
	(iii) Level 2B assets	
Additional series for Shari'ah income distribution		
FS50	**Total income from assets funded from PSIA**	
	Of which: (i) Income from unrestricted PSIA	
	(ii) Income from restricted PSIA	
FS51	**Income distributed to IAH from assets funded by PSIA**	
	Of which: (i) Income distributed to unrestricted PSIA	
	(ii) Income distributed to restricted PSIA	
FS52	Total assets managed under off-balance-sheet RPSIA	
FS53	RPSIA assets reclassified as on-balance sheet during the period	
Additional "exposure" series for leverage indicators		
FS54	Total on-balance sheet assets	
FS55	Derivative exposures	
FS56	Securities financing transaction exposures	
Additional series sensitivity to market risks		
FS57	Number of large exposures	Annex L72
FS58	Value of large exposures	Annex L38
Additional series on SME activities		
FS59	Total amount of financing to small and medium enterprises (SME)	

5.1.1 Income Statement

232. The income statement of an IIFS includes the income and expenses related to its operations. Summary descriptions of the main broad elements of the income statement of an Islamic bank – net financing and investment income, other income, gross income, expenses and provisions, net income, distribution of net income, and retained earnings – are presented below.

Net financing and investment income

233. Net financing and investment income covers revenues generated from assets jointly funded by the bank and its depositors/investors less the distributions to IAHs. It is broadly equivalent to net interest income of conventional banks, which nets the interest revenues of the bank against the interest paid to deposits. The conventional bank net interest concept recognises that a bank incurs a strict liability to repay principal and interest on deposits and other funding, whereas the net financing and investment income concept recognises that income is generated from profit or rent from the various Islamic financing instruments based on sales-, lease- or equity-based financing, and that it is shared between the IIFS and IAH. Because of its special nature, income received from jointly funded assets is disclosed separately in the income statement.

234. Net financing and investment income (FS03) is a net concept that focuses on gross revenues from jointly funded assets (FS01) less (FS02)[20] (gross distributions to the IAH, expenses directly related to the financing income, and provisions on accrued income on non-performing assets). By excluding distributions to IAH, it represents amounts that contribute to net income of the IIFS, and thus is a potential source of own resources for the IIFS usable for dividends to the owners and for retained earnings.

235. Distributions to IAH are defined as their share of the net results. The return on investment accounts accrues to IAH from their participation in investment activities as their income from jointly funded assets such as from the IIFS's equity-based financing activities. Amounts not distributed to IAH represent the income accruing to the IIFS.

Other income items

236. In addition to the net income generated from financing and investment generated from jointly funded assets, an IIFS can earn other revenue in the course of its ordinary activities, such as sales of goods and services, fees and commissions, dividends, royalties and rent. Also, revenue can result from gains due to a net increase in assets held (or, conversely, losses due to a decrease in the value of assets) – that is, holding gains/losses during the period covered by the income statement. All the other income items are reported on a gross income basis, except for possible losses on financial instruments.

237. Prohibited earnings, or Sharī'ah non-compliant income,[21] may arise from non-*halal* (non-permissible) activities or from expenditures that do not comply with Sharī'ah rules and principles. Or the bank might be required to hold non-compliant instruments as part of its official monetary policy or supervisory activity. Although an IIFS would not, in the normal course of business, undertake Sharī'ah non-compliant activities, unusual circumstances may result in the IIFS generating income that is not in conformity with Sharī'ah rules and principles – for example, investment in the equity of corporations whose activities were earlier deemed as *halal* but which, over a period of time, became non-*halal* as these corporations transcended certain boundaries *of* Sharī'ah permissibility. Under such circumstances, the income of an IIFS should undergo *tazkiyyah*, or a purification process, with a separate disclosure of Sharī'ah non-compliant income: disclosure could be done with an item "*of which: Non-Sharī'ah-compliant*

[20] Net financing and investment income deducts expenses directly incurred in mobilising funding in order to generate income, but does not net out other general expenses incurred by the IIFS, such as wages, rent, utilities, *takāful*, administrative and other overhead expenses, etc. that can be described as operating or non-financing expenses.

[21] The IFSB defines Sharī'ah non-compliance risk as the risk arising from Islamic banks' failure to comply with the Sharī'ah rules and principles determined by the Sharī'ah board or the relevant body in the jurisdiction in which the Islamic bank operates.

income" as part of FS07 "Other income"; or for expenses as an item "*of which: Non-Sharī'ah-compliant expenses*" as part of FS11 "Other expenses".

Gross income

238. Gross income is the sum of net financing and investment income and other income. It is a measure of the overall revenues of the IIFS before deducting operating expenses and various provisions.

Expenses (operating expenses) and provisions

239. Non-financing and investment expenses are considered operating expenses that are netted from gross income. *In this Guide, consistent with AAOIFI guidelines, financing expenses are considered deductible from jointly funded income prior to distribution from jointly funded income to IAH, while operating expenses are deducted after distributions to IAH.*

240. Operating expenses include personnel costs, administrative expenses, and general expenses of running the IIFS. Depreciation is included as a separately enumerated type of expense.

241. *Hibah* expenses on remunerative accounts, because of their purely voluntary nature, are treated as a type of other expense and not as a financing-related distribution to IAH.

242. Provisions on non-performing financing and non-performing investment and on other financial assets are also deducted from gross income.

Net income

243. Net income equals gross income less operating expenses and provisions. Net income is calculated both before and after extraordinary items, ***zakāh*** and taxes are deducted. The "before" concept can be considered as a basic measure of the overall operating income of the IIFS, useful for comparisons between countries because it is estimated prior to deducting taxes, which can vary considerably between countries. It can also be used for comparisons with conventional banks, because it is estimated prior to deductions for ***zakāh***, which is not paid by conventional banks. The "after" concept is analytically important because it is the end-result income effectively available to the bank, either for use as dividend distributions to owners or for retained earnings to build the bank's balance sheet.

Distributions of net income

244. The net proceeds of the bank during the current period can be allocated in three ways: (a) as distributions to minority interests; (b) as dividends to the shareholders; or (c) held as retained earnings that build the capital of the bank.

5.1.2 Balance sheet

245. The main elements of the DFS balance sheet are assets, liabilities, equity of unrestricted PSIA and owners' equity.

Assets

246. An asset is a resource controlled by an IIFS, whether financed by owners or IAH, that gives the IIFS an enforceable right over the resource and from which it is entitled to current or future economic benefits. The asset should be capable of financial measurement with a reasonable degree of reliability; not associated with a non-measurable obligation or right to another party; and the IIFS has acquired the right to hold, use or dispose of the asset. Assets can also incur expenses to maintain or can experience losses through factors such as changes in market value, default or destruction.

247. Financial assets of an IIFS could be in the form of liquid assets (cash and cash equivalents); long-term or investment financial assets; financing assets in the form of sales financing, lease financing or equity financing; investment assets; or equity holdings.

248. For each category of financial asset, Islamic banks use various types of Islamic financial contracts that define the contractual rights and obligations of the counterparties, the distribution of returns, and the risks incurred by each party. For instance, sales financing assets can be based on *murābahah*, commodity *murābahah*, *salam* or *istisnā'* contracts; lease assets on *ijārah* and *ijārah muntahia bittamlīk* contracts; and equity financing or investments on *muḍārabah* and *mushārakah* contracts. Equity assets can include *ṣukūk*, various other Sharī'ah-compliant securities, and investment funds and shares. The DFS requires separate disclosure for each of the mentioned categories of assets in order to track the various types of financial flows involved; for supervisory purposes, instrument-by-instrument information is required to calculate relevant risk weights for the capital adequacy ratio, and to monitor the distribution of earnings between the IIFS and IAH. The information on financial instruments also provides information on the structural development of the market and the evolution of financing practices.

249. Joint funding of these assets can be by unrestricted PSIA, non-PSIA funds such as customer or demand deposits (savings and current accounts), and shareholders' funds. Income generated from jointly funded assets will be shared between all fund providers – namely, unrestricted IAH, shareholders and, in some cases, demand depositors, according to their profit-sharing agreements.

250. The credit and market risk exposures arising from jointly funded assets will be proportionately borne by unrestricted IAH. Operational risk to preserve the value and productivity of assets is borne by shareholders.

251. In general, the valuation of assets on the balance sheet is parallel to that of conventional financial instruments. Fair value or market value is required for most assets, with any gains or losses taken to income – which is "Fair value taken to profit or loss" (FVPL). Loans and receivables are valued at their amortised acquisition cost, but any reductions in value due to impairment must be recorded on the asset side of the balance sheet on a current basis. Assets available for sale[22] are valued at fair value in the balance sheet, but because gains/losses are unrealised the changes are not taken to income but are reported in "Other comprehensive income" until they have been realised – which is "Fair value through other comprehensive income" (FVOCI).

252. Although not expected in the normal course of business, any non-Sharī'ah-compliant assets carried on the balance sheet can be reported as "*of which: Non-Sharī'ah-compliant assets"* within "All other assets" (FS31).

Liabilities

253. A liability is an obligation (such as to purchase or redeem a financial instrument) to transfer assets (cash or other items of value) that is enforceable against the IIFS, as a result of financial contracts, transactions or events. For example, an obligation to repay a deposit under a *wadi'ah* contract, or to make payments to redeem a *ṣukūk*, are both liabilities. To be reflected as a liability on the Islamic bank's statement of financial position, the obligation must have the following additional characteristics: (a) the Islamic bank must have an obligation to another party; (b) the bank's obligation must be capable of financial measurement with a reasonable degree of reliability; and (c) the obligation must be capable of being satisfied through the transfer of the bank's assets to another party, extending to the other party the use of the Islamic bank's assets for a period of time, or providing services to the other party.

[22] Assets available for sale consist of tradable or redeemable instruments where there an intention to hold the instrument for an extended period; therefore, to avoid creating volatility in earnings, changes in the fair value of the instrument are not taken directly to income but are accumulated in a reserve until realised. Instruments classifiable as available for sale are often limited to those in which receipts consist solely of repayments of principal and payment of interest (or equivalent flows for Islamic financial instruments).

254. The liabilities side of an IIFS balance sheet can contain pure liabilities that are "capital certain" and must be repaid, or instruments with mixed liability/equity features. Demand deposits, such as current accounts and savings accounts, are considered liabilities guaranteed by owners' equity and, in most cases, represent non-*muḍārabah* funds such as *murābahah*, commodity *murābahah* or *wadi'ah* accounts. Other liabilities that could arise in the IIFS' balance sheet include finance-related deposits such as *salam* and *istisnā.* Such instruments are unambiguously deemed to be liabilities.

255. In contrast, the profit-sharing and profit-and-loss sharing features of some Islamic financial instruments can obscure the distinction between liabilities and equity. The treatment of mixed instruments can differ depending on whether the IFRS or AAOIFI standards are followed. The Guide provides flexibility for reporting of UPSIA as liabilities or quasi-equity, depending on country practices and the international standards followed by the respective jurisdictions, with a clarification in the metadata on the reporting framework used.

IFRS treatment

256. Under IFRS, a fundamental principle, as described in IAS 32: Financial Instruments: Presentation (2008 amendments), is that a financial instrument should be classified as either a financial liability or as equity according to the substance of the contract, not its legal form, and the definitions of financial liability and equity instrument. The IFRS discussion is framed in terms of the treatment of "puttable instruments" which give the holder the right to sell back or redeem the instrument with the issuer, which in financial market terms is to "put" the instrument back to the issuer. In general, puttable instruments are classified as liabilities, unless specific criteria are met to classify them as equity. For example, per IFRS, a *wadi'ah* account redeemable for cash is a liability, and unrestricted PSIA are also usually classified as a liability. However, units issued by an investment fund might be considered as equity shares in an underlying pool of assets – that is, the investment fund is deemed subordinate to the ownership of the underlying assets and thus constitutes an equity investment in those assets. As a result of the 2008 amendment, certain instruments previously classified as liabilities but which had characteristics similar to ordinary shares were reclassified as equity. Thus, shares issued by an Islamic investment fund could be treated as an equity investment. For compilation of the DFS in countries that follow IFRS, the classification as liability versus equity will be made by the individual IIFSs based on national financial accounting rules and does not raise DFS compilation issues.

AAOIFI treatment

257. The profit-and-loss sharing features of UPSIA are deemed to make it quasi-equity in nature. Equity of unrestricted IAH is not considered a liability because the Islamic bank is not obligated in case of loss to return the original amount of funds received (unless the loss is due to negligence or breach of contract). Likewise, equity of unrestricted IAH is not part of the ownership equity in the IIFS since the IAH do not enjoy the same powers and ownership rights, such as voting rights, and are not entitled to profits stemming from investment of the owners' own capital. The AAOIFI suggests that UPSIA can be presented on the balance sheet in a separate category halfway between liabilities and equity.[23] Where AAOIFI is followed, equity of unrestricted IAH is a unique feature in the balance sheet of an IIFS. The DFS line FS40 "Equity of unrestricted investment account holders (if AAOIFI)" covers this for countries following AAOIFI accounting rules.

"Equity of unrestricted IAH" refers to the amount remaining from the funds originally received by the Islamic bank from the IAH minus their share in the profits (losses) and minus withdrawals or transfers to other types of accounts.

[23] UPSIA and Islamic investment funds differ with respect to the mechanism for distribution of income to funders. UPSIA receive distributions out of the commingled funds of the IIFS based on features of specific Islamic financial instruments issued by the IIFS; whereas an investment fund will often be a separately constructed entity that sells shares in the underlying assets and provides residual claims on those underlying assets upon liquidation, which makes them more of an Islamic capital markets (ICM) instrument. Such distinctions will not always be clear-cut, and treatment might need to be determined by the facts in each case.

258. Reserves set aside from income distributable to unrestricted IAH are to be reported together with the equity balance of unrestricted PSIA. PER, which is set aside to smooth the returns paid to unrestricted PSIA, and IRR, which is set aside to buffer any potential loss exposure of unrestricted PSIA, are part of the total unrestricted PSIA balance. In some jurisdictions, features of PSIA are also found in current and savings accounts where funds are mobilised on the basis of unrestricted *muḍārabah* contracts. Under such circumstances, it will be useful to address any requirement of PER allocation for such demand deposits.

Treatment of restricted PSIA

259. In general, restricted investment accounts are off-balance-sheet because they are not considered an element of the Islamic bank's financial position since the Islamic bank does not have an unconditional right to use or dispose of these funds. However, in accordance with new consolidation standards in IFRS 10, RPSIA that are controlled by the IIFS and which affect the IIFS income as a result of that control should be treated on-balance-sheet, to be reported in FS34(i) if the RPSIA is funded by banks, or in FS34(iii) if the RPSIA is funded by others.

260. Although not expected in the normal course of business, any non-Sharī'ah-compliant liabilities carried on the balance sheet can be reported as "*of which: Non-Sharī'ah-compliant liabilities*" within "All other liabilities" (FS39).

Owner's equity

261. "Owner's equity" refers to the residual interest in the assets of the IIFS after deducting the bank's liabilities, and equity of unrestricted IAH and any prohibited earnings.

5.1.3 Memorandum Series

262. Several of the underlying data series required to calculate some of the PSIFIs are not directly available from sectoral financial statements. They are derived from the memorandum items that provide supplemental information about items related to, but not included in, the DFS sectoral financial statements. The memorandum series provide three types of information: (a) supervisory series; (b) series for income statement analysis; and (c) series for balance sheet analysis.

263. The supervisory series are directly sourced from supervisory information. Series for income statement analysis and for balance sheet analysis are derived from the income statement and the balance sheet, respectively, but require additional calculations or information beyond those presented in the balance sheet and income statement to arrive at them.

264. Major memorandum data categories are listed below. Detailed descriptions of the items are included in the descriptions of the individual PSIFIs.

Explanatory notes for DFS income statement

FS01 Gross financing and investment income

265. This is comprised of gross revenue or income earned from mobilisation of jointly funded assets, which are commingled assets provided by the IAH and by the IIFS from its own capital and other funding such as current accounts deposits. Income is generated from various types of financing, including income earnings from sales financing (FS01(i.i)), income from lease financing (FS01(i.ii)), income from equity financing (FS01(i.ii)), income from other financing (FS01(i.iv)), plus investment income (FS01(ii)).

(FS01(i.i)) Sales based

(FS01(i.ii)) Lease based

(FS01(i.iii)) Equity based

(FS01(i.iv)) Others

FS01(ii) Investment income

266. Investment income includes profit income and dividends on investment ventures and securities holdings, and realised gains/losses on securities transactions. It excludes income from the sale of equity in associates, subsidiaries and reverse equity investments, as well as any financing income included in the net financing income account. Investment income earned represents only income earned on Sharī'ah-permissible securities or financial instruments.

Of which: Income from sukuk and other Sharī'ah-compliant securities

FS02(i) Share of income attributable to on-balance sheet PSIA

267. This is the share of earnings on jointly funded assets that per Islamic financial instruments contracts is due to unrestricted IAH. It is the amount to which IAH are entitled, but actual receipts may be less because of provisions for non-performing assets in FS02(iii). National compilers are expected to disclose the allocation of income between unrestricted IAH, other account holders (depositors) and the share of IIFS as *muḍārib*.

FS02(ii) Share of income taken as profit equalisation reserves (PER)

268. To remain competitive in attracting funding, IIFS may set aside a certain amount of income due to IAH in a reserve to smooth the flow of income to UPSIA. Higher income in good periods is used to build reserves that will be used to increase distributions to IAH in periods with lower income. PER is deducted before setting the IIFS's share as *mudarib*.

FS02(iii) Provisions for accrued income on non-performing assets

269. These are deductions taken from accrued income generated on non-performing assets, in recognition that contracted earnings expected are not actually received.

FS03 Net financing and investment income

270. This is a measure of total revenues accruing to the IIFS from jointly funded assets. FDS03 = FS01 "Gross financing and investment income" – FS02 (IAH income share + Income taken to PER + Provisions for income on non-performing assets).

FS04 Bank's income as muḍārib from off-balance-sheet RPSIA

271. This covers IIFS income for managing off-balance-sheet restricted profit-sharing investment accounts, either from the IIFS' share in investment profit as *muḍārib* or from a fixed fee as an investment agent. Gross income generated on any on-balance-sheet RPSIA should be reported in FS01 "Gross financing and investment income".

FS05 Fees and commission income: Fee-based income

272. This is the income earned on services rendered by an IIFS, such as payment services, intermediary services, transaction services in securities (brokerage and underwriting of new issues, etc.), and services related to asset management, among others.

273. In line with IFRS, transaction costs that may include direct and attributable fees/commissions that are an integral part of the origination or ongoing involvement with a financial instrument may be deferred and recognised as an adjustment to the effective yield of the instruments; hence, they are not recorded under this category of income.

FS06 Gains and losses on financial instruments

274. Includes unrealised gains and losses during each period on all financial instruments and securities (financial assets and liabilities, in domestic and foreign currencies) valued at fair value through profit and loss (FVPL). Currency translation gains/losses on instruments carried as FVPL will be reported in this item.
275. Depending on national financial accounting rules, gains/losses on holdings treated as at fair value taken to other comprehensive income (FVOCI) might be recorded here or as a component of FS14 "Extraordinary items" (in which case the treatment should be reported in metadata). National financial accounting rules might exclude FVOCI instruments from FS06 because they could contribute volatility to reported income.

FS07 Other income

276. Other income may include IIFS income from its own investments; dividends declared payable by other corporations or cooperatives in which an IIFS has an equity stake (typically recorded using the equity method); gains or losses on sales of fixed assets; rental and royalty income receivable; other produced and non-produced assets, etc.; and any amounts receivable arising from compensation for damage or injury.

FS08 Gross income

277. Total gross income is the sum of FS03 "Net financing and investment income" and all other non-financing income (FS04 through FS07). It summarises total income available to the IIFS, from which FS09 "Non-financing and non-investment expenses" and FS11 "Provisions" will be subtracted to calculate FS13 "Net income of the IIFS (before extraordinary items, ***zakāh*** and taxes)".

FS09 Non-financing and non-investment expenses

278. This refers to non-financing expenses or operating costs not directly attributable to the mobilisation of jointly funded assets, including personnel, administrative and other overhead expenses, as well as non-operating expenses and other expenses such as depreciation and *hibah*.

FS11(i) Of which: Depreciation

279. Depreciation is recognised over the estimated useful lives of fixed assets other than assets related to sales, lease and equity financing. It may include impairment loss on intangible assets (if any).

FS11(ii) Of which: Hibah expenses for remunerative accounts

280. *Hibah* expenses of IIFS are voluntary payments by the bank to holders of various Islamic financial instruments. They are not considered as FS02(i) distributions to PSIAs because they are not prescribed parts of the PSIA contracts and are purely voluntary and at the discretion of the IIFS.

FS12 Provisions

281. Three provisions are specified for the DFS: FS12(i) "Provisions for non-performing financing"; FS12(ii) "Provisions for non-performing investment"; and FS12(iii) "Provisions for other financial assets".

FS13 Net income before extraordinary items, zakah and taxes

282. Net income before extraordinary items, *zakah* and income tax is the income earned by shareholders after deducting all expenses, but before deduction for extraordinary items, *zakah* and taxes. It is a measure of overall operating income useful for comparisons between countries without consideration of tax levels that can vary considerably between countries. It can also be used for comparisons with conventional banks that do not pay ***zakāh***.

FS14 Extraordinary items

283. The IFRS ceased recognising extraordinary items in 2002.[24] The entry is retained in the DFS because some countries still include it in their accounting standards. Extraordinary items may comprise income or expenses arising from events or transactions out of the ordinary in relation to the business activities usually carried out by IIFS and which therefore are not expected to recur frequently or regularly. Such events should be rare and include catastrophic losses arising from natural or other disasters. Entries for "Other comprehensive income" (OCI) might be included (for lack of other locations to make such entries) within extraordinary items if *per national financial accounting rules* they are not recorded in FS06 "Gains and losses on financial instruments". OCI includes assets held as fair value with changes recorded in "Other comprehensive income" (FVOCI), which typically includes unrealised gains and losses calculated on a fair-value basis, such as on holdings of assets classified as available for sale, or for foreign currency translation gains or losses. Because they are not yet realised, such gains/losses are likely not to be recorded as part of "Gains and losses on financial instruments" or taken directly to current income; instead, OCI gains/losses can be recorded here in the income statement below net operating income as FS13 "Net income (before extraordinary items, *zakāh* and taxes)" and in the balance sheet as FS41(iii) "Accumulated other comprehensive income". Any such entries made in "Extraordinary items" should be noted in metadata.

FS15 Provision for zakāh

284. *Zakāh* is an annual contribution paid by IIFS at the rate of 2½% of outstanding wealth.

FS16 Income tax

285. "Income tax" refers to the corporate tax deducted from taxable corporate income.

FS17 Net income after extraordinary items, zakah and taxes

286. Equals FS12 "Net income before extraordinary items, *zakah* and taxes" less FS14, FS15 and FS16. It is a measure of the amount of income effectively earned by the bank through its operations that can be used for comparisons of performance against other banks. It also equals the funds earned during the period that can be used for distributions to shareholders or minority interests and held as retained earnings to bolster the bank's capital.

FS18 Net income attributable to minority interest

287. This represents distributions to significant minority owners of subsidiaries controlled by the bank. It represents the portion of current profit or loss and equity that is not held by the IIFS in consolidated subsidiaries. The item reflects IFRS 12 consolidation standards that require a single controlling parent's consolidated financial statement to cover all income, assets and equity of any subsidiaries with significant minority ownership, but with reporting of distributions to "minority interests" to indicate that a portion of the income generated by that subsidiary is no longer available to the controlling parent.

FS19 Income after minority income

288. This item reveals the net income after all operations and deductions available for the IIFS, either for distribution as dividends to owners or to hold internally as retained earnings.

FS20 Dividends payable

289. Dividends are the amounts declared payable to the owners or shareholders of IIFS after all other expenses have been met.

FS21 Retained earnings

[24] Although "Extraordinary items" is no longer recognised as a separate entry on the income statement, national authorities sometimes require separate disclosures of unusually large or abnormal income or expenses.

290. Retained earnings reflect the net income available to IIFS after deducting dividends payable, which will be posted to the retained earnings account of capital and reserves.

Explanatory notes for DFS balance sheet

FS22 Total assets

291. Total assets represent the summation of non-financial assets and financial assets financed by shareholders' funds, IAH (excluding off-balance-sheet restricted PSIA), as well as from other deposits or liabilities.

FS23 Cash in hand

292. This item includes all forms of cash and cash-equivalent items, such as cash balances with the central bank, cash deposits with other IIFS, other short-term interbank operations, and placements in Sharī'ah-approved short-term money market financial instruments.

FS24 Total Sharī'ah-compliant financing (excluding interbank financing)

293. This item includes holdings of Islamic financial instruments used by IIFS to provide financing, except financing provided to other banks, which is in FS25. Included are all types of financing instruments (sales-, lease- and equity-based), and other forms of financing such as fee-based services such as *wakālah*.
294. In accordance with IFRS 9, which specifies that reductions for impairment should be reflected on the asset side of the balance sheet by direct write-down in value or as an explicit allowance, financing should be at fair value (which reflects any impairment of the asset on a current basis) or net of specific provisions/allowances when potential losses are identified for individual financings, or for losses of a pool of collectively assessed small financings with common characteristics.

FS24(i) Of which: Ijara and istisnaa financing

295. This item includes the value of *ijara* and *istisnaa* financial instruments assets held by the IIFS. These instruments are considered proxies for the value of real assets underlying the financial contracts, which should be distinguished from the real assets in FS30 "Plant, property and equipment" which are not under financial contract for delivery or leasing.
296. Non-financial assets available for sale are reported as inventory of real assets held for sales financing. Non-financial assets related to lease financing are leased assets with no condition of ownership transfer to the customer. For *muḍārabah* contracts, IIFS may provide a non-financial *muḍārabah* asset as capital in the profit-sharing agreement. The amount presented for fixed assets is net of accumulated depreciation.

FS25 Interbank financing

297. This item includes financing from IIFS to other banks or amounts due from banks. Data from all IIFS with other banks are aggregated, meaning there is no consolidation of financing positions between IIFS.

FS26 Ṣukūk holdings

298. Holdings of Islamic bonds, which represent shares in the ownership of tangible assets related to specific projects.

FS27 Other Sharī'ah-compliant securities

299. All other Sharī'ah-compliant securities.

FS28 Investment funds, shares and other equity

300. IIFS undertake several forms of investments that are disclosed according to specific financial instruments, which may include: Sharī'ah-permissible quoted shares; Sharī'ah-permissible

non-quoted shares; Sharī'ah-permissible trust certificates; Sharī'ah-permissible property/real estate; and Sharī'ah-permissible structured products.

FS29 Sharī'ah-compliant hedging instruments

301. This item includes Sharī'ah-compliant contingencies and "derivatives". Although the development of Islamic derivatives has been limited because of the prohibition on interest, the requirement of a genuine underlying transaction, and prohibitions on speculative risk, derivatives markets have developed over the past 20 years. Efforts at standardisation of products have begun but remain limited, and proprietary products are not uncommon with some developed by head offices in international financial centres for use in hedging clients' international commodity price and exchange rate risk. Because derivatives can shift values quickly and can take either positive or negative values, derivatives positions are usually reported as a net value of those with positive values and those with negative values.
302. Some derivatives are based on *salam*, which is a forward financing instrument under which the IIFS pays in advance to buy specified assets to be supplied on a pre-agreed date. Parallel *salam* contracts and parallel *istiṣnā'* contracts are sales financing-related liabilities in the form of deposits received by IIFS in conjunction with sales financing – that is, current trade-related assets purchased (*salam* financing) or construction (*istiṣnā'* financing) with an agreement for delivery in the future.

FS30 Plant, property and equipment

303. This item covers fixed assets, which are long-term non-financial assets (such as property, machinery, and equipment, vehicles and furniture) used by an IIFS in the production of its income and which are not expected to be consumed or converted into cash in the normal course of business operations.

FS31 All other assets

304. This item includes any other assets not accounted for elsewhere. Other assets may include accrued but unpaid dividends, prepaid expenses, other items due to be received or paid, and other non-banking or incidental assets reported by an IIFS as part of its operations. Although not expected in the normal course of business, any non-Sharī'ah-compliant assets carried on the balance sheet can be reported here as "*of which: Non-Sharī'ah-compliant assets*".

FS32 Total funding/liabilities and equities

305. The balance sheet total represents the summation of total liabilities, equity of unrestricted IAH, and capital and reserves. Obligations that are contingent liabilities, guarantees, and other commitments of the IIFS do not appear on the IIFS balance sheet.

FS33 Current accounts (non-remunerative funding)

306. Current accounts or chequing accounts are deposits reported as liabilities in the balance sheet of IIFS and are available on demand and usable for making payments through a variety of payment modes. This disclosure line item segregates non-*muḍārabah* current accounts, which are based either on *al wadī'ah* or *qarḍ* contracts and do not remunerate depositors, from *muḍārabah* current accounts, which compensate account holders. A distinction is made throughout between accounts with banks and accounts with other customers.

FS33(i) Current accounts of banks

307. These are current account liabilities to banks, which is one of the counterparts of FS25 "Interbank financing".

FS33(ii) Non-remunerative (qard and wadiah) funding from customers

308. These are safekeeping and current accounts of non-bank customers. Amounts deposited are guaranteed, and funds can be withdrawn without limit.

FS34 Remunerative funding

309. This item covers all forms of financing that provide income distributions to account holders. Accounts that otherwise would be non-remunerative, but voluntarily pay *hibah*, are not included here but should be reported in FS33. A distinction is made throughout between accounts with banks and accounts with other customers.

FS34(i) Profit-sharing investment accounts (mudarabah, musharakah)

310. This item captures all on-balance-sheet unrestricted and on-balance-sheet restricted PSIA. Off-balance-sheet restricted PSIA are not included.

FS34(i.i) PSIA of banks (unrestricted and on-balance-sheet restricted)

311. This covers all UPSIA of banks and any on-balance-sheet restricted PSIA of banks.

FS34(i.ii) All other unrestricted PSIA

312. This covers unrestricted PSIA of non-bank customers. This line item should disclose the outstanding balance of unrestricted PSIA funds, as well as any amount of distributable income to unrestricted IAH that is set aside in the PER and IRR.

313. Savings accounts are reported as liabilities in the balance sheet of IIFS. They may be available on demand but without direct third-party payment features and may have payment restrictions such as a limit on payments, withdrawals or minimum length of time (fixed deposit). At some IIFS, profit-sharing contracts are used to establish their relationship with savings account holders.

FS34(i.iii) All other on-balance-sheet restricted PSIA

314. This covers all on-balance-sheet restricted PSIA of non-bank customers.

FS34(ii) Other remunerative funding

FS35(ii.i) Wakālah funding by banks

FS35(ii.ii) All other wakālah funding

FS35(ii.iii) Tawarruq /commodity murābahah funding by banks

FS35(ii.iv) All other tawwaruq/commodity murābahah funding

FS35(ii.v) Other, not indicated elsewhere

FS35 Other interbank funding/liabilities

315. Covers any other funding by banks or various forms of banking business liabilities of the IIFS to other banks that might not typically be viewed as forms of funding.

FS36 Ṣukūk issued

316. Issuance of Islamic bonds, which represent shares in the ownership of tangible assets related to specific projects.

FS37 Other Sharī'ah-compliant securities issued

317. This item discloses the amount of all other Sharī'ah-compliant securities issued, including issued certificates of credit and Sharī'ah-compliant repurchase agreements.

FS38 Payables

318. Obligations incurred in the course of normal banking business that have not yet been paid. Can include taxes and fees due.

FS39 All other liabilities

319. Any other liabilities not covered elsewhere. This line item discloses other types of liabilities not included above, including all other forms of trade payables such as any credit transactions involving operating activities of an IIFS, which may consist of accrued utility expenses, and provision for commitments/contingencies, among others. Other liabilities can include product liability or court-mandated payments. Although not expected in the normal course of business,

any non-Sharī'ah-compliant liabilities carried on the balance sheet can be reported here as "*of which: Non-Sharī'ah-compliant liabilities*".

FS40 Equity of unrestricted investment account holders (if AAOIFI)

320. Covers the value of quasi-equity liabilities to IAH in countries applying AAOIFI financial accounting standards.

FS41 Shareholders' equity

321. "Capital and reserves" refers to owners' or shareholders' equity, which may include paid-up ordinary share capital, preference share capital, reserves, current surplus/(loss) from the sale of fixed and long-term investments, PER from distributable income set aside for shareholders, as well as any other funds contributed by owners.
322. Capital and reserves also represent the difference between total assets and total liabilities and any equity of unrestricted IAH in AAOIFI countries, which equals FS22 "Total assets" less FS33 through FS40. Among components of this item are paid-in capital of owners, approved audited part-year profits/(losses), share premiums, retained profits/(losses), and various reserves such as general reserve fund, statutory and legal reserve funds, revaluation reserves, and capital redemption reserve.

FS42 Balance sheet total

323. Equals FS22 "Total assets" = FS32 "Total funding/liabilities and equities".

Explanatory notes for DFS Memorandum Series

Supervisory series

FS46 Total regulatory capital = FS43 + FS44 + FS45

324. This item covers regulatory capital as defined by the Basel Committee on Banking Supervision, which is used as a numerator in the BCBS capital adequacy ratio or alternatively in the IFSB capital adequacy standard (IFSB-15).

FS43 Tier 1 capital

325. This item refers to the definition of tier 1 capital (going-concern capital) as defined by BCBS or IFSB-15. It equals the sum of FS43(i) (after supervisory deductions and adjustments) and FS43(ii).

FS43(i) Common equity tier 1 capital (CET1)

326. This item refers to the common equity tier 1 regulatory capital, which is the most stringent definition of core capital that has the highest degree of liquidity and capital certainty, as defined by the BCBS or the IFSB-15 standard. CET1 is comprised mostly of issues of common stock, retained earnings and accumulated other comprehensive income (AOCI). CET1 is measured after supervisory deductions and adjustments specifically applicable to CET1 Among adjustments and deductions to CET1 are elimination of goodwill, some deferred tax assets, and various intangible assets, and there are several threshold deductions.

FS43(ii) Additional tier 1 capital

327. This item refers to additional tier 1 regulatory capital as defined by the BCBS or the IFSB-15 standard. Additional tier 1 capital is not common equity, but is high quality and considered eligible to be included in tier 1 capital. It includes contingent convertible securities with a perpetual term and convertible into equity when CET1 capital falls below a certain threshold.

FS44 Tier 2 capital

328. Tier 2 capital is a component of total regulatory bank capital. It includes revaluation reserves, undisclosed reserves, hybrid instruments and subordinated term debt.

FS45 Other supervisory deductions

329. This item covers additional deductions and adjustments other than those specific to CET1 capital, as defined by the BCBS or the IFSB-15 standard. Many of the deductions are threshold adjustments on total holdings of tier 2 capital that are designed to limit the extent of exposure of individual IIFSs to capital investments in other financial institutions in order to limit (a) double-counting of capital within the sector, and (b) the potential transmission of financial stresses between banks stemming from losses in individual banks.

FS47 Risk-weighted assets

330. This item refers to the total risk-weighted assets as defined by the BCBS, which is the sum of credit, market and operational risk.
331. Alternatively, if the IFSB-15 standard formula is followed, this item refers to the RWA for credit, market risk and operational risks, minus the RWA for credit risk and market risk funded by PSIA. The total RWA funded by PSIA would be the sum of the RWA funded by restricted and unrestricted PSIA.
332. If the RWA is calculated on the basis of the supervisory discretion formula, the item represents the RWA for credit, market and operational risks minus the RWA funded by PSIA for credit risk and market risks, excluding a proportion (1–α) of RWA funded by unrestricted PSIA for credit and market risks and a proportion (α – 'alpha') of RWA funded by PER and IRR of unrestricted PSIA for credit and market risk. The portion defined as α (as determined by national supervisory authorities) of credit and market RWA funded by PSIA is deemed as borne by IIFS due to the displaced commercial risk. All operational risk arising from the management of these assets is borne by the IIFS.
333. Subcategories of RWA detail the RWA associated with the various types of risks described in the paragraph above.

FS47(i) RWA for credit risk

FS47(ii) RWA for market risk

FS47(iii) RWA for operational risk

FS47(iv) RWA funded by restricted PSIA

FS47(v) RWA funded by unrestricted PSIA

Of which: (i) Credit risk-weighted assets (CRWA) funded by PER of unrestricted profit-sharing investment account (UPSIA)

(ii) Market risk-weighted assets (MRWA) funded by PER of UPSIA

Series for further analysis of the balance sheet

FS48 Liquid assets

334. In general, liquid assets comprise assets that are readily available to meet any demand for cash. 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. 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. Core liquid assets consist of only parts (i) and (ii) of the definition for broad liquid assets.

Of which: (i) Cash on hand and cash equivalent

(ii) Balances with central bank

(iii) Balances with other banks and financial institutions

FS49 Sharī'ah-compliant high-quality liquid assets

335. This item refers to the high-quality liquid assets (HQLA) based on the definition of HQLA in IFSB Guidance Note 6 (GN-6) on the quantitative measures for liquidity risk management.

Additional series for Sharī'ah income distribution

FS50 Total income from assets funded by PSIA

336. This item refers to the value of total income generated from Sharī`ah-compliant financing from assets funded by PSIAs, which includes both restricted and unrestricted funds.

Of which: (i) Income from unrestricted PSIA

(ii) Income from restricted PSIA

FS51 B_MS.1 Income distributed to IAH from assets funded from PSIA

337. This item refers to the distributions to IAH out of financing and investment income generated using PSIA funds, both restricted and unrestricted, following adjustments for any flows into or out of PER and IRR.

Of which: (i) Income distributed to unrestricted PSIA

(ii) Income distributed to restricted PSIA

FS53 RPSIA assets reclassified as on-balance-sheet during the period

338. This item refers to the amount of restricted PSIA assets reclassified during the period from off-balance-sheet status to on-balance-sheet status. It is requested to determine if any significant change in the volume of asset balances occurred due to accounting redefinition of RPSIA.

Additional exposure series for leverage indicators

339. These items represent all exposures for on-balance-sheet assets, Sharī'ah-compliant derivative exposures, Sharī'ah-compliant securities financing transaction exposures, and other off-balance sheet exposures, as specified in the BCBS Basel III leverage ratio framework and disclosure requirements. Each of these component items must be calculated to generate the measure of total exposure.

Additional series on sensitivity to market risks

FS58 Value of large exposures

340. This item refers to the number of cases of credit exposures to the same individual or group of individuals that exceed a certain percentage of regulatory capital, per percentage limits specified by national supervisors.

FS58 Value of large exposures

341. This item refers to one or more credit exposures to the same individual or group of individuals that exceed a certain percentage of regulatory capital, per percentage limits specified by national supervisors.

Additional series on SME activities

FS59 Financing of small and medium-sized enterprises

342. Total amount of financing to SMEs, per size thresholds set by national supervisors.

5.2 Statement of Restricted Investment Accounts of Islamic Banks

343. The statement of restricted investment accounts of Islamic banks is a separate schedule that covers changes in restricted investments managed by the Islamic bank for the benefit of others, whether based on a *muḍārabah* contract or an agency contract.

344. *The statement is not within the scope of the PSIFI data collection project* but is offered below because it provides important information about the extent of Islamic financial activity and the business of IIFSs. It is a necessary tool for supervision of IIFSs and is potentially analytically interesting information for the general public.

Table 5.4: Line-by-line Items in the Statement of Restricted Investment Accounts of Islamic Banks

	Item Identifier	Operations
Total restricted PSIA funds as well as segmented investment portfolios (beginning of the period)	B_SRIA.1	B_SRIA.1.a + B_SRIA.1.b
Deposits received	B_SRIA.1.a	
Amounts received out of units issued	B_SRIA.1.b	
Amount of investments of restricted PSIA funds (beginning of the period)	B_SRIA.2	
Amount of PER (beginning of the period)	B_SRIA.3	
Amount of IRR (beginning of the period)	B_SRIA.4	
Total investments and reserves (beginning of the period)	B_SRIA.5	B_SRIA.2 + B_SRIA.3 + B_SRIA.4
Amount	B_SRIA.5.a	
Number of outstanding investment units	B_SRIA.5.b	
Unit value (beginning of the period)	B_SRIA.6	B_SRIA.5.a / B_SRIA.5.b
Placement of deposits and/or purchase of investment units by restricted IAH	B_SRIA.7	
Deposits received	B_SRIA.7.a	
Purchase of investment units	B_SRIA.7.b	
Withdrawal of deposits and/or sale of investment units by restricted IAH	B_SRIA.8	
Deposits withdrawn	B_SRIA.8.a	
Amounts paid for units cancelled	B_SRIA.8.b	
Net movements of restricted PSIA funds (end of the period)	B_SRIA.9	B_SRIA.7 – B_SRIA.8
Net changes in the amount of deposits	B_SRIA.9.a	B_SRIA.7.a – B_SRIA.8.a
Net amounts received/(paid) due to changes in the outstanding number of units	B_SRIA.9.b	B_SRIA.7.b – B_SRIA.8.b
Amount of investments of restricted PSIA funds (end of the period)	B_SRIA.10	
Investment income	B_SRIA.11	
Profit (or loss) on disposal of investments and unrealised capital gain (or loss)	B_SRIA.12	
Administrative expenditures	B_SRIA.13	
IIFS's fee as an agent	B_SRIA.14	
Net investment income	B_SRIA.15	B_SRIA.11 + B_SRIA.12 – B_SRIA.13 – B_SRIA.14
Amount of profits transferable to/from PER	B_SRIA.16	
Amount of profits transferable to/from IRR	B_SRIA.17	
Total restricted PSIA funds (end of the period)	B_SRIA.18	B_SRIA.1 + B_SRIA.9
Deposits received	B_SRIA.18.a	B_SRIA.1.a + B_SRIA.9.a
Amounts received out of units issued	B_SRIA.18.b	B_SRIA.1.b + B_SRIA.9.b
Amount of PER (end of the period)	B_SRIA.19	B_SRIA.3 (+/-) B_SRIA.16
Amount of IRR (end of the period)	B_SRIA.20	B_SRIA.4 (+/-) B_SRIA.17
Total investments and reserves (end of the period)	B_SRIA.21	B_SRIA.10 + B_SRIA.15 + B_SRIA.18 + B_SRIA.19 + B_SRIA.20
Amount	B_SRIA.21.a	
Number of outstanding investment units	B_SRIA.21.b	
Unit value (end of the period)	B_SRIA.22	B_SRIA.21.a / B_SRIA.21.b

Explanation of line items in statement of restricted investment accounts

(B_SRIA.1) Total restricted PSIA funds and segmented investment portfolios (beginning of period)

345. This line item refers to the brought-down balance of total funds mobilised by IIFS on behalf of restricted IAH. The statement may include deposits received (B_SRIA.1.a) and/or the amount of monies received in exchange for investment units issued (B_SRIA.1.b) by IIFS.

(B_SRIA.2) Amount of investments of restricted PSIA funds (beginning of period)

346. This line item refers to brought-down balance at market value of amount of total restricted PSIA funds effectively invested.

(B_SRIA.3) Amount of PER (beginning of period)

347. This line item refers to brought-down balance of outstanding value of PER allocated to restricted IAH, set aside from net profits on investments or net investment incomes in previous periods.

(B_SRIA.4) Amount of IRR (beginning of period)

348. This line item refers to brought-down balance of outstanding value of IRR allocated to restricted IAH, set aside from net profits on investments or net investment incomes in previous periods.

(B_SRIA.5) Total amount of investments and reserves (beginning of period)

349. "Total investments and reserves at market value" refers to the sum of the outstanding values of investments of restricted PSIA funds, as well as of PER and IRR. This line item can be disclosed in terms of outstanding amount or outstanding number of investment units in circulation.

(B_SRIA.6) Unit value (beginning of period)

350. The unit value at the beginning of the period is derived based on the total market value of outstanding investment units.

(B_SRIA.7) Placement of deposits and/or purchase of investment units by restricted IAH

351. This item discloses the amount of deposits received and/or the amounts received from restricted IAH in exchange for investment units issued by IIFS.

(B_SRIA.8) Withdrawal of deposits and/or sale of investment units by restricted IAH

352. This item discloses the amount of deposits withdrawn and/or the amounts paid by IIFS to repurchase investment units from restricted IAH.

(B_SRIA.9) Net movements of restricted PSIA funds (end of the period)

353. Net movements of restricted PSIA funds reflect the net result between positive flows and negative flows in terms of net amount of deposits and/or net amounts received due to changes in the outstanding number of investment units.

(B_SRIA.10) Amount of investments of restricted PSIA funds (end of the period)

354. This line item refers to the amount at market value of total restricted PSIA funds effectively invested as at the end of the period after taking into account net movements of investments.

(B_SRIA.15) Net investment income

355. These line items disclose the income generated from investment activities such as dividend or other types of returns on investment; the recognition of profit (or loss) on sale or disposition of investments made using restricted PSIA funds and, where applicable, unrealised capital gain (or loss); as well as deduction of administrative expenditures and the IIFS's fee as an agent in order to determine net investment profit income. In addition, the amount of profits transferable to/from PER and IRR, set aside before dividends distributable or capitalised as investment units, is calculated based on net investment income.

(B_SRIA.18) Total restricted PSIA funds (end of period)

356. This line item refers to total funds mobilised by IIFS on behalf of restricted IAH, after taking into account net movements of restricted PSIA funds. This line item can be segregated into deposits received and/or amounts received from investment units issued by IIFS.

(B_SRIA.21) Total investments and reserves (end of period)

357. "Total investments and reserves" refers to the sum of the outstanding amount of investments of restricted PSIA funds at market value, as well as the outstanding balance of PER

(B_SRIA.19) and IRR (B_SRIA.20). This line item can be disclosed in terms of outstanding amount or as outstanding number of investment units in circulation.

(B_SRIA.22) Unit value (end of period)

358. The unit value represents the value per unit at market price of the outstanding number of investment units in circulation after taking into account capitalisation or dividends.

PART III: SPECIFICATION OF PRUDENTIAL AND STRUCTURAL ISLAMIC FINANCIAL INDICATORS

CHAPTER 6: PRUDENTIAL AND STRUCTURAL ISLAMIC FINANCIAL INDICATORS

359. This chapter defines the PSIFIs and how they are to be calculated, bringing together the concepts, definitions and consolidation methodologies discussed in Parts I and II of the Compilation Guide.

360. The PSIFIs consist of two types of statistics – namely, the PSIFI ratios and the underlying data series from which the PSIFIs are drawn. The aggregated underlying data series are sourced from three major sets of information: commercial accounting data, supervisory-based data series (including memorandum items in financial statements), and national accounts-based data. This chapter outlines sources of data for each PSIFI and the aggregation and consolidation methodologies that may be used in the compilation of the respective PSIFI.

361. The PSIFIs represent two categories of indicators: Prudential Islamic Financial Indicators (PIFIs) and Structural Islamic Financial Indicators (SIFIs).

a. The PIFIs are further delineated into two sets of indicators: 19 “Core” high-priority prudential indicators of banking sector stability, and a set of eight “Additional” prudential indicators which countries are encouraged to compile. Core indicators are indicators that are analytically significant and relevant in most circumstances (i.e. not country-specific), generally available, and of high-perceived usefulness. Additional indicators are also relevant for financial stability assessment, but their importance may vary from one country to another.

b. Eight SIFIs facilitate assessments related to the financial structure, the breadth and level of development of a country’s IFSI, as well as accessibility of the population to different IFSI segments.

6.1 Specification of Core Prudential Islamic Financial Indicators

362. The Core Prudential Islamic Financial Indicators (Core PIFIs) are key indicators that are believed to best capture the strengths and vulnerabilities of the sector. They are grouped into six categories: capital adequacy, asset quality, earnings, leverage, liquidity, and sensitivity to market risks. These indicators are closely aligned with Basel III, as well as with the IMF’s Financial Soundness Indicators, but are adjusted to align with the features of Islamic finance. PSIFI indicators that closely parallel the FSIs are denoted “*(FSI equivalent)”.*

6.1.1 Capital Adequacy

363. Capital adequacy ratios measure the amount of an IIFS’s capital expressed as a percentage of its risk-weighted credit exposures. It is a measure of systemic solvency**,** indicating the capability of the IIFS to absorb financial loss generated from financial shocks of various sorts. The higher the degree of systemic solvency, the stronger the public confidence, since customers would perceive highly capitalised Islamic banks as providing better financial protection. Besides loss absorbency, systemic solvency also indicates the capacity of the industry to further expand its operations and promote general economic growth.

364. The most common ratio for measuring capital adequacy is the *risk-weighted capital ratio* that divides total capital by risk-weighted assets – with both the numerator and denominator compiled according to specific supervisory standards. The analysis can be further elaborated to the ratio of *tier 1 to the total RWA* and *common equity tier 1 capital (CET1) to RWA*; both ratios focus on the strongest elements of core capital as buffers to risk.

365. Some PSIFI countries have already implemented Basel III capital ratios, but some countries are currently following Basel II or Basel I.

366. Countries that are currently following Basel II and I shall report only the capital adequacy ratio and tier 1 capital ratio, whereas countries that have begun implementation of Basel III shall report all three capital adequacy indicators including the CET1 capital ratio.

Countries are asked to specify the Basel standard being followed alongside the ratio and in the metadata. Some countries have implemented IFSB-15: *Capital Adequacy Standard*, which accounts for the specificities of Islamic banking in guidance on measuring capital and RWA. The Guide encourages countries to report the CARs for both the Basel standard and the IFSB guidance, to enable comparison of capital adequacy under the two standards and assess consistency in implementation. The PSIFIs data compilation requires the recording of data on stand-alone Islamic banks and windows on separate forms (Form B for stand-alone Islamic banks; Form W for windows), and thus the CARs should be provided separately for full-fledged banks and windows.

CP01a. Capital adequacy ratio (Basel formula)
(FSI equivalent)

367. This PIFI measures the total capital adequacy of IIFS based on the general formula developed by the BCBS. Although the ratio is designed to cover all types of banks (conventional and Islamic), only Islamic banks should be included in calculating the PIFI.

368. The PIFI can be calculated by using the total sector-wide regulatory capital as the numerator, and the sector-wide RWA as the denominator.

$$\text{CAR}_{\text{Basel}} = \frac{\text{Total regulatory capital}}{\text{Risk-weighted assets}_{\text{Basel}}}$$

Where:

Total regulatory capital is sector-wide regulatory capital, after supervisory deductions.

RWA_{Basel} refers to sector-wide RWA as defined by BCBS to cover credit, market and operational risk.

369. The underlying data can be obtained from supervisory data series that cover the consolidated regulatory capital. The series may be based on Basel I, II or III, as applied by the respective jurisdiction.

CP01b. Capital adequacy ratio (IFSB standard formula)
(FSI equivalent)

370. This PIFI measures the total capital adequacy of Islamic banks based on the standard formula defined in IFSB-15: *Revised Capital Adequacy Standard for IIFS*. According to the standard formula, in the absence of any smoothing of the profit pay-outs to IAH by an IIFS, the IIFS is not required to hold regulatory capital in respect of commercial (i.e. credit or market) risks arising from assets funded by PSIA. The rationale from the soundness perspective is that losses experienced by the assets funded by PSIA are fully passed back to the IAH and thus do not directly affect the soundness of the bank. This implies that the RWA funded by such accounts are excluded in respect of commercial risks in calculating the denominator of the CAR, with the exception of RWA for operational risk funded by PSIA, which is borne by the IIFS.

371. The ratio is calculated by using the total regulatory capital as the numerator, and a denominator that equates to the total RWA for credit, market and operational risk, less the RWA funded by

PSIA. This formula implies that 100% of credit and market RWA funded by both restricted and unrestricted PSIA is borne by restricted and unrestricted IAH, while all operational risk arising from the management of these assets is borne by the IIFS.

$$CAR_{IFSBStd} = \frac{\text{Total regulatory capital}}{\begin{array}{c}\text{Total RWA (credit + market risks)} \\ \text{+ RWA (operational risk)} \\ \text{less} \\ \text{RWA funded by PSIA (credit + market risks)}\end{array}}$$

Where:

Total regulatory capital refers to the sector-wide regulatory capital, after regulatory deductions and adjustments.

Risk-weighted assets (IFSB standard formula) refers to the denominator calculated from the sector-wide RWA for credit risk and market risk, plus RWA for operational risk, minus RWA for credit risk and market risk funded by PSIA. The total RWA funded by PSIA is the sum of the RWA funded by restricted and unrestricted PSIA.

372. The numerator and denominator for this PIFI can be derived from supervisory data series covering the consolidated regulatory capital, consolidated RWA for credit and market risks, consolidated RWA for operational risks and consolidated RWA funded by PSIA for credit and market risks of domestically controlled Islamic banking groups in the reporting population.

CP01b. Capital adequacy ratio (IFSB supervisory discretion)
(FSI equivalent)

373. This PIFI measures the capital adequacy of IIFS based on the supervisory discretion formula defined in the IFSB's *Capital Adequacy Standard* (CAS) that reallocates a portion of commercial risk (credit and market risk) funded by PSIA back to the IIFS. "Supervisory discretion" refers to the authority of supervisors to require IIFS to adjust their CAR by increasing the amount of RWA by a percentage (Alpha: α)[25] of the PSIA funding of IAH. This adjustment in effect forces banks to hold more capital in order to keep the measured CAR high.

$$CAR_{IFSB\ SD} = \frac{\text{Total regulatory capital}}{\begin{array}{c}\text{Total RWA (credit + market risks) + RWA (operational risk)} \\ \text{less} \\ \text{RWA funded by restricted PSIA (credit + market risks)} \\ \text{less} \\ (1-\alpha)\ [\text{RWA funded by unrestricted PSIA(credit + market risks)}] \\ \text{less} \\ \alpha\ [\text{RWA funded by PER and IRR of unrestricted PSIA (credit + market risks)}]\end{array}}$$

Where:

Total regulatory capital refers to sector-wide regulatory capital, after supervisory deductions.

Risk-weighted assets (IFSB supervisory discretion) refers to the denominator calculated from sector-wide RWA for credit, market and operational risks minus RWA funded by PSIA for credit risk and market risk less [(1 – α) x RWA funded by unrestricted PSIA for credit and market risks], minus [(α) x RWA funded by PER and IRR of unrestricted PSIA for credit and market risk]. A portion α (as determined by national supervisory authorities) of credit and market RWA

[25] Alpha (α) is the portion of assets funded by unrestricted PSIA held subject (per supervisory discretion) to the IIFS's capital requirements for credit and market risk. α may vary by country and on a case-by-case basis. "Displaced commercial risk" (DCR) refers to the magnitude of risks transferred back to IIFS shareholders in order to cushion the volatility of returns to IAH, who, in principle, should bear all of the investment risks under a *mudārabah* contract. Under a *mudārabah* contract, unrestricted IAH carry most banking risks, such as credit, market and rate of return risks, but may benefit from DCR assumed by the IIFS. The transfer of risks from IAH back to shareholders requires appropriate inclusion of a fraction of the RWA funded by IAH in the denominator of the CAR formula, as specified in the IFSB's *Capital Adequacy Standard*.

funded by PSIA is deemed as borne by IIFS due to the displaced commercial risk. All operational risk arising from the management of these assets is borne by the IIFS.[26]

374. The underlying data for this PIFI can be derived from supervisory data series covering the consolidated regulatory capital, consolidated RWA for credit and market risks, consolidated RWA for operational risks, the consolidated RWA funded by PSIA for credit and market risks of domestically controlled Islamic banking groups in the reporting population, and the RWA funded by PER and IRR of unrestricted PSIA.

CP02a. Tier 1 capital to RWA (Basel formula)
(FSI equivalent)

375. This PIFI measures the ratio of tier 1 capital relative to total RWA based on the general formula developed in Basel III. Tier 1 capital is considered core capital with the highest degree of liquidity and capital certainty. Tier 1 is comprised of two levels of capital (common equity tier 1 and additional tier 1), each of which is defined by the BCBS. Although the ratio is designed to cover all types of banks (conventional and Islamic), for use as a PIFI only Islamic banks and Islamic windows should be included. The ratio can be calculated by using the tier 1 capital as numerator and sector-wide RWA as the denominator.

$$\text{CART1}_{\text{Basel}} = \frac{\text{Tier 1 capital}}{\text{Risk-weighted assets}_{\text{Basel}}}$$

Where:

Tier 1 capital refers to the total tier 1 regulatory capital, including common equity tier 1 and additional tier 1 capital, as defined by Basel after supervisory deductions.

RWA_{Basel} refers to sector-wide RWA as defined by BCBS to cover credit, market and operational risk.

376. The data series for the numerator and denominator for this PIFI should be drawn from supervisory data series. The series may be based on Basel I, II or III rules as applied by the respective jurisdiction.

CP02b. Tier 1 capital to RWA (IFSB standard formula)
(FSI equivalent)

377. This indicator parallels the tier 1 capital ratio (Basel regulatory tier 1 capital) above, but uses the IFSB standard definition in the numerator. Tier 1 capital is considered core capital, with the highest degree of liquidity and capital certainty.

378. This PIFI is calculated by the tier 1 regulatory capital as defined by IFSB-15 excluding supervisory deductions as the numerator and the RWA for credit, market and operational risks less the RWA funded by PSIA for credit and market risks as the numerator.

[26] IFSB-15: *Revised Capital Adequacy Standard for IIFS* and Guidance Note 4 relating to the capital adequacy standard, available at www.ifsb.org

$$\text{CART1}_{\text{IFSB Std}} = \frac{\text{Tier 1 capital}}{\begin{array}{c}\text{Total RWA (credit + market risks)+ RWA (operational risk)}\\ \text{less}\\ \text{RWA funded by PSIA(credit + market risks)}\end{array}}$$

Where:

Tier 1 capital refers to the total tier 1 regulatory capital, including common equity tier 1 and additional tier 1 capital, as defined by IFSB after supervisory deductions.

RWA_{std} refers to the sector-wide RWA for credit risk and market risk, plus RWA for operational risks, minus RWA for credit risk and market risk funded by PSIA. The total RWA funded by PSIA is the sum of the RWA funded by restricted and unrestricted PSIA.

379. The underlying data to calculate this PIFI can be derived from supervisory data series covering the consolidated tier 1 regulatory capital, consolidated RWA for credit and market risks, consolidated RWA for operational risks, and consolidated RWA funded by PSIA for credit and market risks of domestically controlled Islamic banking groups in the reporting population.

CP02b. Tier 1 capital to RWA (supervisory discretion formula)
(FSI equivalent)

380. This indicator parallels the Basel regulatory tier 1 capital, but, as in the above standard formula, uses the IFSB definition of regulatory tier 1 capital while an additional proportion of the (risk-weighted) assets funded by UPSIA, denoted by the Greek letter "alpha", is required to be included in the denominator of the CAR, the permissible value of alpha being subject to supervisory discretion.

381. This PIFI is calculated by the tier 1 regulatory capital (highest quality of capital) as defined by IFSB-15 less supervisory deductions as the numerator and the RWA for credit, market and operational risks less the RWA funded by PSIA for credit and market risks as the numerator.

$$\text{CART1}_{\text{IFSB SD}} = \frac{\text{Tier 1 capital}}{\begin{array}{c}\text{Total RWA (credit + market risks) + RWA (operational risk)}\\ \text{less}\\ \text{RWA funded by restricted PSIA (credit + market risks)}\\ \text{less}\\ (1-\alpha)\text{ [RWA funded by unrestricted PSIA (credit + market risks)]}\\ \text{less}\\ \alpha\text{ [RWA funded by PER and IRR of unrestricted PSIA}\\ \text{(credit + market risks)]}\end{array}}$$

Where:

Tier 1 capital refers to total tier 1 regulatory capital, including common equity tier 1 and additional tier 1 capital, as defined by IFSB after supervisory deductions.

RWA_{SD} refers to sector-wide RWA for credit, market and operational risks minus RWA funded by PSIA for credit risk and market risks less [(1 – α) RWA funded by unrestricted PSIA for credit and market risks, minus [(α) RWA funded by PER and IRR of unrestricted PSIA for credit and market risk]. A portion α (as determined by national supervisory authorities) of credit and market RWA funded by PSIA is deemed as borne by IIFS due to the displaced commercial risk. All operational risk arising from the management of these assets is borne by the IIFS.

382. The underlying data for this PIFI can be derived from supervisory data series covering the consolidated regulatory capital, consolidated RWA for credit and market risks, consolidated RWA for operational risks, the consolidated RWA funded by restricted and unrestricted PSIA for credit and market risks of domestically controlled Islamic banking groups in the reporting population, and the RWA funded by PER and IRR of unrestricted PSIA.

CP03a. Common equity tier 1 capital to RWA (Basel formula)
(FSI equivalent)

383. This indicator parallels the total capital ratio (Basel definition) but uses common equity tier 1 capital as defined in Basel III as the numerator. CET1 is the most stringent definition of core capital that has the highest degree of liquidity and capital certainty. This indicator should be completed only by countries that have adopted Basel III. Basel III places emphasis on CET1, which is captured in the CET1 capital to RWA ratio. Under Basel III, some deductions apply specifically to CET1 and others to total capital. Deductions applicable to CET1 include goodwill, deferred tax assets, intangibles, some holdings in unconsolidated financial institutions, shortfall in provisions for expected losses and defined benefit pension fund investments in banks' own shares. In addition, Basel III makes a number of other adjustments to CET1 capital. This PIFI is calculated by the CET capital as defined by Basel III after adjustments and deductions applicable to CET1 capital as the numerator and sector-wide RWA for credit, market and operational risk as the denominator.

$$\text{CET1}_{\text{Basel}} = \frac{\text{Common equity tier 1 capital}}{\text{Risk-weighted assets}_{\text{Basel}}}$$

Where:

$CET1_{Basel}$ refers to common equity tier 1 regulatory capital, as defined in Basel III after deductions and adjustments applicable to CET1 capital.

RWA_{Basel} refers to sector-wide RWA as defined by BCBS to cover credit, market and operational risk.

384. The data series for the numerator and denominator for this PIFI should be drawn from supervisory data series. The series may be based on Basel III definitions as applied by the respective jurisdiction.

CP03b. Common equity tier 1 capital to RWA (IFSB standard formula)
(FSI equivalent)

385. This indicator parallels the total capital ratio (standard definition) above, but uses common equity tier 1 capital as defined in Basel III as the numerator. CET1 is a more stringent definition of core capital that has the highest degree of liquidity and capital certainty. This indicator should be completed only by countries that have adopted IFSB-15.

386. To calculate this PIFI, the numerator and denominator should be drawn from supervisory data using IFSB-15 definitions. The PIFI is computed using CET1 capital according to the IFSB-15 definition as the numerator, and a denominator consisting of the total RWA (for credit, market and operational risk), less the RWA funded by PSIA (for credit and market risks).

$$\text{CET1}_{\text{IFSB Std}} = \frac{\text{Common equity tier 1 capital}}{\begin{array}{c}\text{Total RWA (credit + market risks) + RWA (operational risk)} \\ \text{less} \\ \text{RWA funded by PSIA (credit + market risks)}\end{array}}$$

Where:

Common equity tier 1 capital refers to common equity tier 1 regulatory capital, as defined in IFSB-15, after supervisory deductions and adjustments applicable to CET1.

RWA_{std} refers to the sector-wide RWA for credit risk and market risk, plus RWA for operational risks, minus RWA for credit risk and market risk funded by PSIA. The total RWA funded by PSIA is the sum of the RWA funded by restricted and unrestricted PSIA.

387. The underlying data to calculate this PIFI can be derived from supervisory data series covering the consolidated regulatory capital, consolidated RWA for credit and market risks, consolidated RWA for operational risks, and consolidated RWA funded by PSIA for credit and market risks of domestically controlled Islamic banking groups in the reporting population.

CP03b. CET 1 capital to RWA (IFSB supervisory discretion formula)
(*FSI equivalent)*

388. This indicator parallels the total capital ratio (IFSB supervisory definition) above, but uses common equity tier 1 capital in the numerator as defined in the IFSB standard. This indicator should be completed only by countries that have adopted IFSB-15.

389. To calculate this PIFI, the numerator and denominator should be drawn from supervisory data using IFSB-15 definitions. The PIFI can be computed using CET1 capital according to the IFSB-15 definition as the numerator, and a denominator consisting of the total RWA (for credit, market and operational risk), less RWA funded by restricted PSIA (for credit and market risks), less a proportion of RWA funded by unrestricted PSIA (credit and market risks), less a portion of RWA (as denoted by alpha) funded by PER and IRR of unrestricted PSIA (credit and market risks).

$$\text{CET1}_{\text{IFSB SD}} = \frac{\text{Common equity tier 1 capital}}{\begin{array}{c}\text{Total RWA (credit + market risks) + RWA (operational risk)} \\ \text{less} \\ \text{RWA funded by restricted PSIA (credit + market risks)} \\ \text{less} \\ (1-\alpha)\ [\text{RWA funded by unrestricted PSIA(credit + market risks)}] \\ \text{less} \\ \alpha\ [\text{RWA funded by PER and} \\ \text{IRR of unrestricted PSIA (credit + market risks)}]\end{array}}$$

Where:

Common equity tier 1 capital refers to common equity tier 1 regulatory capital, as defined in the IFSB standard, after supervisory deductions and adjustments applicable to CET1.

RWA_{SD} refers to sector-wide RWA for credit, market and operational risks minus RWA funded by PSIA for credit risk and market risks less [(1 – α) x RWA funded by unrestricted PSIA for credit and market risks], minus [(α) RWA funded by PER and IRR of unrestricted PSIA for credit and market risk]. A portion α (as determined by national supervisory authorities) of credit and market RWA funded by PSIA is deemed as borne by IIFS due to the displaced commercial risk. All operational risk arising from the management of these assets is borne by the IIFS.

6.1.2 Asset Quality

390. Asset quality is a measure of the strength of the financial assets held by IIFS that contribute to the capacity of the Islamic banking industry to sustain its operations and to contribute further to economic development. The most common measure of asset quality is the *gross non-performing financing ratio*, which describes the proportion of the non-performing assets to the total assets. However, in order to arrive at an accurate picture of asset quality, the classifying methodology among the reporting countries should be standardised. The analysis of asset quality can also be linked to the capital of the bank by using the ratio of *net non-performing financing to capital*, *which factors in the amount of provisions held against non-performing assets*. This indicator calculates the funds readily available to absorb the loss generated in the banking operations.

CP04. Gross non-performing financing (NPF) ratio
(FSI equivalent)

391. This PIFI is a ratio of non-performing financing to total financing. It measures the asset quality of the bank's financing portfolio. An increase in this ratio may be an indication of the deterioration of the quality of the financing portfolio.

392. This ratio can be calculated by taking the gross non-performing financing as the numerator and the total value of the outstanding Sharī'ah-compliant financing portfolio (including NPFs and before deduction of specific provisions for NPF) as the denominator. The underlying data for the numerator and denominator can come either from supervisory sources or financial balance sheets.

$$\text{Gross NPF ratio} = \frac{\text{Gross NPF}}{\text{Total financing}}$$

Where:

Gross NPF refers to the value of gross non-performing financing without deducting provisions or direct reductions for impairment. Metadata should indicate whether the data have been adjusted for direct reductions for impairment.

Total financing refers to the total value of outstanding Sharī`ah-compliant financing, including NPF and before deduction of specific provisions for non-performing financing.

CP05. Net non-performing financing (net NPF) to capital
(FSI equivalent)

393. This PIFI is the ratio of net non-performing financing to capital, which examines the potential impact on capital of non-performing financing net of provisions (or specific provision) and direct impairment deductions.

394. This PIFI is calculated by taking the value of non-performing financing less the value of specific financing provisions as the numerator and core capital as the denominator. The data can be taken from supervisory balance sheets for IIFS.

$$\text{Net NPF to capital} = \frac{\text{Net NPF}}{\text{Total regulatory capital}}$$

Where:

Net NPF refers to the value of gross NPF net of any provisions (specific provision) or direct reductions for impairment. A negative value indicates that specific loss provisions are greater than gross non-performing financing.

Total regulatory capital refers to the total regulatory capital, as defined in FS46, but flexibility exists to use balance sheet capital under the cross-border consolidation because foreign-owned branches might not hold regulatory capital.

CP06. Provisions for gross non-performing financing
(FSI equivalent)

395. This PIFI looks at the amount of provisions that IIFS have set aside to cover potential losses on non-performing financing.

396. It can be calculated by taking the provisions for non-performing financing as the numerator and total gross non-performing financing as the denominator. The underlying data series can be sourced from supervisory balance sheets of IIFS.

$$\text{Provisions for NPF} = \frac{\text{Provisions for NPF}}{\text{Gross NPF}}$$

Where:

Provisions for NPF refers to the total specific loss provisions on financings.

Gross NPF refers to the value of Sharī`ah-compliant financing, including NPF and before deduction of specific provisions.

6.1.3 Earnings

397. Earning are a basic measure of the condition of IIFS. Stable adequate earnings allow IIFSs to expand to meet market opportunities, build capital and buffer against shocks. Unprofitable or low-profit financial institutions risk insolvency and cannot build capital as a buffer against shocks. On the other hand, unusually high profitability could be a sign of excessive risk taking. The level of profitability is of concern to shareholders and IAH in order to bolster the capital certainty of the IIFS and provide income flows to both shareholders and IAH.

398. The most commonly used measure of profitability is *return on assets*, which indicates the capability of every unit of assets to generate profit. The *return on equity* indicates the level of profit gained by the shareholders for every unit of equity.

399. The ratios should be interpreted with caution, since a high ratio could indicate either high profitability or low capitalisation, and a low ratio can mean low profitability as well as high capitalisation. Other indicators of profitability include the *net profit margin*, indicating the percentage of net income earned from financing, and the *cost-to-income ratio,* indicating the level of operational efficiency of the banks.

CP07. Return on assets
(FSI equivalent)

400. Return on assets (ROA) measures the efficiency of use of assets. The ratio before deduction of ***zakāh*** and taxes provides a measure of operational earnings that is not affected by the major differences in tax regimes between countries. It is a standard measure used for comparison of banking systems between countries.

401. The ratio can be calculated by taking the annualised net income before extraordinary items, *zakat* and taxes as the numerator, and the average total assets as the denominator.

$$\text{ROA} = \frac{\text{Net income}}{\text{Total assets}}$$

Where:

Net income refers to net income before extraordinary items, zakat and taxes. For quarterly reports, annualised data should be income flows during each quarter multiplied by four.

Total assets refers to total financial and non-financial assets corresponding to the accounting period for income. For annual data, an average of beginning-of-year and end-of-year assets should be used; if quarterly assets data are available, the average of quarterly data is preferred. For quarterly data, the preferred measure is the average of beginning-of-quarter and end-of-quarter data, but end-of-quarter data are acceptable.

402. The underlying data for this PIFI may be compiled from supervisory and financial accounting sources or monetary and financial statistics. The inclusion of gains and losses on financial instruments valued at market or fair value in supervisory and financial accounting is preferred. Gains and losses on the sale of an associate or subsidiary are also excluded from income.

CP08. Return on equity

(FSI equivalent)

403. Return on equity (ROE) is a measure of the return on shareholders' investment. It is a standard measure used for comparison of banking systems between countries.

404. The ratio can be calculated by taking the net income before extraordinary items, *zakat* and taxes as the numerator, and total equity as the denominator. The underlying data for the numerator and denominator can be compiled from supervisory and financial accounting sources or monetary and financial statistics. Gains and losses on financial instruments valued at market or fair value in supervisory and financial accounting are preferred. Gains and losses on the sale of an associate or subsidiary are excluded from income.

$$\text{ROE} = \frac{\text{Net income}}{\text{Equity}}$$

Where:

Net income refers to net income before extraordinary items, zakat and taxes. When available, quarterly net income data should be used. For quarterly reports, annualised data should be income flows during each quarter multiplied by four.

Equity refers to total financial and non-financial equity, including parent's equity in Islamic windows, corresponding to the accounting period for income. When available, quarterly net income data should be used. Alternatively, for annual data, an average of beginning-of-year and end-of-year assets should be used; if quarterly data are available, the average of quarterly data is preferred. For quarterly data, the preferred measure is the average of beginning-of-quarter and end-of-quarter data, but the end-of-quarter data are acceptable.

CP09. Net profit margin

405. This is a measure of net returns out of income earned. It is a standard measure of the health of a financial system by indicating the ability of banks to attract new capital, build capital and grow.

This PIFI can be calculated by taking net income as defined below as the numerator, and gross income as defined below as the denominator.

$$\text{Net profit margin} = \frac{\text{Net income}}{\text{Gross income}}$$

Where:

Net income refers to the net income before extraordinary items, zakat and taxes. When available, quarterly net income data should be used. For quarterly reports, annualised data should be income flows during each quarter multiplied by four.

Gross income refers to the value of DFS item gross income (FS08), which is the sum of net financing and investment income (FS01) and other income (FS04 through FS07). For IFIs, this is equal to net revenue from jointly funded assets (total revenues generated from mobilisation of the assets less provisions for accrued interest less income distributed to IAH) plus other income.

When available, quarterly net income data should be used; annualised data should be income flows during each quarter multiplied by four.

406. The underlying data can be compiled from supervisory and financial accounting sources or monetary and financial statistics. Gains and losses on financial instruments valued at market or fair value in supervisory and financial accounting are preferred. Gains and losses on the sale of an associate or subsidiary are excluded from income.

CP10. Cost to income

407. This PIFI measures non-financing, non-investment-related expenses (such as personnel and administrative expenses) to gross income.

408. The ratio can be calculated from total operating expenses (FS09) as the numerator, and gross income (FS08) as the denominator. The Guide encourages compiling quarterly ratios using annualised data for operating costs and gross income. The underlying data series may be compiled from either supervisory or financial accounting sources.

$$\text{Cost to income} = \frac{\text{Operating costs}}{\text{Gross income}}$$

Where:

Operating costs refers to total operating expenses, including personnel, administrative costs, rent, purchases of goods and services, depreciation, and other provisions, and all other non-financing overhead expenses.

Gross income refers to the value of gross income, including net income from Sharī`ah-compliant financing and investment generated from jointly funded assets plus other non-financing-related income. When available, quarterly net income data should be used; annualised data should be income flows during each quarter multiplied by four.

Box C: Recommended Methods for Annualising Quarterly Data for Earnings Indicators

While many PSIFIs are ratios of series that are stock series or positions at specific points of time, some earnings and revenue indicators are flow variables. Where the calculation of PIFI ratios uses mixed flow and stock data in the numerator and denominator, the Guide recommends the annualisation of quarterly data.

The annualisation methods used for PSIFIs and FSIs differ – the same raw data can result in different quarterly indicator patterns depending on the method used. Users should be aware of such differences when comparing PSIFIs and FSI; however, between the two methods the PSIFI method is preferred because it better retains the underlying economic signals embedded in the quarterly data.

Annualised Method

The recommended method is designed to produce estimates of quarterly data that reflect the economic flows or stocks that apply directly to the reference quarter. The intent is to produce pure quarterly time series that provide signals that closely correspond to specific economic events or policy shifts occurring in the reference quarter. Specific quarterly data on macroprudential conditions are relevant for analysing the most current macroprudential conditions, providing information useful for policy purposes, and providing a basis for research on how macroprudential conditions relate to the rest of the economy. The quarterly data also reveal seasonal patterns and movable holiday effects, such as for Ramadan.

Recommended Methods for PSIFIs

i. *When both the numerator and the denominator are either flows or stocks*

If both the numerator and the denominator use flows data (operating expenses, income, etc.), the data should be reported for that particular quarter. If the numerator and denominator consist of positions data (stock variables), these should report end-of-quarter data. For example, the tier 1 capital adequacy ratio should use end-of-quarter tier 1 capital data (numerator) and end-of-quarter RWA (denominator).

ii. *When the numerator and denominator use mixed flow and stock data (such as ROA or ROE)*[27]

In this case, flows data should report data for the reference quarter (for example, income earned during the third quarter) multiplied by four to present it on an annual rate basis.

$$Q1annualised = Q1quarterly \times 4$$
$$Q2annualised = Q2quarterly \times 4$$
$$Q3annualised = Q3quarterly \times 4$$
$$Q4annualised = Q4quarterly \times 4$$

iii. Stock data should report the average data for the quarter. For example, third-quarter assets is calculated as (assets at end of Q2 + assets at the end of Q3) / 2]

$$Q1averaged = \frac{Q4 + Q1}{2}$$
$$Q2averaged = \frac{Q1 + Q2}{2}$$
$$Q3averaged = \frac{Q2 + Q3}{2}$$
$$Q4averaged = \frac{Q3 + Q4}{2}$$

iv. This method produces numerators and denominators that correspond directly to flows occurring in the reference quarter and to average stocks during the quarter that helped generate the flows during the quarter.

[27] For example, ROE uses flow data for the numerator and stock data for the denominator.

v. By implication, fourth-quarter flows data are not identical to the full-year data. That is, the observation for Q4 covers only data for that quarter and does not equal the annual data series.[28]

vi. In the case of annual data, annual flows data should be calculated as total flows for the year, whereas stock data can be either the year-end stock or the average of stock positions during the year (either average of end-of-year data for the previous year and the current year, or average of end-of-year data for the previous year and for each of the four quarters of the current year.)

Comparison to IMF Method

The IMF recommends the annualised cumulative method for FSIs that have both flows and stocks data, such as ROA and ROE.

For example, for income as the numerator, the IMF method takes cumulative flows data for x quarters each year, divides by x, then multiplies by 4.

The denominator (consisting of stock data) takes an average of stocks during the comparable periods including the stock at the end of the previous year.

The IMF method is appropriate for data reported during the year on a cumulative financial accounting basis (which is a common practice), then translates the cumulative data into annual rate statistics.

The IMF method dampens the fluctuations in the data, which can result in the loss of economic signals embedded in the data. It can also distort the underlying pattern in the data, since earlier periods of each year are less smoothed than the later periods. The method can also result in the loss of information in several ways, including: loss of seasonal and holiday effects; obscuring relationships between quarterly movements of FSIs and other macroeconomic series which can impair research and policy analysis; and irregular spikes and unusual economic events in a specific quarter are averaged into data throughout the year.

6.1.4 Leverage

409. Leverage is the amount of total economic resources controlled by an enterprise relative to its own capital. IIFS can increase their resources by accepting deposits or investment accounts, issuing securities or incurring other liabilities. The resources received can be used to extend financing and make investments. Adequate amounts of capital are viewed as needed to cover the risks inherent in financing provided.

A traditional measure of leverage drawn from standard balance sheet information is the ratio of capital to assets. Core Prudential Indicator CP11 “Capital to assets” covers the traditional leverage ratio.

410. The major innovation of the Basel I standard was to modify the traditional ratio to set a minimum capital adequacy ratio with the numerator based on a new measure of “supervisory capital” and to use “risk-weighted assets” for the denominator that weights different types of assets by their perceived riskiness. The Basel I ratio has been incorporated into the Core Prudential Indicator CP01 “Capital adequacy ratio”, which has evolved over time under the Basel II and Basel III regimes.

411. However, with the onset of the Global Financial Crisis the view emerged that a possible contributing factor could have been that banks held insufficient capital relative to their assets and their associated risks, which led to the inclusion in Basel III of standards for adequate leverage. The BCBS reviewed the CAR to create a new, more rigorous definition of capital and possibly to revise the RWA calculation. A new measure of “Exposure” was developed for use as the denominator. Exposure is a much more comprehensive measure than RWA that encompasses a wide range of possible on-balance-sheet and off-balance sheet risks to a bank. A new core prudential indicator, CP12 “Leverage (regulatory definition)”, is based on the new “Exposure” ratio.

[28] For example, annual data do not have seasonal variation, but fourth-quarter data could have seasonal variation.

CP11. Capital to assets
(FSI equivalent)

412. This PIFI provides an indication of financial leverage of the Islamic banking sector (based on information available from standard balance sheets) that shows the extent to which assets are funded by other than the IIFS's own funds. This ratio provides a non-RWA measure of capital adequacy for banks, based on assets as reported on financial balance sheets. The numerator is selected to be tier 1 capital, which is the highest class of capital under supervisory standards.

413. The ratio can be calculated by taking tier 1 supervisory data for the numerator, and balance sheet data compiled for supervisory purposes for total assets as the denominator. The Guide recommends the use of the definition of tier 1 capital as set out in IFSB-15 or in the Basel Guidelines. If needed, published accounts might be used as a proxy for the preferred measure, but capital under financial accounting standards will often be based on general accounting frameworks (IFRS or national GAAP) that use different consolidations from supervisory consolidations.

$$\text{Capital to assets} = \frac{\text{Tier 1 capital}}{\text{Total assets}}$$

Where:

Tier 1 capital refers to tier 1 regulatory capital as defined in IFSB-15.

Total assets: Parallel to the numerator, the denominator should come from total assets data from the financial balance sheet used for supervisory purposes.

CP12. Leverage (regulatory definition)
(FSI equivalent)

414. This ratio, which is an alternative to the IFSB risk-weighted capital adequacy ratios, uses supervisory-based capital divided by a non-RWA measure of on- and off-balance sheet exposure.

415. This PIFI can be calculated taking tier 1 capital as the numerator, and exposure (defined below) as the denominator.

$$\text{Leverage} = \frac{\text{Tier 1 capital}}{\text{Exposure}}$$

Where:

Tier 1 capital refers to regulatory tier 1 capital as defined in CP02.

Exposure: A broad concept of exposure equal to on-balance-sheet assets adjusted for (1) investments in banks, takāful or commercial entities consolidated for accounting purposes but outside the regulatory consolidation; (2) any on-balance-sheet fiduciary assets excluded from the leverage ratio; (3) financial derivatives; (4) "securities financing transactions" (repos and similar secured lending); and (5) on-balance-sheet equivalent of off-balance sheet items. Detailed descriptions of the adjustments are in section 2.1.5 in IFSB-15 on capital adequacy.

The underlying data can be compiled from supervisory series. The total exposure data and adjustments are already required to be reported to supervisors. Compilers are encouraged to compile and disseminate the leverage ratio for the Islamic banking sector and the adjustments.

6.1.5 Liquidity

416. Liquidity indicates the capability of the industry to meet its short-term financial obligations. The PSIFIs cover the liquidity of IIFS by two indicators: the liquid asset ratio and the liquid asset to short-term liability ratio. The liquid asset ratio describes the composition of the asset in terms of its capability to quickly make use of its more liquid assets to meet its needs. The liquid asset to short-term liability ratio indicates whether there is a structural liquidity gap in the industry. It is important to monitor liquidity indicators, because financial institutions that are initially solvent may be driven towards closure because of poor management of short-term liquidity.

CP13. Liquid assets ratio
(FSI equivalent)

417. This PIFI provides an indication of the liquidity available to meet expected and unexpected demands for cash. It can be calculated by taking as the numerator liquid assets (as defined below) and total assets of the IIFS as the denominator.

$$\text{Liquid assets ratio} = \frac{\text{Liquid assets}}{\text{Total assets}}$$

Where:

Liquid assets refers to broad liquid assets whose value is quickly available with little or no cost in mobilising the funds. Distinguishing between domestic and foreign-currency denominated liquid assets is useful because the availability and value of foreign-currency denominated assets can be uncertain during periods of financial stress. Private-sector securities designated as less than investment grade should be excluded from liquid assets.

Total assets refers to the value of all financial and non-financial assets from the financial balance sheet used for supervisory purposes.

418. The data could be drawn from supervisory, accounting or monetary statistics sources. Some supplementary information on the liquidity of instruments presented in these sources might be needed.

CP14. Liquid assets to short-term liabilities
(FSI equivalent)

419. This PIFI captures information on the adequacy of and potential liquidity mismatch between readily available assets and short-term liabilities. It provides an indication of the extent to which IIFS could meet short-term withdrawals of funds without facing liquidity problems, and could provide information on potential "roll-over" risk, which is the danger that new funding will be unavailable when existing short-term funding expires.

420. It can be calculated by taking liquid assets as the numerator and short-term liabilities as the denominator.

$$\text{Liquid assets to short-term liabilities} = \frac{\text{Liquid assets}}{\text{Short-term liabilities}}$$

Where:

Liquid assets refers to the value of core liquid assets as described in the liquid assets ratio above (paragraph 416).

Short-term liabilities refers to current liabilities which is bank's financial obligations which are expected to be paid within a year.

421. The data potentially could be drawn from supervisory, accounting or monetary statistics sources. Some supplementary information on the liquidity of instruments presented in these sources might be needed.

CP15. Liquidity coverage ratio
(FSI equivalent)

422. The liquidity coverage ratio (LCR) indicator corresponds to a new global liquidity requirement developed by the BCBS to address problems created by the global liquidity freeze during the financial crisis. In the LCR, the IIFS must hold unencumbered high-quality liquid assets against the possibility of cash outflows during a one-month period of financial stress. This indicator was introduced in January 2015. It can be calculated by taking the stock of Sharī'ah-compliant HQLA as the numerator and the total net cash outflows as the denominator.

423. The underlying data series for the numerator and denominator can be compiled from the supervisory data compiled in accordance with Basel III or IFSB Guidance Note 6 requirements.

$$\text{LCR} = \left(\frac{\text{Stock of Sharī`ah-compliant high-quality liquid assets}}{\text{Total net cash outflows over the next 30 calendar days}}\right) \geq 100\%$$

Where:

Numerator: The BCBS has provided detailed information on the requirements for assets to qualify for use in the LCR. In principle, only Sharī'ah-compliant assets should be used as HQLA for Islamic financial institutions. These data must be reported to supervisors and thus will be readily available for use in this indicator.

Denominator: Total expected cash outflows less expected cash inflows over the next 30 days under specified financial distress conditions.[29]

CP16. Net stable funding ratio
(FSI equivalent)

424. The net stable funding ratio (NSFR) is the ratio of the amount of available stable funding (ASF) to the amount of required stable funding (RSF), which is intended to encourage banks to develop access to medium- and long-term funding. The ratio must be greater than 100%. Stable funding is defined as the portion of those types and amounts of equity and liability financing expected to be reliable sources of funds over a one-year time horizon under conditions of extended stress. The NSFR is the portion of capital and liabilities expected to be available over a one-year period. The amount of such stable funding required of a specific institution is a function of the liquidity characteristics and residual maturities of the various assets held, as well as off-balance-sheet exposures.

$$\text{NSFR} = \left(\frac{\text{Available stable funding}}{\text{Required stable funding}}\right) \geq 100\%$$

Where:

Available stable funding: ASF is composed of the total amount of an IIFS's capital, UPSIA with a maturity equal to or greater than one year, liabilities or sukūk issued with effective or remaining maturities of one year or greater, and the portion of "stable" non-maturity deposits and/or term deposits or UPSIA with maturities of less than one year expected to stay with the IIFS for an extended period in an idiosyncratic stress event.

Required stable funding: RSF is measured using supervisory assumptions about the broad characteristics of the liquidity risk profiles of assets and off-balance-sheet exposures. An RSF

[29] *Formulas are provided by the BCBS to measure the speed of expected outflows and inflows. For details on the IFSB standard, see Guidance Note 6, "Quantitative Measures for Liquidity Risk Management for IIFS", available at www.ifsb.org.*

factor is assigned to each asset type, with assets deemed more liquid receiving a lower RSF factor.[30]

425. The data series for the numerator and denominator can be obtained from supervisory data compiled in accordance with Basel III requirements.

6.1.6 Sensitivity to Risk

CP17. Net foreign exchange open position to capital
(FSI equivalent)

426. This PIFI covers exchange rate risk exposure of IIFS relative to their capital. It measures the mismatch (open position) of foreign currency asset and liability positions to assess the potential vulnerability of the IIFS's capital position to exchange rate movements. Exchange rate volatility can affect both asset and liability market values, and unmatched positions expose the IIFS to valuation gains or losses that affect the capital position of the IIFS.

427. It can be calculated by taking the net foreign currency open positions as the numerator and the total regulatory capital as the denominator.

$$\text{Net foreign exchange open position to capital} = \frac{\text{Net foreign currency open position}}{\text{Total regulatory capital}}$$

Where:

Net foreign currency open positions: The numerator is the value of all foreign currency positions (assets less liabilities, including the net market value equivalent of derivative, contingent and off-balance-sheet positions), applying the market spot exchange rate as of the reporting date. The BCBS market risk framework defines the net open position as the sum of the net spot position for all assets and liabilities (including accrued interest and expenses); net forward position in forwards, futures and swaps; guarantees expected to be exercised, net hedged but not yet accrued future income and expenses, and any other profit or loss position.

Total regulatory capital refers to the regulatory capital after supervisory deductions.

428. The data can be sourced from supervisory data as per the BCBS market risk framework.

CP18. Large exposures to capital
(FSI equivalent)

429. This PIFI covers the risk to IIFS resulting from exposure to a few large financing positions because their default can severely affect IIFS capital. This indicator helps cover the vulnerabilities arising from concentration of lending risk to large individual customers or groups – for example, due to project and real estate financing. Large exposures to both domestic and foreign borrowers are included.

430. The IFSB has accepted the BCBS definition of large exposures (and the threshold for reporting) as 10% of regulatory capital. It is possible for the value of large exposures to exceed total regulatory capital. Even though very big individual large exposures might be prohibited, an IIFS could have many exposures that exceed the reporting thresholds of regulatory capital and thus in aggregate report high values for this indicator.

431. The ratio can be calculated by taking sum of all exposures as defined below as the numerator and the value of tier 1 capital as the denominator.

[30] For details in the IFSB standard, please see Guidance Note 6, "Quantitative Measures for Liquidity Risk Management for IIFS", available at www.ifsb.org.

$$\text{Large exposures to capital} = \frac{\text{Sum of all exposures}}{\text{Tier 1 capital}}$$

Where:

Value of large exposures refers to the value of individual large exposures in which smaller exposures to closely connected counterparties should be treated as single exposures. The BCBS defines large exposures (and the threshold for reporting) as 10% of regulatory capital, but balance sheet capital may alternatively be used. Large exposures to foreign borrowers are also included; total exposures to a parent and all foreign subsidiaries and branches should be treated as a single exposure.[31]

Total regulatory capital refers to regulatory capital as defined in CP01. Regulatory capital or balance sheet capital can be used to match the measure in the numerator.

432. The underlying series can be obtained from supervisory data or requests for supplemental information on individual large exposures of IIFS.

CP19. Growth of financing to the private sector
(FSI equivalent)

433. This ratio is an indication of the annual rate of growth of financing to the private sector. Extremely rapid growth of financing to the private sector has frequently preceded episodes of financial instability. The data for the numerator and denominator can be obtained from supervisory or monetary statistics data.

$$\text{Growth of financing to private sector} = \frac{\text{Change in total financing at end of current period}}{\text{Total financing at end of same period in previous year}}$$

Where:

Numerator: Refers to total financing in current period provided by IIFS to non-financial corporations and households.

Denominator: Refers to total financing one year earlier provided by IIFS to non-financial corporations and households. If data are available a full year earlier, the most recent year-end data should be used and growth to the current period is estimated at an annualised rate.

6.2 Specification of Additional Prudential Islamic Financial Indicators (Additional PIFIs)

434. Additional PIFIs provide further analysis of a number of indicators, including ratios of income distributed to IAH, foreign-currency denominated funding and financing ratios, *sukūk* holdings to capital, as well as measures of asset quality in relation to the economic sectors and types of contracts utilised by the IIFS. These indicators are intended to further analyse the concentration of the banks' exposures, in terms of the types of contracts and economic sectors.

AD01. Income distributed to IAH out of total income from assets funded by PSIA

435. This indicator measures the amount of profit distributed to the IAH out of gross income from assets of IIFS funded by PSIA. Competitive and consistent remuneration of IAH helps to ensure

[31] Supervisory framework for measuring and controlling large exposures, April 2014, Bank for International Settlements.

steady deposit funding in the future. The ratio can be calculated by taking the amount of income distributed to IAH after adjustments for PER and IRR divided by gross financing and investment income from assets funded by PSIA (FS01).

$$\text{Percentage income distributed} = \frac{\text{Income distributed to IAH}}{\text{Gross financing and investment income from assets funded by PSIA}}$$

Where:

Income distributed refers to the amount of distributions to the IAH, after adjusting income for any flows into or out of PER and IRR.

Total income from assets funded by PSIA refers to the value of total income from Sharī`ah-compliant financing and investment of IIFS in PSIA activities.

436. The data can be compiled from supervisory data on total income distributed to IAH and total income from assets funded by PSIA.

AD02. Total off-balance-sheet items to total assets

437. It is a measure of the fair value of total off-balance-sheet items relative to total on-balance-sheet assets. This indicator examines whether on-balance-sheet resources are sufficient to deal with the risks and volatility that might affect off-balance-sheet positions. The comparison to on-balance-sheet assets (rather than to capital) is made because off-balance-sheet positions in financial derivatives could be hedges to non-derivative on-balance-sheet positions.

438. The ratio can be calculated by taking total off-balance-sheet positions as the numerator and total assets as the denominator.

$$\text{Percentage of off-balance-sheet positions} = \frac{\text{Off-balance-sheet items}}{\text{Total assets}}$$

Where:

Off-balance-sheet positions refers to the net fair value of off-balance-sheet items (items in a positive value position less items in a negative value position).

Total assets refers to the value of total assets (financial and non-financial).

439. The data can be sourced from supervisory or financial accounting data on off-balance-sheet positions on a fair value basis.

AD03. Foreign-currency-denominated funding to total funding (excluding interbank)

440. This PIFI measures total foreign currency-denominated funding relative to total *Sharī`ah*-compliant funding. Potential volatility inherent in foreign currency funding can affect IIFS's payment obligations and returns to IAH.

441. The ratio can be calculated by taking the amount of foreign-currency denominated funding as the numerator and the total funding of the IIFS as the denominator.

$$\text{Foreign-currency funding ratio} = \frac{\text{Foreign-currency funding}}{\text{Total funding}}$$

Where:

Foreign-currency funding refers to the total amount of foreign-currency denominated funding.

*Total funding refers to the amount of funds from unrestricted PSIA, Sharī`ah-compliant savings, and current accounts. (*The denominator is calculated and defined differently by countries in the current reporting..)

The data for the numerator and denominator can be compiled from supervisory data.

AD04. Foreign currency denominated financing to total financing (excluding interbank)

442. This PIFI measures the total amount of foreign-currency denominated financing to total financing. Potential volatility inherent in foreign-currency financing can affect returns to IIFS and IAH.
443. The ratio may be calculated by dividing foreign-currency denominated financing by total Sharī'ah-compliant financing.

$$\text{Foreign-currency financing ratio} = \frac{\text{Foreign-currency financing}}{\text{Total financing}}$$

Where:

Foreign-currency funding refers to the total amount of foreign-currency denominated financing.

Total financing refers to the total value of outstanding Sharī`ah-compliant financing (including NPF and before deduction of specific provisions).

The data for the numerator and denominator can be compiled from supervisory data.

AD05. Value of *sukūk* holdings to capital

444. This PIFI measures the market value of total *sukūk* holdings of IIFS relative to capital and reserves. Volatility inherent in the fair value of *sukūk* can affect the capital and solvency of IIFS. The ratio can be calculated by dividing the total *sukūk* holdings (as defined below) by the total regulatory capital (FS01). The underlying series can be compiled from supervisory or financial accounting data.

$$\text{Value of } sukūk \text{ holdings to capital} = \frac{Sukūk \text{ holdings}}{\text{Total regulatory capital}}$$

Where:

Sukūk holdings refers to the total fair value of sukūk holdings less any deductions or provisions for impairment. Many sukūk do not have unambiguous market or fair value equivalent values, which can increase the risk inherent in these products.

Total regulatory capital refers to sector-wide regulatory capital, after supervisory deductions.

AD06. Value (or percentage) of Sharī`ah-compliant financing by economic activity

445. This PIFI provides information on the distribution of financing among sectors by economic activities based on the International Standard Industrial Classification (ISIC) list of industrial activities. This indicator provides indications about diversification of investments and possible financing concentration in particular volatile sectors. The underlying series can be compiled from supervisory data on value of financing by type of contract, summed to major category totals.

$$\text{Sharī`ah-compliant financing by economic activity} = \frac{\text{Sharī`ah-compliant financing extended to sector}}{\text{Total Sharī`ah-compliant financing}}$$

Where:

Sharī`ah-compliant financing by economic activity refers to the value of outstanding Sharī`ah-compliant financing (including NPF and before the deduction of specific provisions (SP)) extended to each sector by economic activities.

The ISIC codes have been extended to cover two destinations of financing not covered in the ISIC, which is focused on financing to specific types of industries. Much more comprehensive coverage of total IIFS financing results from the addition of the two new codes. Code *(t*) other financing of households* covers financing to households in general beyond commercially oriented financing to households operating as businesses. Code *(u*) financing to non-residents* covers financing to non-residents, which is not covered in the domestically oriented ISIC.

(a) agriculture; forestry, hunting and fishing
(b) mining and quarrying
(c) manufacturing
(d) electricity; gas; steam and air-conditioning supply
(e) water; supply; sewerage; waste management
(f) construction
(g) wholesale and retail trade; repair of motor vehicles and motorcycles
(h) transportation and storage
(i) accommodation and food service activities
(j) information and communication
(k) financial and insurance (*takāful)* activities
(l) real estate activities
(m) professional, scientific and technical activities
(n) administrative and support service activities
(o) public administration and defence; compulsory social security
(p) education
(q) human health and social work activities
(r) arts; entertainment and recreation
(s) other service activities
(t) activities of households as employers
(t) other financing of households*
(u) activities of extraterritorial organisations and bodies
(u) financing to non-residents.*

446. The item (u*) *financing to non-residents* includes all financing to non-residents. The item (t*) *other financing of households* includes financing to households for consumption, personal finance, car purchases, hajj, education, welfare, or other non-business purposes. Financing to households for real estate should be reported within item (l) *real estate activities*.

447. While the Guide recommends the inclusion of the above categories by reporting countries to enable cross-country comparability, if the data are unavailable, countries may use alternative disaggregations of financing available from their statistical systems. In this case, each category should be listed on the reporting form along with the data.

AD07. Value (or percentage) of gross NPF by economic activities

448. This PIFI measures the breakdown of gross NPF of total Sharī`ah-compliant financing by type of major sector and industries, such as real estate, trade, transport, etc. The indicator can be compiled as defined below using supervisory data on the value of financing by type of contract, summed to major category totals.

$$\text{Gross NPF by economic activities} = \frac{\text{NPFsec}}{\text{GNPF}} \text{ X } 100$$

Where:

NPF_{sec} refers to the total value of the NPF for financing extended, disaggregated by type of industrial economic activity (sector). The classification of NPF_{sec} by activity is based on the modified ISIC categories listed in AD06, above.

GNPF refers to the total value of gross non-performing financing.

AD08. Value (or percentage) of returns by major type of Sharī`ah-compliant contract

449. This PIFI gauges the weighted average return (in percentage terms) for each enumerated type of financing contract. The major types of financing contracts to be reported for this indicator are listed below. The indicator can be obtained from supervisory data on returns to financing by type of contract.

Total returns

Murābahah
Commodity Murābahah / Tawarruq
Salam
Istisnā`
Ijārah / Ijārah Muntahia Bittamlīk
Muḍārabah
Mushārakah
Diminishing Mushārakah
Wakālah
Qard Hassan
Others (*please specify*[32])
(i)
(ii)
(iii) Others

6.3 Specification of Structural Islamic Financial Indicators

450. The structural indicators describe the financing and funding structure and the supporting infrastructure of IIFS. The structural indicators are divided to separately cover: (a) stand-alone IIFS (full-fledged Islamic banks); and (b) Islamic banking branches and Islamic windows operated by conventional banks. The demarcation between reporting for the two categories is to account for the differences between stand-alone banks and windows in their structure and ease or difficulty in collecting statistical information.

ST01. Number of Islamic banks

451. This indicator is the total number of banking and near-banking IIFS as a measure of the size of the Islamic banking industry. Changes in the number of Islamic banks and windows can provide information on the health of the sector and changes in competition. Also, sharp changes in the number can indicate mergers or changes in industry structure or regulation that in turn can affect the reported financial accounts and possibly create statistical breaks in series that should be noted in metadata.

452. This SIFI can be compiled from supervisory data on registered institutions or from monetary statistics data on the number of institutions. Units that have ceased operations, but which still hold assets and have not yet legally closed, should be included in this data. To complete the data forms for full-fledged IIFS, only stand-alone IIFS, including subsidiaries operated under Shari'ah principles, should be reported whether incorporated domestically or which are

[32] Compilers are requested to report the values of returns from other types of Sharī'ah-compliant contracts, if any, by extending the list (e.g. *bai ajil, bai bitaman ajil, joaalah*, etc.). Thereafter, the "Other" category covers the remaining amount of return.

domestic branches of foreign parents. Parent banks and all domestic subsidiaries and branches should be reported as a single bank. Islamic subsidiaries of conventional banks should be reported as stand-alone Islamic banks because they hold their own capital and prepare separate financial accounting reports. Windows include only Islamic banking windows of conventional banks.

Number of domestic branch offices

453. This PIFI represents the total number of branch offices, and is intended to measure the level of access of the public to Islamic banking facilities. The reporting should only include branches and offices of stand-alone IIFS within the country, whether incorporated domestically or which are domestic branches of foreign parents. The data can be compiled from supervisory series.

Number of ATMs

454. This is the number of automatic teller machines that receive or dispense cash and permit the public to carry out various banking transactions. The data can be compiled from supervisory data. It should include only ATMs operated by branches and offices of stand-alone IIFS within the country, whether incorporated domestically or which are domestic branches of foreign parents.

ST02. Number of employees

455. This indicator includes the number of full-time equivalent (FTE) employees of banking and near-banking IIFS, by domestic and foreign control. The data can be compiled from supervisory data. Data forms of Islamic banks should only include employees of stand-alone IIFS, including subsidiaries operated under Shari'ah principles, whether registered and incorporated domestically or which are domestic branches of foreign parents. For data forms for Islamic windows, it should include only the employees of the Islamic banking windows of conventional banks.

ST03. Total assets

456. This indicator provides the aggregate total assets of banking and near-banking IIFS consisting of all financial and non-financial assets, by domestic and foreign control. The data can be compiled from supervisory, financial accounting or monetary statistics data. In compiling data for full-fledged banks, it includes only assets of stand-alone IIFS, whether registered and incorporated domestically or which are domestic branches of foreign parent banks. The data forms for windows of conventional banks should consist of total assets of the window only. Total assets equal series FS22 in the DFS balance sheet.

457. Within this indicator, countries are strongly recommended to provide the data for the disaggregated components of total assets according to the classifications below, which can be compiled from the DFS balance sheet.

Total Sharī`ah-compliant financing (excluding interbank financing) (FS24)
Interbank financing (FS25)
Ṣukūk holdings (FS26)
Other Sharī`ah-compliant securities (FS27)
All other assets (FS23, FS28, FS29, FS30, FS31)

458. All other assets include the remaining components of total assets not specifically enumerated above, which comprise cash and cash balances with the central bank, investment funds,

equities, fixed assets (plant, propert, and equipment), hedging instruments, and all other assets.

ST04. Total funding/liabilities and equities

459. This SIFI represents the total funding/liabilities and equities of banking and near-banking IIFS, by domestic and foreign control. Countries are strongly encouraged to also provide disaggregated data for the categories listed below.

Profit-sharing investment accounts (PSIA) from customers
Unrestricted FS34(i.ii)
Restricted (on-balance-sheet) FS34(i.iii)
Other remunerative funding (*murābahah*, commodity *murābahah*, etc.)

FS34(ii.ii) + FS34(ii.iv) + FS34(ii.v)

Non-remunerative funding (current account, *wadi'ah*) FS33(ii), FS33(iii)

Sukūk issued FS36

Other Sharī`ah-compliant securities issued FS37

Interbank funding/liabilities

FS33(i) + FS34(i.i) + FS(ii.i) + FS34(ii.iii) + FS35

All other liabilities FS38 + FS39

Capital and reserves FS40 + FS41

Memo: Restricted PSIA (off-balance sheet)

460. In the above categorisation, PSIA refers to profit-sharing investment accounts, which are pools of investment funds placed with an IIFS, usually on a *mudārabah* basis. PSIA are categorised as restricted PSIA and unrestricted PSIA, depending on whether the funds are commingled with other assets of the IIFS. (If restricted PSIA are shown on-balance sheet, they are treated as a source of funding; conversely, off-balance-sheet restricted PSIA should be reported in a separate memo item.) The second category, other remunerative funding, refers to types of funding that pay returns to depositors, such as *murābahah*-based transactions. Non-remunerative funding/liabilities refers to current accounts such as *wadi'ah* that do not pay depositors returns. PSIA funding from banks FS34(i.i) should be reported as part of interbank funding.

461. The data can be compiled from supervisory or financial accounting data. The data form for full-fledged banks covers only funding/liabilities and equity of stand-alone IIFS, whether registered and incorporated domestically or which are domestic branches of foreign parents; the windows form covers data for windows of conventional banks only.

ST05. Total revenues

462. This SIFI provides a value of the total revenues from net financing and investment income, fees and services income, gains and losses on financial instruments, and other income. Provisions for accrued income on non-performing financing (FS02(iii)) are not included, since the funds are not effectively received by the IIFS.

463. *When available, quarterly revenue data should be used. Alternatively, c*ompilers should include, for the current year, annualised data from the beginning of the year until the reporting month. Countries are also encouraged to report the revenues for the following categories;

Total revenues FS01 – FS02(iii) + FS04 + FS05 + FS06 + FS07

Financing based FS01(i) – FS02(iii)
Investment based (sukūk, other Sharī`ah-compliant securities, etc.) FS01(ii)
Fee based FS05
Other (including gains/losses on financial instruments) FS04 + FS06 + FS07

464. The data can be compiled from supervisory data or financial accounting data of IIFS. The data form for full-fledged banks includes only revenues of stand-alone IIFS, whether registered and incorporated domestically or which are domestic branches of foreign parents. The windows data form covers only the revenues for Islamic windows of conventional banks, excluding those of the parent bank.

ST06. Earnings before taxes and *zakat*

465. This SIFI is the net income of banking and near-banking IIFS (before *zakat* and taxes) (FS13). The data can be obtained from supervisory data for banking and near-banking IIFS. It should include only earnings of stand-alone IIFS, whether registered and incorporated domestically or which are domestic branches of foreign parents. For windows, only the earnings of the Islamic banking window of the conventional bank are included.

ST07. Value (or percentage) of financing by major type of Sharī`ah-compliant contract

466. This PIFI covers the value of financing by major type of Sharī`ah-compliant financing contract. The categories for reporting data on major types of financing contracts are listed below. The total value for each enumerated major types of financing should be reported. This data can be compiled from supervisory data on financing by type of contract.

Total financing
Murābahah
Commodity Murābahah / Tawarruq
Salam
Istisnā`
Ijārah / Ijārah Muntahia Bittamlīk
Muḍārabah
Mushārakah
Diminishing Mushārakah
Wakālah
Qard Hassan
Others (please specify [33])
(i)
(ii)
(iii) Others

ST08. Assets of domestically significantly important Islamic banks

467. This SIFI provides a measure of the assets of D-SIBs in a jurisdiction, which gives an indication of the impact that the distress or failure of a single large IIFS will have on the domestic economy. Compilers should report the total assets of IIFS that are domestically significantly important banks as per the national classification system used. For guidance on classification of D-SIBs, compilers may also refer to IFSB-15.

468. Although not part of the set of SIFIs, national compilers might consider whether individual IIFSs might be systemically important on an intrasectoral basis within the Islamic banking subsector. In dual conventional/Islamic banking systems, the smaller size of the Islamic banking sector

[33] Compilers are requested to report the values of financing from other types of Sharī'ah-compliant contracts, if any, by extending the list (e.g. *bai ajil, bai bithaman ajil, jua'l*ah, etc.). Thereafter, the "Other" category covers any remaining amount of financing.

and the tendency of Sharī'ah-compliant financial transactions to be transacted within that sector make it more likely that financial stresses experienced by Islamic banks will be transmitted to other Islamic banks and thus are concentrated within the sector. An Islamic bank that might not be large enough to be systemically important within the full banking sector might have enhanced importance within the Islamic banking sector; as such, this might be reason for special oversight of that bank. Measures of concentration within the Islamic banking sector (such as the Herfindahl index) might be informative in identifying banks that are systemically important within the Islamic banking system (see Chapter 10 on concentration and distribution measures).

CHAPTER 7: *TAKĀFUL* INDICATORS FOR PSIFIs

7.1 Introduction

469. The word "*takāful*" refers to mutual responsibility – an alternative term to "Islamic insurance", whereby a group of participants agree among themselves to support one another jointly for the losses arising from specified risks. *Takāful* is the Islamic counterpart of conventional insurance and exists in both family (or "life") and general forms. In a *takāful* arrangement, the participants contribute a sum of money as a *tabarru'* commitment into a common fund that will be used mutually to assist the members against a specified type of loss or damage.
470. In 2006, a joint working group comprised of the IFSB, the International Association of Insurance Supervisors and other experts agreed that the IFSB should have "an active and complementary role to that of the IAIS by issuing prudential and supervisory standards for *takāful*" in order to safeguard the interests of consumers and the soundness and stability of the financial system. Specific mandates set by the working group were to:
    - provide benchmarks for *takāful* supervisors in adapting and improving regulatory regimes or establishing new ones;
    - address regulatory issues, such as risk management and financial stability;
    - provide appropriate consumer protection in terms of both risk and disclosure; and
    - support orderly development of the *takāful* industry and the design and marketing of *takāful* products.
471. Subsequently, the GFC demonstrated the systemic importance of insurance and its potential as a destabilising force in financial systems, which highlights the need to obtain good statistical coverage of the soundness and evolution of the *takāful* industry.
472. The basic structure and key concepts of the *takāful* model are discussed below.

Takāful undertaking

473. A typical *takāful* undertaking consists of a two-tier structure that is a hybrid of a mutual and a commercial form of company – the *takāful* operator (TO) – although, in principle, it could be a pure mutual structure.

Takāful participants

474. *Takāful* participants (TPs) are individuals (or institutions) who enter into a Sharī'ah-compliant scheme of mutual risk cover.

Categorisation[34]

475. **Similar to conventional insurance,** *takāful* for the Islamic financial services industry can be divided into family *takāful* – broadly similar in nature to "life insurance" in conventional terms, and general *takāful ("non-life insurance").*

Family takāful

476. **Participants' Investment Fund and Participants' Risk Fund:** In family *takāful*, the paid *takāful* contribution of a participant is usually segregated into two different funds: (a) the Participants' Investment Fund (PIF), which constitutes an investment fund for the purpose of capital formation; and (b) the Participants' Risk Fund (PRF),[35] which is a risk fund – that is, an element of the business risk inherent in the underwriting activities, and the contributions to which are made on the basis of *tabarru'* commitment.

General takāful

[34] IFSB-8: *Guiding Principles on Governance for Takāful (Islamic Insurance) Undertakings.*
[35] The "participants' risk account" is also sometimes referred to as "participants' special account" (Source: IFSB-8).

477. General *takāful* schemes are basically contracts of joint guarantee on a short-term basis (normally one year), providing mutual compensation in the event of a specified type of loss. The schemes are designed to meet the needs for protection of individuals and corporate bodies in relation to material loss or damage resulting from a catastrophe or disaster inflicted upon the real estate, assets or belongings of participants. The *takāful* contribution paid is pooled into the PRF under the principle of *tabarru'* to match the risk elements of the business that are inherent in its underwriting activities.

7.2 Operations of the *Takāful* Industry

478. The industry itself operates on two levels. At the primary level, *takāful* is offered to customers (general public, businesses, institutions) covering a wide range of risks (auto, health, life insurance and disability, product warranties, fire, marine, etc.). Primary insurers receive contributions in order to provide protection to policyholders upon the occurrence of events specified in the policy; that is, they absorb risk from the public in exchange for receiving contributions.
479. Reinsurers (*retakāful*) insure primary insurers. Reinsurers take a portion of the risk absorbed by primary insurers in exchange for a portion of the *takāful* contribution received by the primary insurers, which can contribute to the financial soundness of the primary insurers. In some countries, *takāful* markets are too small to support domestic reinsurance operations. In those cases, reinsurance is often done in international reinsurance markets, such as in Dubai, London or Malaysia.

Units of the takāful industry

480. *Takāful* can be organised in various ways: as separate full Islamic financial institutions, branches or subsidiaries of Islamic banks or other Islamic financial institutions; as local brokers for international providers; or as Islamic insurance windows of conventional insurance corporations. The capital structures and liquidity operations of the *takāful* units and the risks involved are likely to differ depending on the structure used.

7.3 List of *Takāful* Indicators for PSIFIs

481. Reporting of *takāful* information for the PSIFs data needs to take into consideration the conceptual difference between *takāful* and conventional insurance. Based on an IFSB survey and feedback received from the PSFIs task force, a list of indicators was selected for the *takāful* sector and categorised into three groups:

(i) Prudential *Takāful* Indicators: Core indicators are analytically significant, relevant in most circumstances (i.e. not country-specific), generally available and of high perceived usefulness.

(ii) Additional Prudential *Takāful* Indicators: These indicators are also relevant for financial stability assessment, but their importance may vary from one country to another. Other than these common additional prudential indicators, few additional indicators are added which are specific to family *takāful* only.

(iii) Structural *Takāful* Indicators: These are indications of the size and structure of the Islamic banking sector. In contrast to the analytical ratios that comprise the prudential indicators, most structural indicators are not ratios but numbers and volumes indicating size or amounts. Measures of the size and structure of the *takāful* industry are important in analysing its systemic importance.

482. Similar to the CAMELS analytic framework used for organising prudential indicators for Islamic banking, *takāful* indicators use a "CARMELS" framework that has an additional measure for *retakāful*: **C**apital Adequacy, **A**sset Quality, **R**einsurance, **M**anagement, **E**arnings, **L**iquidity,

and **S**ensitivity to Market Risk. Reinsurance, which results in transfer of risk to a reinsurance firm, is added because it is directly related to the soundness of the operation.

483. A complete list of takāful Indicators is given in Table 7.1.

Table 7.1: List of *Takāful/Retakāful* Indicators (General and Family)

		Relevant to	
		General	Family
PRUDENTIAL *TAKĀFUL* INDICATORS			
1.	**CAPITAL ADEQUACY**		
TP01	Risk-based capital adequacy ratio/solvency capital requirement (SCR)	X	
2.	**ASSET QUALITY**		
TP02	Technical reserves ratio		X
TP03	(Real estate + unquoted equities + debtors)/total assets	X	X
TP04	Receivables due over 180 days to shareholders' equity		X
TP05	Equities/total assets	X	X
TP06	Contributions receivable to written contributions	X	X
3.	***RETAKĀFUL* AND ACTUARIAL**		
TP07	Risk retention ratio	X	X
TP08	Survival ratio (claims)		X
4.	**MANAGEMENT SOUNDNESS**		
TP09	Operating expense ratio	X	X
TP10	Gross premium/number of employees	X	X
TP11	Assets per employee	X	X
5.	**EARNINGS AND PROFITABILITY**		
TP12	Loss ratio	X	-
TP13	Claims ratio	X	-
TP14	Expense ratio	X	X
TP15	Investment income/net premium	X	-
TP16	Investment income/investment assets	-	X
TP17	Combined ratio	X	
TP18	Return on equity	X	X
TP19	Return on assets	X	X
TP20	Total investment assets to shareholders' equity	X	X
6.	**LIQUIDITY**		
TP22	Current ratio	X	X
TP23	Liquid assets to current liabilities	X	X
ADDITIONAL PRUDENTIAL *TAKĀFUL* INDICATORS			
TA01	Underwriting revenues/underwriting profit	X	X
TA02	Operating and management expenses	X	X
TA03	*Wakālah* fee	X	X
TA04	Net profit (after taxation/*zakat*)	X	X
TA05	Distribution of channel	X	X
TA06	*Takāful* penetration rate	X	X
TA07	*Takāful* density rate	X	X
TA08	Liquid assets to current liabilities	X	X

TA09	Gross retained premium	X	X
TA10	Contribution in *takāful*	X	X
ADDITIONAL PRUDENTIAL INDICATORS SPECIFIC TO FAMILY *TAKĀFUL*			
TF01	No. of new business certificates of direct *takāful* operators	-	X
TF02	No. of certificates in force of direct *takāful* operators	-	X
TA03	Participating in new business: no. of certificates (policies) or contributions	-	X
TF04	Participating in new business: business in force	-	X
TF05	Distribution/ line of business	-	X
TF06	Termination or expiry: no. of certificates (no. of policies)	-	X
STRUCTURAL *TAKĀFUL* INDICATORS			
TS01	Number of *takāful* operators	X	X
TS02	Total assets of *takāful* funds	X	X
TS03	Total contributions	X	X
TS04	Total equities	X	X
TS05	Net contributions	X	X
TS06	Total claims	X	X
TS07	Net claims	X	X
TS08	Changes in *qard*	X	X
TS09	Technical reserves	X	X
TS10	Surplus/deficit in the PRF	X	X
TS11	Total liabilities	X	X
TS12	Total liabilities to shareholders' equity (leverage)	X	X
TS13	Total liabilities to total assets (leverage)	X	X
TS14	Admissible assets[36] to total assets	X	X

[36] Admissible assets are assets considered to be high quality and liquid enough (as determined by national supervisors) to cover expected claims. National definitions are expected to vary from each other.

484. Brief compilation methodologies for the *takāful* indicators mentioned in Table 7.1 are described below.

7.4 Compilation Methodologies of *Takāful/Retakāful* Indicators

A. PRUDENTIAL *TAKĀFUL/RETAKĀFUL* INDICATORS

1. CAPITAL ADEQUACY

TP01: Risk-based capital adequacy ratio (general)[37]

Definition:

The risk-based capital adequacy ratio is a measure of capital adequacy determined by comparing the amount of qualifying capital resources to the minimum capital requirement using the following ratio. The capital available of a licensed *takāful* operator is the sum of tier 1 and tier 2 capital of the licensed *takāful* operator less the deductions. The total amount of tier 2 capital shall not exceed the amount of tier 1 capital.

Formula:

$$\textbf{Risk-based capital adequacy ratio} = \frac{\textbf{Qualifying capital resources}}{\textbf{Minimum capital requirement}}$$

Numerator:

Qualifying capital resources: The definition of qualifying capital resources sets out criteria and specifications that consider policyholder protection and loss absorbency. All potential capital resources are assessed against this definition to determine whether they are qualifying capital resources.

The total capital available considers the capital available in the shareholders' fund that is fully available to support the risks of the business or to give a *qard* to the participants' risk funds when needed.

Qualifying capital resources include both financial instruments and elements other than financial instruments classified into two tiers of capital, tier 1 and tier 2.

Tier 1 capital resources comprise qualifying financial instruments, and capital elements other than financial instruments, that absorb losses on a going-concern basis and in winding-up. Tier 1 capital includes:
(a) issued and fully paid-up ordinary shares;
(b) share premiums;
(c) paid-up non-cumulative irredeemable preference shares;
(d) capital reserves;
(e) retained profits; and
(f) the valuation surplus maintained in the *takāful* funds.

Tier 2 financial instruments and capital elements other than financial instruments absorb losses only in winding-up. Capital instruments that qualify as tier 2 capital include any of the following:
(a) cumulative irredeemable preference shares;
(b) mandatory capital loan stocks and other similar capital instruments;
(c) irredeemable subordinated debts;

[37] In some jurisdictions, the solvency ratio is used as an alternative indicator. The solvency ratio equals net admissible assets divided by the minimum capital requirement. PSIFIs may accept this indicator for reporting as an alternative to the risk-based capital adequacy ratio.

(d) available-for-sale reserves;
(e) revaluation reserves for self-occupied properties and other assets;
(f) general reserves;
(g) subordinated term debts; and
(h) *qard* from shareholders' fund.

Denominator:
Minimum capital requirement: The minimum capital requirement, calculated using a risk-based method, is the amount of capital resources needed to cover loss(es) at the specified target criteria, as set by national supervisors.

2. ASSET QUALITY

TP02: Technical reserves ratio

Definition:
Technical reserves are the amounts that the *takāful/retakāful* companies set aside from premiums to cover claims for *takāful* participants. Technical reserves are created to take care of expected claims that may arise. This indicator is considered for family only.

Formula:

$$\textbf{Technical reserves ratio} = \frac{\textbf{Premium liabilities}}{\textbf{Claims liabilities}}$$

Premium liabilities will be calculated based on unearned premium reserves, which represent the unearned portion of gross premiums at the time of valuation. Claims liabilities refer to the unpaid and expense claims reserves.

TP03: (Real estate + unquoted equities + debtors)/Total assets

Definition:
This indicator refers to asset quality based on the amount of real estate, unquoted equities and debtors. The certain types of investments (e.g. real estate, unquoted equities, debtors) involve special risks and may raise a conflict of interest.

TP04: Receivables due over 180 days to shareholders' equity (family)

Definition:

This ratio measures how much of the receivables are overdue in comparison to the equity. A high ratio would indicate that the company must speed up its collection process and there is a high chance of default from receivables long overdue.

Formula:

$$\textbf{Receivables due over 180 days to shareholders' equity} = \frac{\textbf{Receivables due over 180 days}}{\textbf{Shareholders' equity}}$$

TP05: Equities/Total assets (general and family)
Definition: This ratio measures how much of the TO's assets are owned by investors and are not leveraged.

TP06. Contribution receivable to written contribution (general and family)
Definition: This ratio measures how much of the written contribution is not yet received by the company. A lower ratio is preferred, as it indicates that the company has received a high proportion of its written contribution. **Formula:** **Contribution receivable to written contribution =** $\frac{\text{Contribution receivable}}{\text{Written contribution}}$

3. *RETAKĀFUL* AND ACTUARIAL

TP07: Risk retention ratio (general and family)
Definition: This is the ratio of total contributions minus the contributions ceded by primary *takāful* providers (i.e. net contributions is the net amount of contributions after deduction of return contributions and payments in respect of *retakāful* business ceded) relative to total (gross) contributions. **Formula:** **Risk retention ratio =** $\frac{\text{Net contribution}}{\text{Gross contribution}}$ The risk retention ratio measures the risk that is not passed on to *retakāful* companies. It indicates the level of risks retained by the TO. RTs should compile the ratio in a similar manner. *Retakāful* plays an essential role in the risk-spreading process. Normal levels of risk retention can vary by types of coverage and market conditions, but low or declining levels might signal inadequate *retakāful* infrastructure or the hesitance of RTs to accept risks because of the possible low quality or financial difficulties of primary *takāful* providers**.**

TP08: Survival ratio (claims) (family)
Definition: The survival ratio is defined as held technical reserves divided by average of claims paid, where the average of claims paid is typically calculated by averaging the preceding three years' payments. **Formula:** **Survival ratio =** $\frac{\text{Technical reserve}}{\text{Average of claims paid in last 3 years}}$

4. MANAGEMENT SOUNDNESS

TP09: Operating expense ratio (general and family)

Definition:

This is the ratio of operating expenses over net premium contributions. Expense ratio reflects the efficiency of *takāful/retakāful* undertakings. The expense ratio for a *takāful/retakāful company* can also be analysed by class of business, along with the trend of the same.

Formula:

Operating expense ratio = Expense/Net contributions

Total operating expenses, including personnel, administrative costs, rent, purchases of goods and services, depreciation and other provisions, and all other non-financing overhead expenses.

Net premium contributions are the contributions on the net rate charged to clients in respect of direct *takāful* business after any deduction for commission.

TP10: Gross premium/Number of employees (general and family)

Definition:

This ratio indicates that the relative efficiency of a national *takāful* industry is calculated by dividing the direct gross premiums by the number of employees in TOs.

TP11: Assets per employee (general and family)

Definition:

This is the ratio of total assets divided by the number of full-time employees at the end of the reporting period.

Formula:

Assets per employee = Total assets/Number of employees

5. EARNINGS AND PROFITABILITY

TP12: Loss ratio (general)

Definition:

This ratio refers to the ratio of loss incurred to net contributions. The ratio gives an indication of how well the pricing of a *takāful* undertaking matches risks taken in the *takāful* contracts.

Formula:

Loss ratio = Loss incurred/Net contributions

The loss ratio is a reflection of the nature of the risk underwritten and the adequacy or inadequacy of pricing of risks. Net premium contributions is the portion of a premium that is recognised as income based on the expired portion of the policy period.

TP13: Claims ratio (general)

Definition:

This ratio refers to the ratio of total claims paid to net earned contributions. The ratio gives an indication of how well the pricing of a *takāful* undertaking matches risks taken in the *takāful* contracts.

It measures the total claims paid out to policyholders by the *takāful* company as a percentage of net earned contributions over the same time period.

Formula:

$$\textbf{Claims ratio} = \frac{\text{Total claims paid}}{\text{Net earned contributions}}$$

TP14: Expense ratio (general and family)

Definition:

The expense ratio in the *takāful* industry is a measure of profitability calculated by dividing the expenses associated with acquiring, underwriting, and servicing premiums by gross contribution of the TO. The expenses can include advertising, and employee wages, among others.

Formula:

Expense ratio = Expense/Gross contribution

TP15: Investment income/Net premium (general)

Definition:

The investment income ratio is the ratio of an insurance company's net investment income to its earned premiums. The indicator compares the income that a TO brings in from its investment activities, rather than from its operations.

TP16: Investment income/Investment assets (family)

Definition:

The indicator compares the income that a TO brings in from its investment activities, rather than from its operations.

TP17: Combined ratio (general)

Definition:

The combined ratio is a reflection of the underwriting expenses as well as operating expenses structure of the TO, as defined in TP13: Loss ratio (loss incurred/net contributions) and TP10: Operating expense ratio (expense/gross contributions).

Formula:

Combined ratio = Loss ratio + Expense ratio

It is a measure of overall underwriting profitability determined by dividing the sum of all expenses (losses, loss expenses, underwriting expenses, and dividends to policyholders) by net contributions for the period.

TP18: Return on equity (general and family)

Definition:

ROE is calculated as the *takāful/retakāful* operator's net income divided by the common shareholders' fund.

Formula:

$$\textbf{Return on equity} = \frac{\text{Operator's net income}}{\text{Shareholders' fund}}$$

The ROE is a profitability ratio that measures the ability of a *takāful/retakāful* operator to generate profits from its shareholders' fund.

Numerator: Net income before extraordinary items, *zakat* and taxes. For the current year, income accrued from the beginning of the year until the reporting period should be reported on an annualised basis.

Denominator: Total financial and non-financial equity, including parent's equity in *takāful/retakāful* windows, corresponding to the accounting period for income. For annual data, an average of beginning-of-the-year and end-of-the-year equity should be used; if quarterly data are available, the average of quarterly data is preferred. For quarterly data, the preferred measure is the average of beginning-of-quarter and end-of-quarter data, but the end-of-quarter data are acceptable.

TP19: Return on assets (general and family)

Definition:

ROA is a measure of the efficiency of use of assets. It is a standard measure used for comparison of *takāful/retakāful* systems between countries.

Formula:

$$\textbf{Return on assets} = \frac{\text{Operator's net income } \textbf{X 100}}{\text{Total assets}}$$

The ROA is a profitability ratio that measures the ability of a *takāful/retakāful* operator to generate profits from its shareholders' fund. The ability to generate profits can reflect the effectiveness of operations in multiple areas, such as pricing of contributions relative to risks, *retakāful* policies, and effective control over expenses.

Numerator: Net income before extraordinary items, *zakat* and taxes. For the current year, income accrued from the beginning of the year until the reporting period should be reported on an annualised basis. As a pre-tax measure, it focuses on the current net operating income of the firm.

Denominator: The denominator should be the average stock of total assets from the beginning of the year until the reporting period. If quarterly data are available, the average of quarterly data is preferred. For quarterly data, the preferred measure is the average of beginning-of-quarter and end-of-quarter data, but the end-of-quarter data are acceptable.

TP20: Total investment assets to shareholders' equity (general and family)

Definition:

This is a ratio of total invested assets to *takāful/retakāful* companies' shareholders' equity. The indicator is a measurement of financial leverage.

Formula:

Total investment assets to shareholders' equity = Total invested assets/Shareholders' equity

Total invested assets include non-financial assets held for investment purposes. Total invested assets refer to investments in shares, *ṣukūk* and investment property.

B. ADDITIONAL PRUDENTIAL *TAKĀFUL* INDICATORS

TA01: Operating revenues/Underwriting profit (general and family)

Definition:

Operating revenues equal total revenues excluding realised capital gains and losses and unrealised capital gains/losses reported as "other comprehensive income". Underwriting profit consists of the earned premium remaining after losses have been paid and administrative expenses have been deducted.

Formula:

Operating revenues/Underwriting profit = (Total revenues – Realised and unrealised capital gains and losses)/Underwriting profit

TA02: Operating and management expenses (general and family)

Definition:

Total operating expenses, including personnel, administrative costs, rent, purchases of goods and services, depreciation and other provisions, and all other non-financing overhead expenses. The accounting and budgeting expenses are part of management and general expenses.

Formula:

Operating and management expenses = Management expenses + Bad and doubtful debts –- Bad debts recovery

TA03: *Wakālah* fee (value) (general and family)

Definition:

For products based on the *wakālah* contract, fees charged on the contributions based on contractual terms entered with the participants.

TA04: Net profit (after taxation/*zakat*) (general and family)

Definition:

The indicator measures the amount of income, including capital gains and losses (realised and unrealised gains/losses within other comprehensive income, after *zakāh*, any extraordinary adjustments, and taxes).

TA05: Distribution channels (general and family)

Definition:

These are channels/methods/outlets for contributions by which *takāful/retakāful* is offered to customers.

(i) Agent/brokers

(a) Affinity group schemes (e.g. a policy for members of a trade union)

(b) Sales as add-ons to other products (e.g. travel *takāful* sold with a holiday)

(ii) Direct channel (over-the-counter)

(a) Offered by domestic TO or RT

(b) Offered by TO or RT in another country

(iii) Banca*Takāful*
(iv) Internet channel
(c) Offered by domestic TO or RT
(d) Offered by TO or RT in another country
(v) Telephone marketing

TA06: *Takāful* penetration rate (general and family)

Definition:

Penetration rate indicates the level of development of the *takāful* sector in a country.
The penetration rate is measured as the ratio of contributions in a particular year to the GDP.

Formula:

$$\textbf{\textit{Takāful} penetration rate} = \frac{\text{Annual } \textit{takāful} \text{ contributions}}{\text{GDP}}$$

TA07: *Takāful* density rate (general and family)

Definition:

Penetration rate indicates the level of development of the *takāful* sector in a country as per population.

Formula:

$$\textbf{\textit{Takāful} density rate} = \frac{\text{Annual } \textit{takāful} \text{ contributions}}{\text{Total population}}$$

This indicator can be used to measure the degree of use of *takāful* relative to similar measures for *takāful* for the entire population.

Alternatively, the ratio can be measured for the estimated total Moslem population in a country. If this alternative is used, it should be mentioned in metadata.

TA08: Liquid assets to current liabilities (general and family)

Definition:

The ratio tests how sufficient the company's liquid assets are to meet the company's obligations in the short term. A higher value is preferred, as it shows that the company has sufficient liquidity.

Formula:

$$\textbf{Liquid assets to current liabilities} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

TA09: Gross retained premium (general and family)

Definition:

Gross written premium income is the amount of a TO's premiums that are used to determine what portion of premiums is owed to a *retakāful*.

C. ADDITIONAL PRUDENTIAL INDICATORS SPECIFIC TO FAMILY *TAKĀFUL* ONLY

TF01: Number of new business certificates of direct *takāful* operators

Definition:

This indicator refers to a non-negotiable document (policy) issued by a TO obligating it to pay benefits under specified circumstances. The indicator covers only new policies issued during the accounting period used in the report. As such, it is a current measure of the growth of the *takāful* industry in the country.

TF02: Number of certificates in force of direct *takāful* operators

Definition:

This indicator refers to a non-negotiable document issued and granted by a TO obligating it to pay benefits under specified circumstances.

D. STRUCTURAL *TAKĀFUL* INDICATORS

TS01: Number of *takāful* operators (general and family)

Definition:

Total number of *takāful/retakāful* operators. This is a measure of the size and changes in growth of the *takāful* industry.

TS02: Total assets of *takāful* funds (general and family)

Definition:

Total assets of *takāful/retakāful* operators, by domestic and foreign control. The assets are categorised into the following components:

(i) **General *takāful* funds:** The total value of *takāful* assets in general *takāful* funds.
(ii) **Family *takāful* funds**: The total value of *takāful* assets in family *takāful* funds.
(iii) **Shareholders' fund**: The total value of *takāful* assets in shareholders' funds.

TS03: Total contributions (general and family)

Definition:

The indicator measures the amount of gross contributions according to the following categories:

(i) Family
   a. Mortgage
   b. Investment linked
   c. Annuity endowment
   d. Whole life
   e. Others

(ii) General
   a. Marine, aviation and transit
   b. Medical, health and personal accident
   c. Motor
   d. Fire, property and accidents
   e. Others

TS05: Net contributions (total contributions less cessions and *retakāful*) (general and family)

Definition:
Net contributions are derived as total contributions less cessions and *retakāful*.

$$\textbf{Net contributions} = \textbf{Total contributions less Cessions and } \boldsymbol{retak\bar{a}ful}$$

TS06: Total claims (gross) (general and family)

Definition:
This indicator measures the amount of total claims broken down into the following family and general *takāful* categories:

(i) Family
   a. Mortgage
   b. Investment linked
   c. Annuity endowment
   d. Whole life
   e. Others

(ii) General
   a. Marine, aviation and transit
   b. Medical, health and personal accident
   c. Motor
   d. Fire, property and accidents
   e. Others

TS07: Net claims (general and family)

Definition:
Net claims is the amount of claims incurred during an accounting period after deducting *retakāful* recoveries. Net claims should be classified into the following categories:

(i) Family
   a. Mortgage
   b. Investment linked
   c. Annuity endowment
   d. Whole life
   e. Others

(ii) General
   a. Marine, aviation and transit
   b. Medical, health and personal accident
   c. Motor
   d. Fire, property and accidents
   e. Others

TS08: Changes in *qard* (general and family)

Definition:
Transfers to the *takāful* fund by the operator in the event of a deficit based on the occurrence of an unexpected event or other liquidity deficiencies.

TS09: Technical reserves (general and family)

Definition:
Technical reserve is the sum of the unearned contribution reserves and provision for outstanding claims. This reserve refers to premium liabilities as mentioned in TP02.

Formula:

$$\textbf{Technical reserve} = \textbf{Unearned contribution reserves} + \textbf{Provision for outstanding claims}$$

TS10: Surplus/deficit in the PRF (general and family)

Definition:

Surplus from the participants' risk fund refers to a surplus derived after taking into account provisions for payment of claims, *retakāful*, reserves and investment profits. The surplus from the participants' risk fund belongs to the *takāful* participants collectively.

TS11: Total liabilities (general and family)

Definition:

Total liabilities refers to the aggregate of *takāful* and shareholders' funds and equity.

TS12 Total liabilities to shareholders' equity (general and family)

Definition:

This ratio measures the proportion of liabilities a company is carrying relative to its equity. A lower value suggests that there is a lower risk of the company not being able to meet its long-term financial obligations.

Formula:

$$\textbf{Total liabilities to shareholders' equity} = \frac{\textbf{Total liabilities}}{\textbf{Shareholders' equity}}$$

Includes only assets of *takāful/retakāful* operators, whether registered and incorporated domestically or which are domestic branches of foreign parents.

Takāful/retakāful windows of conventional insurance firms should be reported on the separate windows form.

TS13 Total liabilities to total assets (general and family)

Definition:

This ratio measures the proportion of liabilities a company is carrying relative to its assets. A value greater than 100% indicates a company has more liabilities than can be covered by the assets.

Formula:

$$\textbf{Total liabilities to total assets} = \frac{\textbf{Total liabilities}}{\textbf{Total assets}}$$

Includes only assets of *takāful/retakāful* operators, whether registered and incorporated domestically or which are domestic branches of foreign parents.

Takāful/retakāful windows of conventional insurance firms should be reported on the separate windows form.

TS14 Admissible assets to total assets (general and family)

Definition:

This ratio measures the proportion of the assets that are admissible. A higher value is preferred, showing that a lower proportion of the assets are inadmissible.

Formula:

$$\textbf{Admissible assets to total assets} = \frac{\textbf{Admissible assets}}{\textbf{Total assets}}$$

Includes only assets of *takāful/retakāful* operators, whether registered and incorporated domestically or which are domestic branches of foreign parents.

Admitted assets often include mortgages, accounts receivable, *ṣukūk* and Sharīʿah-compliant certificates.

Takāful/retakāful windows of conventional insurance firms should be reported on the separate windows form.

7.5 Aggregation and Consolidation for the *Takāful* Sector

485. The capital resources and the capital requirement are calculated on a consolidated group-wide basis. The IAIS Consultative Document of the Insurance Capital Standard, version 2.0, proposes that the process of determining the scope of the group starts with the consolidated balance sheet of the *takāful* holding company of a *takāful* group, or the financial holding company of a *takāful*-led financial conglomerate.

486. In contrast to the IAIS Consultative Document, for the purposes of measuring the extent of *takāful* markets, data on *takāful/retakāful* should be consolidated only with Islamic entities within its corporate family; that is, *takāful/retakāful* should not be consolidated with any conventional parents or sibling organisations. Underlying data are from supervisory series covering the consolidated regulatory capital. Series may be based on the IAIS Insurance Capital Standard (version 1.0 or 2.0) as applied by each country.

487. Either *Domestic location consolidation basis* or *Cross-border, Cross-sector, domestically incorporated consolidation basis (CBCSDI)* is required for the *takāful/retakāful* sector.

488. *Domestic location consolidation basis (DL):* DL covers the activity of all *takāful/retakāful companies* resident in the country.

489. *Cross-border, Cross-sector, domestically incorporated consolidation basis (CBCSDI):* The CBCSDI consolidation focuses on foreign *takāful/retakāful* subsidiaries in the country consolidated with their lower-level foreign subsidiaries and branches.

490. Stand-alone *takāful/retakāful* companies and *takāful/retakāful* windows are recorded on separate forms.

7.6 Metadata for the *Takāful* Sector

491. The Compilation Guide recommends the collection of PSIFIs for the *takāful* industry to be accompanied by the provision of metadata, such as the content and coverage of each PSIFI, as well as its accounting principles and other national guidelines, to assist users in understanding the methodology and interpreting the PSIFIs while enhancing the transparency of their calculations.

CHAPTER 8: ISLAMIC CAPITAL MARKET INDICATORS FOR PSIFI

8.1 List of Islamic Capital Market Indicators

492. The Prudential and Structural Islamic Financial Indicators for the ICM cover three main areas: sukūk,[38] Sharīʿah-compliant equities and Islamic funds. The indicators applicable to each of these categories are listed in Table 8.1 below.

Table 8.1: List of Islamic Capital Market Indicators

	Ṣukūk
S01	**Total number of *sukūk* issued**
S01a	Total number of *sukūk* issued by currency of denomination
S01b	Total number of *sukūk* issued by type of issuer
S01c	Total number of *sukūk* issued by economic sector
S01d	Total number of *sukūk* issued by type of Sharīʿah-compliant contract
S01e	Total number of *sukūk* issued by use of proceeds
S01f	Total number of *sukūk* issued by tenor
S02	**Total value of *sukūk* issued**
S02a	Total value of *sukūk* issued by currency of denomination
S02b	Total value of *sukūk* issued by type of issuer
S02c	Total value of *sukūk* issued by economic sector
S02d	Total value of *sukūk* issued by type of Sharīʿah-compliant contract
S02e	Total value of *sukūk* issued by use of proceeds
S02f	Total value of *sukūk* issued by tenor
S03	**Total value of *sukūk* outstanding**
S03a	Total value of *sukūk* outstanding by currency of denomination
S03b	Total value of *sukūk* outstanding by type of issuer
S03c	Total value of *sukūk* outstanding by economic sector
S03d	Total value of *sukūk* outstanding by type of Sharīʿah-compliant contract
S03e	Total value of *sukūk* outstanding by use of proceeds
S03f	Total value of *sukūk* outstanding by tenor

[38] The IFSB takes cognisance of the fact that both asset-based and asset-backed *ṣukūk* exist in various jurisdictions. In IFSB-15: *Revised Capital Adequacy Standard*, for instance, both asset-backed and asset-based *ṣukūk* are mentioned. This Compilation Guide does not distinguish between asset-based and asset-backed *ṣukūk* for data compilation purposes.

S04	**Total value of *sukūk* default**
S04a	Total value of *sukūk* default by type of issuer
S04b	Total value of *sukūk* default by economic sector
S05	**Total value of *sukūk* restructuring**
S05a	Total value of *sukūk* restructuring by type of issuer
S05b	Total value of *sukūk* restructuring by economic sector

	Sharīʿah-Compliant Equities
E01	**Sharī'ah-compliant equities**
E01a	Total value (market capitalisation) of Sharī'ah-compliant equities issued by economic sector
E01b	Total number of Shari'ah-compliant equities

	Islamic Funds
F01	**Total number of Islamic funds**
F01a	Total number of Islamic funds by asset class
F01b	Total number of Islamic funds by type of fund
F02	**Total value of Islamic assets under management (AuM)**
F02a	Total value of Islamic AuM by asset class
F02b	Total value of Islamic AuM by type of fund

493. This chapter covers information on the Islamic capital market. ICM covers three diverse areas: (a) *sukuk*; (b) Sharī'ah-compliant equities that provide investors with ownership rights over the issuing entities; and (c) Islamic funds, which pool funds from investors in order to make investments and earn returns that are shared with the investors.

494. ICM provides quite a broad coverage of Islamic finance. In addition to covering funding by issuing securities, the inclusion of investment funds encompasses funding raised by two common types of financial sector institutional units – money market funds (MMF) and non-MMF investment funds.[39,40]

[39] See the appendix to this Guide for descriptions of MMFs and other types of investment funds.

[40] ICM coverage of both securities and investment funds can mean that separate data collection procedures might be needed to obtain full coverage of ICM, including the possibility that different agencies might be tasked to collect the data. Countries should consider the relative benefits and costs of compiling the different types of data in prioritising their statistical programs. One important consideration might be a need to compile data on MMFs because of their common role as a type of monetary policy institution.

495. Data on securities issuance are also compiled by the IMF, the BIS and ECB, as summarised in their joint *Handbook on Securities Statistics* (2015). The *Handbook* provides a framework for collection of data on debt and equity securities, but unlike the ICM definition does not cover investment fund shares. However, the *Handbook* includes an annex on Islamic securities which describes *ṣukūk*, Islamic collective investment schemes (investment funds), Sharī'ah-compliant equities, and indexes for *ṣukūk* and Sharī'ah-compliant equities. Although these instruments are described in the annex, a specific framework for compiling data for them is not provided.

496. Only three measures are requested for ICM, which will provide a broad picture of activity in the market. For each, specific sub-schedules are provided that break down the information in various ways needed to analyse the markets. k

Ṣukūk

- Total number of *sukuk* issued
- Total value of *sukuk* issued
- Total value of *sukuk* outstanding
- Total value of *sukuk* default
- Total value of *sukuk* restructuring

Sharī'ah-compliant equities

- Total value of Sharī'ah-compliant equities

Islamic funds

- Total number of Islamic funds
- Total value of assets under management (AuM)

8.2 Aggregation and Consolidation of Data

497. Aggregation is the summation of positions, transactions, revaluations or other changes in the value of assets and liabilities for institutional units belonging to a specific sector or subsector of an economy.

498. Consolidation involves the elimination of positions, transactions, revaluations, and other changes in the value of assets and liabilities between institutional units belonging to the same group. Consolidation can be applied at various levels of compilation.

499. Compilation of ICM data uses an unconsolidated presentation. This guide recommends the summation of gross positions, transactions, revaluations, and other changes in the value of assets and liabilities of institutional units belonging to a sector or subsector vis-à-vis all institutional units belonging to the same sector or subsector of an economy. For example, purchases by banks of *sukūk* issued by other banks are included in the ICM data. The *Handbook on Securities Statistics* recommends the presentation of data on debt security holdings on an unconsolidated basis.

8.3 Detailed Definitions of Prudential and Structural Indicators for the Islamic Capital Markets

Ṣukūk

S01 Total number of *sukūk* issued
Definition: The indicator refers to the total number of *sukūk* issued in the reporting jurisdiction during the indicated reporting period. Reporting of this indicator should be based on the country of issuance; that is. the number of *sukūk* issued should be reported based on the country in which the *sukūk* is issued, regardless of the residency status or domicile of the issuer to avoid double counting of *sukūk* that are issued in countries other than the country of residence of the issuer, in global aggregates generated from this data. Jurisdictions should include data for both domestic and cross-border issuances in that jurisdiction. If a bank establishes a permanent subsidiary in a financial centre (Dubai, Malaysia, etc.) that issues *ṣukūk* in its own name and maintains its own financial accounts, then transfers receipts to the parent company, issuance should be deemed to be in the country where the subsidiary issued the *sukūk*. Similarly, SPVs or unincorporated branches that issue *ṣukūk* in the name of their parent should record the issuance as being in the country where the issuance took place, rather than that of the parent. The AAOIFI[41] defines *sukūk* as certificates of equal value representing undivided shares in ownership of tangible assets, usufruct and services or (in the ownership of) the assets of a particular project or special investment activities. These assets could be in a specific project or specific investment activity that is Sharīʿah-compliant. *Ṣukūk* may sometimes be offered in some jurisdictions without mention of the term "*sukūk*". The compilation of data for this indicator should apply to any instrument that is a *sukūk* or would appear to be a *sukūk* based on the characteristics defined above, irrespective of the terminology used. **Frequency of reporting:** For all indicators related to *sukūk*, data may be compiled on a semi-annual or annual basis. Reporting of data on a semi-annual basis is preferred. The number of *sukūk* issued during a specific period should be reported, and should not be reported on an annualised basis. **Data sources:** Supervisory data, financial accounting data or securities exchange data. **Aggregation and consolidation:** The indicator should be calculated on an aggregation basis.

S01a Total number of *sukūk* issued by currency of denomination
Definition: The indicator refers to the number of *sukūk* issued during the reporting period by the currency of denomination based on the following: A. US dollar denominated *sukūk* B. Local currency denominated *sukūk*

[41] AAOIFI Sharīʿah Standard No. 17: *Investment Ṣukūk*, 2015, p. 468.

C. *Ṣukūk* issued in other currencies (specify the currency of denomination and the corresponding value of *sukūk* issued)

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S01b Total number of *sukūk* issued by type of issuer

Definition: The indicator refers to the total number of *sukūk* issued during the reporting period categorised by type of issuer, under the categories defined below.

A. **Sovereign**: *Ṣukūk* issued by the national government, sub-national government and central bank.
B. **Government-related entity**: *Ṣukūk* issued by government-linked corporations or state-owned enterprises (e.g. sovereign wealth funds).
C. **Corporate**: *Ṣukūk* issued by corporate or private institutions.
D. **Banks:** *Ṣukūk* issued by banks (other than the central bank).
E. **Takaful/insurance**
F. **Multilateral/international organisation**: *Ṣukūk* issued by multilateral institutions or international organisations (e.g. Islamic Development Bank, International Islamic Liquidity Management Corporation, etc.) including issuance by regional organisations (e.g., Gulf Cooperation Council).
G. **Non-resident:** Any of the above-listed type of *sukūk* issued by non-residents in the domestic economy (other than the international or regional organisations noted above).

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S01c Total number of *sukūk* issued by economic sector

Definition: The indicator refers to the total number of *sukūk* issued during the reporting period categorised by economic sector:[42]

A. Agriculture, forestry and fishing
B. Mining and quarrying
C. Manufacturing
D. Power and utilities
E. Construction
F. Wholesale and retail trade, accommodation and food services
G. Transportation, storage, information and communication
H. Financial and insurance activities
I. Real estate activities
J. Public administration and defence; compulsory social security
K. Education, health and social work activities

[42] The classification used is based on ISIC, but in sub-composites to suit compilation of ICM data.

L. Other service activities
M. Households
N. Activities of international and regional organisations and bodies, including issuance of extraterritorial bodies

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S01d Total number of *sukūk* issued by type of Sharī'ah-compliant contract

Definition: The indicator refers to the total number of *sukūk* issued, categorised by the type of underlying Sharīʿah contract[43] used in structuring the *sukūk*. This may be according to the categories listed below.

A. Ijārah
B. Murābahah
C. Mudārabah
D. Mushārakah
E. Salam
F. Wakālah
G. Hybrid (a combination of any two or more of the independent structures in a *sukūk* issuance)
H. Others

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S01e Total number of *sukūk* issued by use of proceeds

Definition: The indicator refers to the total number of *sukūk* issued, classified by the principal purposes for which the net proceeds from the *sukūk* are intended to be used and not the ultimate beneficiary. This may be according to the categories listed below.

A. **Working capital:** Intended use of issue proceeds is working capital, with no explicit commitment to specific assets or projects.
B. **Refinancing:** Intended use of issue proceeds is to refinance outstanding debt.
C. **Capital expenditure:** Intended use of issue proceeds is an explicit commitment to capital expenditures.
D. **Infrastructure:** Intended use of issue proceeds is to finance specific infrastructure development projects.
E. **Project finance:** Capital raised for use in specific projects or investments (real estate, mining venture, product development, etc.)
F. **Others**

[43] The operational definition of each contract as used in this Compilation Guide is based on the IFSB Sharīʿah Board's approved glossary of terminologies available at https://www.ifsb.org/terminologies.php.

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S01f Total number of *sukūk* issued by tenor

Definition: This indicator refers to the total number of *sukūk* issued classified by its tenor/maturity period. This may be according to the categories listed below.

A. <12 months
B. 1–5 years
C. >5 years
D. Perpetual

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S02 Total value of *sukūk* issued

Definition: The indicator refers to the total value of *sukūk* issued, reported in local currency value and US dollar equivalent.

Reporting of this indicator should be based on the country of issuance; that is, the number of *sukūk* issued should be reported based on the country in which the *sukūk* is issued, regardless of the residence status or domicile of the issuer to avoid double counting of *sukūk* that are issued in countries other than the country of residence of the issuer, in global aggregates generated from this data. Jurisdictions should include data for both domestic and cross-border issuances in that jurisdiction.

A note should be taken that *sukūk* may sometimes be offered in some jurisdictions without mention of the term "*sukūk*" in the offering material.

Compilation of data for this indicator should apply to any instrument that is a *sukūk* or would appear to be a *sukūk* based on the characteristics defined above, irrespective of the terminology used.

Indicative exchange rates used for conversion into US dollars should be provided for reporting purposes.

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S02a Total value of *sukūk* issued by currency of denomination

Definition: The indicator refers to the total value of *sukūk* issued by the currency of denomination, expressed in local currency and US dollar equivalent.

A. US dollar denominated
B. Local currency denominated
C. *Ṣukūk* issued in other currencies (specify the currency of denomination and the corresponding value of *sukūk* issued)

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S02b Total value of *sukūk* issued by type of issuer

Definition: The indicator refers to the total value of *sukūk* issued categorised by type of issuer, expressed in US dollars and in its local currency equivalent under the categories defined below.

A. **Sovereign**: *Ṣukūk* issued by the national government (including sub-national governments) and central banks.
B. **Government-related entity**: *Ṣukūk* issued by government-linked corporations or state-owned enterprises.
C. **Corporate**: *Ṣukūk* issued by corporate or private institutions.
D. **Banks:** *Ṣukūk* issued by banks (other than the central bank).
E. **Takaful/insurance**
F. **Multilateral/international organisation**: *Ṣukūk* issued by multilateral institutions or international organisations (e.g. Islamic Development Bank, International Islamic Liquidity Management Corporation, etc.).
G. **Non-resident:** Any type of *sukūk* listed above issued by non-residents in the domestic economy (other than the international or regional organisations noted above).

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S02c Total value of *sukūk* issued by the economic sector

Definition: The indicator refers to the total value of *sukūk* issued, expressed in US dollars and in its local currency equivalent, categorised by economic sector.

A. Agriculture, forestry and fishing
B. Mining and quarrying
C. Manufacturing
D. Power and utilities
E. Construction
F. Wholesale and retail trade, accommodation and food services

G. Transportation, storage, information and communication
H. Financial and insurance activities
I. Real estate activities
J. Public administration and defence; compulsory social security
K. Education, health and social work activities
L. Other service activities
M. Households
N. Activities of international and regional organisations and bodies, including issuance of extraterritorial organisations

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S02d	**Total value of *sukūk* issued by type of Sharī'ah-compliant contract**

Definition: The indicator refers to the total volume of *sukūk* issued, expressed in US dollars and in its local currency equivalent, categorised by the type of underlying Sharīʿah contracts used in structuring *sukūk*. This may be according to the categories listed below.

A. Ijārah
B. Murābahah
C. Mudārabah
D. Mushārakah
E. Salam
F. Wakālah
G. Hybrid (a combination of any two or more of the independent structures in a *sukūk* issuance)
H. Others

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

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S02e	**Total value of *sukūk* issued by use of proceeds**

Definition: The indicator refers to the total value of *sukūk* issued, classified by the principal purposes for which the net proceeds from the *sukūk* are intended to be used and not the ultimate beneficiary. This may be according to the categories listed below.

A. **Working capital:** Intended use of issue proceeds is working capital, with no explicit commitment to specific assets or projects.
B. **Refinancing:** Intended use of issue proceeds is to refinance outstanding debt.
C. **Capital expenditure:** Intended use of issue proceeds is an explicit commitment to capital expenditures.
D. **Infrastructure:** Intended use of issue proceeds is to finance specific infrastructure development projects.

E. **Project finance:** Capital raised for use in specific projects or investments (real estate, mining venture, product development, etc.).
F. **Others**

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S02f Total value of *sukūk* issued by tenor

Definition: This indicator refers to the total volume of *sukūk* issued classified by the tenor/maturity period of the *sukūk* expressed in US dollars and in its local currency equivalent. This may be according to the categories listed below.

A. <12 months
B. 1–5 years
C. >5 years
D. Perpetual

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S03 Total value of *sukūk* outstanding

Definition: The indicator refers to the total value of *sukūk* outstanding expressed in US dollars and in its local currency equivalent.

Reporting of this indicator should be based on the country of issuance; that is, the number of *sukūk* issued should be reported based on the country in which the *sukūk* is issued, regardless of the residency status or domicile of the issuer to avoid double counting of *sukūk* that are issued in countries other than the country of residence of the issuer, in global aggregates generated from this data. Jurisdictions should include data for both domestic and cross-border issuances in that jurisdiction.

If a bank establishes a permanent subsidiary in a financial centre (Dubai, Malaysia, etc.) that issues *ṣukūk* in its own name and maintains its own financial accounts, then transfers receipts to the parent company, issuance should be deemed to be in the country where the subsidiary issued the *sukūk*. Similarly, SPVs or unincorporated branches that issue *ṣukūk* in the name of their parent should record the issuance as being in the country where the issuance took place, rather than that of the parent.

S03a Total value of *sukūk* outstanding by currency of denomination

Definition: The indicator refers to the total volume of *sukūk* outstanding by the currency of denomination, expressed in US dollars and in its local currency equivalent.

A. US dollar denominated

B. Local currency denominated
C. *Ṣukūk* outstanding in other currencies (specify the currency of denomination and corresponding volume of *sukūk* outstanding)

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S03b Total value of *sukūk* outstanding by type of issuer

Definition: The indicator refers to the total amount of *sukūk* outstanding at the end of the reporting period, expressed in local currency and its US dollar equivalent, categorised by type of issuer under the categories defined below.

A. **Sovereign**: *Ṣukūk* issued by the national government (including sub-national governments) and central banks.
B. **Government-related entity**: *Ṣukūk* issued by government-linked corporations or state-owned enterprises (e.g. sovereign wealth funds).
C. **Corporate**: *Ṣukūk* issued by corporate or private institutions.
D. **Banks:** *Ṣukūk* issued by banks (other than the central bank).
E. **Takaful/insurance**
F. **Multilateral/international organisation**: *Ṣukūk* issued by multilateral institutions or international organisations (e.g. Islamic Development Bank, International Islamic Liquidity Management Corporation, etc.), including issuance by regional organisations (EAC, GCC, etc.).

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S03c Total value of *sukūk* outstanding by economic sector

Definition: The indicator refers to the total amount of *sukūk* outstanding at the end of the reporting period, expressed in local currency and its US dollar equivalent, categorised by economic sector.

A. Agriculture, forestry and fishing
B. Mining and quarrying
C. Manufacturing
D. Power and utilities
E. Construction
F. Wholesale and retail trade, accommodation and food services
G. Transportation, storage, information and communication
H. Financial and insurance activities
I. Real estate activities
J. Public administration and defence; compulsory social security
K. Education, human health and social work activities

L. Other service activities
M. Households
N. Activities of international and regional organisations and bodies, including issuance of extraterritorial bodies

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S03d Total value of *sukūk* outstanding by type of Sharī'ah-compliant contract

Definition: The indicator refers to the total amount of *sukūk* outstanding at the end of the reporting period, categorised by the type of underlying Sharīʿah contract used in structuring *sukūk*, expressed in local currency and its US dollar equivalent. This may be according to the categories listed below.

A. *Ijārah*
B. *Murābahah*
C. *Mudārabah*
D. *Mushārakah*
E. *Salam*
F. *Wakālah*
G. Hybrid (a combination of any two or more of the other independent structures in *sukūk* issuance)
H. Others

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S03e Total value of *sukūk* outstanding by use of proceeds

Definition: This indicator refers to the total amount of *sukūk* outstanding at the end of the reporting period, classified by the principal purposes for which the net proceeds from the *sukūk* are intended to be used and not the ultimate beneficiary, expressed in local currency and its US dollar equivalent. This may be according to the categories listed below or others.

A. **Working capital:** Intended use of issue proceeds is an explicit commitment to capital expenditures.
B. **Refinancing:** Intended use of issue proceeds is to refinance outstanding debt.
C. **Capital expenditure:** Intended use of issue proceeds is working capital, with no explicit commitment to specific assets or projects.
D. **Infrastructure:** Intended use of issue proceeds is to finance specific infrastructure development projects.

E. **Project finance:** Capital raised for use in specific projects or investments (real estate, mining venture, product development, etc.).
F. **Others** (specify and define).

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S03f Total value of *sukūk* outstanding by tenor

Definition: The indicator refers to the total amount of *sukūk* outstanding at the end of the reporting period, expressed in local currency and its US dollar equivalent, classified by the tenor/maturity period of the *sukūk* according to the categories defined below or other categories which should be specified and defined.

A. <12 months
B. 1–5 years
C. >5 years
D. Perpetual

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S04 Total value of *sukūk* restructuring

Definition: The indicator refers to the total volume of *sukūk* that have been restructured in respective years, expressed in local currency and its US dollar equivalent.

Reporting of this indicator should be based on the country of issuance; that is, the number of *sukūk* issued should be reported based on the country in which the *sukūk* is issued, regardless of the residency status or domicile of the issuer to avoid double counting of *sukūk* that are issued in countries other than the country of residence of the issuer, in global aggregates generated from this data. Jurisdictions should include data for both domestic and cross-border issuances in that jurisdiction.

Indicative exchange rates used for conversion into US dollars should be provided for reporting purposes.

S04a Total value of *sukūk* restructuring by type of issuer

Definition: The indicator refers to the total amount of *sukūk* that have been restructured during the reporting period, expressed in local currency and its US dollar equivalent, categorised by type of issuer under the categories defined below.

A. **Sovereign**: *Ṣukūk* issued by the national government (including sub-national governments) and central banks.
B. **Government-related entity**: *Ṣukūk* issued by government-linked corporations or state-owned enterprises.

C. **Corporate**: *Ṣukūk* issued by corporate or private institutions.
D. **Banks:** *Ṣukūk* issued by banks (other than the central bank).
E. ***Takaful*insurance**
F. **Multilateral/international organisation**: *Ṣukūk* issued by multilateral institutions or international organisations (e.g. Islamic Development Bank, International Islamic Liquidity Management Corporation, etc.).
G. **Non-resident:** Any of the above-listed types of *sukūk* issued by non-residents in the domestic economy (other than the international or regional organisations noted above).

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S04b Total value of *sukūk* restructuring by economic sector

Definition: The indicator refers to the total amount of *sukūk* that have been restructured during the reporting period, expressed in local currency and its US dollar equivalent, categorised by economic sector.

A. Agriculture, forestry and fishing
B. Mining and quarrying
C. Manufacturing
D. Power and utilities
E. Construction
F. Wholesale and retail trade, accommodation and food services
G. Transportation, storage, information and communication
H. Financial and insurance activities
I. Real estate activities
J. Public administration and defence; compulsory social security
K. Education, human health and social work activities
L. Other service activities
M. Households
N. Activities of international and regional organisations and bodies, including issuance of extraterritorial bodies

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S05 Total value of *sukūk* default

Definition: The indicator refers to the total amount of *sukūk* that have defaulted in the current period, expressed in local currency and its US dollar equivalent.

Reporting of this indicator should be based on the country of issuance; that is, the value of *sukūk* issued should be reported based on the country in which the *sukūk* is issued, regardless of the residency status or domicile of the issuer to avoid double counting of *sukūk* that are issued in countries other than the country of residence of the issuer, in global aggregates generated from this data. Jurisdictions should include data for both domestic and cross-border issuances in that jurisdiction.

Indicative exchange rates used for conversion into US dollars should be provided for reporting purposes.

S05a Total value of *sukūk* default by type of issuer

Definition: The indicator refers to the total amount of *sukūk* that have defaulted in the current period, expressed in local currency and its US dollar equivalent, categorised by type of issuer under the categories defined below.

A. **Sovereign**: *Ṣukūk* issued by the national government (including sub-national governments) and central banks.
B. **Government-related entity**: *Ṣukūk* issued by government-linked corporations or state-owned enterprises.
C. **Corporate**: *Ṣukūk* issued by corporate or private institutions.
D. **Banks:** *Ṣukūk* issued by banks (other than the central bank).
E. ***Takaful*/insurance**
F. **Multilateral/international organisation**: *Ṣukūk* issued by multilateral institutions or international organisations (e.g. Islamic Development Bank, International Islamic Liquidity Management Corporation, etc.).
G. **Non-resident:** Any of the above-listed types of *sukūk* issued by non-residents in the domestic economy (other than the international or regional organisations noted above).

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

S05b Total value of *sukūk* default by economic sector

Definition: The indicator refers to the total amount of *sukūk* that have defaulted in respective years, expressed in local currency and its US dollar equivalent, categorised by economic sector.

A. Agriculture, forestry and fishing
B. Mining and quarrying
C. Manufacturing
D. Power and utilities
E. Construction
F. Wholesale and retail trade, accommodation and food services
G. Transportation, storage, information and communication
H. Financial and insurance activities
I. Real estate activities
J. Public administration and defence; compulsory social security

K. Education, human health and social work activities
L. Other service activities
M. Households
N. Activities of international and regional organisations and bodies, including issuance of extraterritorial bodies

Reporting of this indicator should be based on the country of issuance of the *sukūk*, including both domestic and cross-border issuances.

SHARI'AH-COMPLIANT EQUITIES

E01 Sharīʻah-compliant equities

Definition: This indicator refers to listed equity securities that are classified as Sharīʻah-compliant in a jurisdiction, where the corporation's activities are not related to non-compliant business activities or its participation is below the financial ratios outlined by applicable Sharīʻah rules and principles. Sharīʻah-compliant equities are identified by various jurisdictions using a Sharīʻah screening process.

Indicators of Sharīʻah-compliant equities focus on the total number and size of the equities market on organised exchanges that are considered Sharīʻah-compliant because the issuing company does not engage in activities considered non-compliant. In a broad sense, equity investment is permissible and encouraged in Islamic finance except when prohibited activities are funded. Thus, in effect, this item potentially covers the full equity market in listed exchanges within a country, less any issues that have been determined to be non-compliant through a Sharīʻah-screening process.

Because corporations often engage in a range of activities that individually might or might not be Sharīʻah-compliant, the suitability of corporate equity issues might be measured using a Sharīʻah-screening process that often applies business activities benchmarks that define the maximum permissible amount of non-permissible activities in which the company can engage, as well as financial ratios that define the level of interest-bearing deposits and interest-bearing debts. Without standards for determining the Sharīʻah-compliance of equity issues, investors might be limited in investing broadly in equity markets, with potential implications for their ability to diversify holdings, adopt diverse investment strategies, and engage in cross-border transactions.

In 2004, the AAOIFI developed a screening process (AAOIFI Sharīʻah Standard 21 – Financial Papers) that applies five filters to demonstrate whether an equity issue is compliant. The first filter looks at the main business activity of the company to determine if it is prohibited. In addition to prohibition of specific activities, prohibited activities also include investment in firms that have earning interest income as a main activity, which in effect prohibits equity investment of Islamic financial institutions in many types of conventional financial enterprises.

Subsequent filters look at ratios in corporations' income statements and balance sheets to determine the degree of compliance with Sharīʻah standards. The second filter looks at the degree of non-compliant income generated (such as from interest-bearing instruments) in relation to total income, which in principle should be zero, but can be as much as 5% per AAOIFI. Other filters put limits on the amounts of interest-generating deposits, holding of interest-earning debt, and illiquid assets. (In principle, any earnings from prohibited activities and interest income distributed as

dividends should be purified and given to charity – the percentage of dividends received that should be given to charity equals income from prohibited activities and interest/total earnings.)

The AAOIFI standards have established a general Sharīʻah-screening model that is adapted to various degrees by several countries. However, they have not been universally adopted, and national regulations or Sharīʻah boards can apply varying standards to determine compliance. Also, several financial major index providers (Dow-Jones, FTSE and others) broadly follow a similar model for indices they prepare on Sharīʻah-compliant equities. These indices are typically applied to global databases of traded equities to identify the extent of the market and returns.

In some countries, there might not be any general method to identify such securities, in which case it would be the responsibility of individual investors or their advisors to identify such issues. In this case, there may be no statistical method available to measure the size of the Sharīʻah-compliant equity market.

In other countries, more general standards may be developed – for example, in rules set by bank regulators, rules on permissibility of securities investments by Sharīʻah-compliant insurance or pension funds, rulings by national Sharīʻah boards, designations by organised exchanges, identification by listing firms, etc. These methods are likely to vary considerably between countries, and therefore it is important to describe in metadata the methods used to identify the Sharīʻah-compliant equities in a jurisdiction.

To some extent, this indicator parallels information in questions F01b and F02b on equity investment made by Islamic fund management companies. Instead of looking at the total market, those questions look at actual holdings of Sharīʻah-compliant equities by formally organised investment funds that are classified as investing in equities or are exchange-traded funds.

Frequency of reporting: All the indicators related to the Sharīʻah-compliant equities data may be compiled on a semi-annual or annual basis. Reporting of data on a semi-annual basis is preferred.

Data sources: Supervisory data, financial accounting data or securities exchange data.

Aggregation and consolidation: Each Sharīʻah-compliant equities indicator should be calculated on an aggregation basis.

E01a	**Sharīʻah-compliant equities issued by economic sector**

Definition: This indicator refers to the value of listed Sharīʻah-compliant equities issued, classified by economic sector.

A. Agriculture, forestry and fishing
B. Mining and quarrying
C. Manufacturing
D. Power and utilities
E. Construction
F. Wholesale and retail trade, accommodation and food services
G. Transportation, storage, information and communication
H. Financial and insurance activities
I. Real estate activities
J. Public administration and defence; compulsory social security
K. Education, human health and social work activities
L. Other service activities
M. Households

N. Activities of international and regional organisations and bodies, including issuance of extraterritorial bodies.

E01b	Total number of Sharī‘ah-compliant equities

Definition: This indicator refers to the number of listed Sharīʿah-compliant equities in a jurisdiction as at when the data are compiled. This indicator should be reported on a cumulative basis, reflecting the addition of the reporting period's to the previously reported number of Sharīʿah-compliant equities.

SHARĪ‘AH-COMPLIANT FUND MANAGEMENT

F01	Total number of Islamic funds

Definition: The indicator refers to the total number of funds established and managed in accordance with Sharī‘ah rules and principles.

It does not include pension funds and funds established by *takaful* operators (if they are attached to any *takaful* policy such as retirement or education plans that are irredeemable until a certain period of maturity) and pension funds.

Frequency of reporting: For all the Islamic funds indicators, data may be compiled on a semi-annual or annual basis. Reporting of data on a semi-annual basis is preferred.

Data sources: Supervisory data or financial accounting data or securities exchange data.

Aggregation and consolidation: Each Islamic funds indicator should be calculated on an aggregation basis.

F01a	Total number of Sharī‘ah-compliant funds by asset class

Definition: The indicator refers to the total number of Sharīʿah-compliant funds categorised by asset classes according to the following categories.

A. Equities
B. Ṣukūk
C. Commodities
D. Real estate
E. Others (specify and define)

F01b	Total number of Islamic funds by type of fund[44]

Definition: The indicator refers to the total number of Islamic funds categorised by type of fund according to the following:

A. Unit trust/mutual fund
B. Private retirement fund
C. Wholesale fund
D. Exchange-traded fund
E. Real estate investment trust
F. Others (specify and define)

F02	Islamic assets under management

Definition: The indicator refers to the total market value of assets in Islamic funds, including funds raised in markets and own funds of fund managers.

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F02a	Islamic assets under management by asset class

Definition: The indicator refers to the total value of Sharīʿah-compliant assets under management categorised by asset classes according to the following categories.

A. Equities
B. Fixed income
C. Money markets
D. Commodities
E. Real estate
F. Others (specify and define)

F02b	Islamic assets under management by type of funds

Definition: The indicator refers to the total value of Sharīʿah-compliant assets under management categorised by type of fund according to the following:

A. Unit trust/mutual fund
B. Private retirement fund
C. Wholesale fund
D. Exchange-traded fund
E. Real estate investment trust
F. Others (specify and define)

[44] A fund with more than one asset class would report proportional representation of each class in its combined fund as at the reporting period, regardless of whether the asset allocation is fixed (balanced funds) or will change in due course (target-date funds). Or it may be classified as 'others', with definition and specification as may be appropriate.

CHAPTER 9: METADATA FOR PRUDENTIAL AND STRUCTURAL INDICATORS

9.1 Classifications of Metadata

500. PSIFIs data are supplemented with metadata to enable users to understand the underlying methodologies. While the quantitative information provided by the PSIFIs is useful in assessing the financial condition of IIFS, it is not alone sufficient to support comprehensive analysis, particularly for comparison with other national data and for constructing global aggregates. In addition, since there are likely to be deviations between a country's compilation methodology and recommendations in this Guide, as well as among different countries' compilation practices, the production of detailed metadata is essential to avoid inappropriate comparisons of differently constructed data.

501. Additional information is required, in addition to the PSIFIs indicators, to properly assess the Islamic banking system and produce statistics that are largely comparable. This includes, among other things, information on the types of data sources used to construct the PSIFIs; the consolidation and aggregation methodologies used in compilation of sector-wide data; the various accounting rules applied; and the applicable supervisory regulations implemented in the respective jurisdictions.

9.2 Specific Statistical Metadata Items for PSIFIs

Regulatory Standards

502. The indicators related to supervisory or regulatory ratios need to be accompanied by metadata indicating the Basel standard used by the respective jurisdiction, as well as if IFSB standards are being implemented. PSIFI-compiling countries are at different stages in the implementation of Basel standards (Basel I, II or III) or in transition from Basel II to III, which needs to be indicated in the metadata. In cases where a country may be applying a mix of Basel rules during the transition stage, the Basel version being used may be classified as Mixed Basel. Metadata should include information on the dates of effective transition between Basel standards, or shifts affecting major features of the standards, as such changes may affect the historical data series.

Data Sources

503. Compilers may rely on various data sources for compilation of the PSIFIs data, including supervisory data, financial accounts, monetary and financial statistics, national accounts, data from exchanges or professional associations, or other relevant sources. The metadata should specify the source for compilation of the underlying series for each indicator.

Consolidation

504. For compilation of data on banking and near-banking institutions for calculating the PSIFIs, compilers may use one of several methods recommended in this Guide for the consolidation approach. Compilers should specify in the metadata the approach used for consolidation of the PSIFIs data, which may be on a domestically consolidated, cross-border domestically controlled, or cross-border domestically incorporated basis as defined in this Guide. If any other

method is used by the country compiler, it should also be clearly defined and described within the metadata.

Control

505. To provide a clearer picture of the reporting population and consolidation methodology used, definitions of control are required. Control is established through ownership of more than half of the voting shares, or through otherwise controlling more than half of the shareholder voting power. Control could also be established with ownership of less than half the voting shares, through, for example, special legislation, decree or regulation. Banking and near-banking IIFS are defined as foreign controlled if they are subsidiaries or branches of a foreign parent IIFS. Foreign-controlled IIFS, in addition to supervision by the host supervisory authority, are subject to supervision by their parent supervisory authority. This criterion should be taken into account where there is uncertainty as to the classification of an IIFS as foreign controlled. All other deposit takers are to be classified as domestically controlled. Domestically controlled IIFS should also be classified under two distinct categories – that is, private or government/public sector. If IIFS fall under any categories other than those described above, they should be clearly stated and defined in the metadata.

506. IFRS 10 through IFRS 12 provide a new definition of control under which an enterprise consolidates subordinate entities or accounts into its financial accounts if it exercises effective management control over them and that control can affect the income of the higher-level enterprise. Also, partially owned subsidiaries must be consolidated into the accounts of the enterprise that most effectively controls them. The new definition encompasses the traditional ownership criteria, but can result in consolidation of additional subordinate entities; as such, compilers should describe any such entities consolidated into the accounts in metadata.

Aggregation

507. "Aggregation" refers to the summation of data on gross positions or flows. Under the aggregation approach, the total positions and flows data for any group of reporting units are the sum of the gross information for all individual units in the group.

508. Compilers should classify in the metadata the group of reporting units included in the aggregation, according to the following categories: stand-alone Islamic banks; Islamic subsidiaries of conventional banks (domestic and foreign-controlled); windows only; conventional parent bank (which refers to the activities of the Islamic window's parent bank only); mixed data for windows and their conventional bank parent (where the aggregate data are inclusive of the activities of both the Islamic window and the parent bank); or others which must be stated in the metadata and defined in the notes.

Accounting Standard

509. As discussed in Chapter 3, data compilation for PSIFIs draws on financial accounting statements of IIFS. Accounting and reporting principles applied by IIFS in reporting to RSAs may vary depending on jurisdictional requirements, reflecting national (or international) accounting frameworks that carry implications for the comparability of PSIFIs data. To enable correct interpretation of the data, the metadata should clarify the accounting standard being applied by the IIFS in the jurisdiction. These may be AAOIFI, IFRS, GAAP or other internationally acceptable accounting standards, or a mixture of the aforementioned standards. Specific important features of national accounting standards that can affect PSIFIs should also be mentioned separately in metadata.

Sharī'ah Compliance

510. The PSIFIs represent Sharī'ah-compliant activities of Islamic banks and Islamic banking windows of conventional banks. The metadata should indicate whether the data being reported represent only Sharī'ah-compliant activities of IIFS or mixed activities, which may vary, based on national practices.

511. The complete list of classifications of metadata to be reported, along with the PSIFIs data forms and their definitions, are provided in Table 9.1. To reflect evolving market, supervisory and accounting conditions, the PSIFI and DFS reporting forms might evolve over time to include additional metadata categories.

512. Reported metadata can change over time to reflect changes in standards and compilation practices. Changes in applicable metadata should be reported for each relevant time period.

Table 9.1: Metadata Classifications

Category	Definition of category	Classifications
Basel version	The Basel standard applied by IIFS in the jurisdiction. For phased-in implementation, report the standard(s) that correspond to each reported period.	– Basel I – Basel II – Basel III – Mixed Basel
IFSB formula	The IFSB standard being applied by IIFS in the respective jurisdiction. For phased-in implementation, report the standard(s) that correspond to each reported period.	– IFSB standard – IFSB supervisory discretion – Others
Periodicity	Frequency of compilation of the data.	– Annual – Semi-annual – Quarterly – Monthly – Other (specify)
Currency	The currency in which the data are reported.	– National currency – Special Drawing Rights – US dollar – Other (specify)
Units	The unit of observation or measurement for which data are collected or derived.	– Billions – Millions – Thousands – General (1, 2, 3, etc.…)
Data source	The sources for compilation of the PSIFIs data.	– Supervisory – Financial accounts – Monetary and financial statistics – National accounts – Other
Consolidation	Consolidation is the process that takes data from different systems, entities (and possibly	– Cross-border domestically controlled basis (CBDC)

	formats) and combines that information to create a unified view. Transactions and positions between members of the consolidated group are eliminated. This category indicates the consolidation basis used by the individual reporting entities submitting PSIFI data.	– Cross-border domestically incorporated (CBDI) – Domestically consolidated (DC) data – Other
Aggregation	Aggregation is the addition of data from multiple units. This category specifies the entities included in the aggregation.	– All Islamic banking institutions (stand-alone Islamic banks, and windows) – Stand-alone Islamic banks – Windows – Other
Structure	The structure of IIFS	– Bank as separate corporation – Consolidated organisation (head office, bank, and all branches and subsidiaries) – Holding company – Islamic window or Islamic banking branch of conventional bank – Other
Control	This category specifies whether the PSIFIs' reporting institutions are domestic privately controlled, or domestic government-controlled, or foreign subsidiaries, etc.	– Domestic (private) – Domestic (government or public sector) – Foreign – Other
Accounting standard	The accounting standard being applied by the IIFS in the jurisdiction.	– Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) – International Financial Reporting Standards (IFRS) – Generally Accepted Accounting Principles (GAAP) – Other
Sharī'ah compliance	This category indicates whether the data represent only Sharī'ah-compliant activities of IIFS, or mixed activities, which may vary based on national practices.	– Sharī'ah-compliant – Not Sharī'ah-compliant – Mixed Sharī'ah-compliant and non-compliant
Reporting status	The status of the data being reported, which provides information about the level of finality and reliability of the data. If the data are preliminary, this gives users an indication that the data may be subject to further change or revision.	– New data – Revised – Estimated – Incomplete – Survey – Preliminary – Rebased
Break-in-series	Breaks in statistical time series are significant changes in standards or methods used to prepare data that affect the analysis or use of the data.	– Break in series – Gap in series (no data for designated period)

Data period	The accounting period represented by the data series.	– Annual data (2014A) – Semi-annual data (2014H1) – Quarterly data (2014Q2) – Monthly data (2014M3) – Other (specify)

PART IV: COMPILATION AND DISSEMINATION OF PRUDENTIAL AND STRUCTURAL ISLAMIC FINANCIAL INDICATORS

CHAPTER 10: GUIDANCE ON COMPILATION AND DISSEMINATION

513. This chapter focuses on some of the practical considerations in compilation and dissemination of PSIFIs.

10.1 Compilation of PSIFIs Data

10.1.1 Periodicity and Timeliness

514. "Periodicity" refers to the frequency of compilation of the data; that is, the relevant reporting period covered by a data observation (annual, quarterly, monthly, etc.). "Timeliness" refers to how long it takes to compile or disseminate data after each reference period. The dissemination of PSIFIs data on a frequent and timely basis allows new developments to be identified at an early stage, facilitates comparisons and analysis over time, and supports prompt policy action. The recommended periodicity and timeliness for the compilation of the PSIFIs takes into consideration data availability, ease of compilation and dissemination, and data analysis needs.

515. The Guide recommends collecting and reporting most PSIFIs data on a quarterly basis. The current practice of most PSIFI reporting jurisdictions is that IIFS typically submit data to authorities within four to six weeks after the end of a calendar quarter. Thus, it is assumed that PSIFI data will be available about six weeks after the reference date, and compilation of PSIFIs data by the national lead agency or RSA is encouraged to be within six to eight weeks of the reference date.

516. Regular collection of data by the IFSB will be in accordance with the IFSB's dissemination schedule. Countries are invited to submit data on a quarterly basis for the defined dissemination periods, including the most recently available quarter within six to eight weeks after the end of the last reference quarter.

517. The Guide emphasises the importance of production and dissemination of PSIFIs data with high periodicity and timeliness to ensure the relevance and usefulness of the PSIFIs data in assessing the condition of the IFSI. The dissemination of PSIFIs data on a frequent and timely basis, and for the shortest period possible, is important to enhance the transparency of the Islamic banking sector and to allow early detection of signs of vulnerability.

518. The dissemination of core PSIFIs on a quarterly basis allows new developments to be identified at an early stage and provides time-series data that can be used in concert with other key macro statistics.

519. In general, compilation should not be delayed until completion of audits of the data, which is the practice in some countries. PSIFIs are statistical indicators designed to highlight on a reasonably current basis the key trends affecting financial soundness; timely data are important for conducting analysis, making policy decisions, and supporting private decision making. The data need to be good enough for such analysis and decision making, but do not need to be finalised

through the auditing process in order to be suitable for many analytical and policy purposes.[45] In contrast to the statistical nature of PSIFIs, audited data are needed to help ensure over time the accuracy and honesty of the data, and are used for taxation and to support various regulatory or legal requirements.

10.1.2 Availability of Underlying Data Series

520. Some of the underlying data series, as specified in the Compilation Guide, may not be available to the jurisdiction if the data are not being collected by the RSA or if the data series do not meet the definitions proposed in this Guide. In the event that the data series specified in the Compilation Guide are not currently compiled, national compilers may resort to using data that most closely fit the definitions and principles prescribed in the Guide. However, in such cases, any deviations from the defined underlying data series must be noted and documented in the metadata accompanying the data.

521. Similarly, unavailability of data series for the numerator and denominator of a PSIFI within the same periodicity may limit the frequency of compilation of the PSIFI. The Guide recommends that RSAs consider any need to amend national data collection templates/existing reporting forms, on the basis of data needs for the PSIFIs template, to improve the availability of all sets of underlying data series. While, in the short term, compilers may rely on existing data sources to compile the PSIFIs, this Guide recommends that RSAs plan to improve or develop the additional data series required for PSIFIs.

10.1.3 Aggregation and Consolidation of PSIFIs

522. As discussed in Chapter 4, "aggregation" refers to the summation of data on gross positions or flows from all reporting units within a group. It preserves information on transactions and positions between members of the group and shows total transactions of the group with all non-members of the group.

523. In contrast, "consolidation" refers to the elimination of positions and flows between units that are grouped together for statistical purposes (i.e. all Islamic banks in the jurisdiction).

524. Consolidation and aggregation can be combined for the purpose of compiling data series for use in calculating PSIFIs. For instance, reporting entities might provide consolidated accounts for their own firm, which are then aggregated to create sector totals. On the other hand, it is possible to compile the sector-level data on a consolidated basis; in this case, information on positions and flows among the entities covered in the reporting population must be collected in the primary data so that such positions and flows can be eliminated in the consolidated sector data.

525. PSIFIs data are also aggregated across countries to gain a collective picture of the global Islamic banking industry. For this purpose, country data need to be translated into a common numéraire currency to be aggregated, which is commonly the US dollar. However, the SDR can also be used as the numéraire, with the advantage that as a weighted average of major currencies the SDR is likely to fluctuate less against the reporting currencies, and thus provide a less volatile picture of the evolution of global Islamic finance.

[45] Compilers should be aware that audits can result in significant changes to data, but sometimes with long delays. The changes might be missed in ongoing data reporting procedures. If this is the case, it is important that compilers work with auditors and reporters to devise additional methods to capture changes resulting from audits and to change the reported data as soon as feasible.

10.1.4 Revisions Policy

526. The revision policy may be applied in the review and revision of past periods of PSIFIs data by country compilers, where it is deemed necessary by national authorities to revise data that have already been disseminated locally or through the IFSB website. The fundamental aim of data revision is to improve data quality and thereby improve accuracy. Revisions should be introduced into the published series at the earliest possible opportunity; they should not be held until annual revisions are made or data have been audited.

527. Minor revisions to published data may stem from routine revisions where a change in the published data may come from the regular data production process, such as when new data are received after the publication period which affect the value of the published data, to reflect improved source data, or where data with a shorter periodicity are revised for the purpose of reconciliation with annual data.

528. After completion of an audit, the statistical series used to compile PSIFIs should be routinely revised in the next available reporting period; large revisions due to audits should be highlighted in written metadata.

529. Significantly large revisions should be noted in metadata, along with explanations of the causes of the revision, if known. Major revisions or substantial modifications to the data may occur for the purpose of ensuring consistency with respect to changes in methodologies and classifications, or when new definitions and topics are implemented in accordance with international standards. In the case of any major changes in methodology, advance notice should be given to the IFSB on planned revisions that have been envisaged by the national agency based on local revision policies or plans.

530. Based on the scope of revisions, the extent of methodological changes, the length of time series for which data are revised, and the significance of changes in the data, the national authority is encouraged to provide explanations as footnotes to the published data of the revisions to the previously published PSIFIs data.

531. Countries may provide the revised data series at the same time as the scheduled submission of new quarterly data to the IFSB. Any revisions to back series will be disseminated by the IFSB along with the scheduled formal dissemination of current data.

10.2 Transmission of Data to the IFSB

10.2.1 Reporting Currency

532. The Guide encourages national compilers to report PSIFIs and their underlying data series in national currencies.

533. Conversion of PSIFIs into US dollars, which is the adopted numéraire of the PSIFIs for the purposes of international comparison, will be done by the IFSB using the exchange rates prevailing at the end of each reference period. Country compilers are requested to report the exchange rate for their national currency for each reference period. Market exchange rates should be used based on rates in the most active national market; the mid-point between buy and sell rates should be used to avoid distortions due to taxes or commissions.

10.2.2 Breaks in Series

534. In view of their possible impact on the analysis of time-series data, breaks in series need to be closely monitored and adequately documented. These variations, whether they involve national data compilers or data suppliers, could be due to changes in data, compilation methodology, or policy, which may affect the value of the underlying data series (numerator or denominator) from which PSIFIs are derived. The entrance or departure of data suppliers from the reporting population, for instance, could potentially affect the underlying data series and the calculation of PSIFIs. Any large changes in the number of reporting institutions should be investigated to see if significant breaks in series have occurred, which should be reported in metadata.

10.2.3 Quality and Reliability

535. The quality of the PSIFIs data is of high importance and should be considered from a multidimensional perspective encompassing the entire process involved in PSIFIs compilation, processing and dissemination. Several international frameworks provide best practices and useful measures of data quality against which RSAs' national practices and the quality of the PSIFIs data compilation can be assessed.

536. The IMF's *Data Quality Assessment Framework* (DQAF), which is based upon the UN's *Fundamental Principles of Official Statistics*, provides a comprehensive but flexible framework for assessing data quality. The DQAF comprehensively covers various quality aspects of data collection, processing, and dissemination that are applicable to the PSIFIs.

537. The IMF framework is process-oriented, taking into account the governance of statistical systems, statistical processes and statistical products. The quality assessment structure flows from five main dimensions of data quality and a number of prerequisites that are identified as critical constituents of data quality. The prerequisites of quality comprise institutional preconditions for quality of statistics, including: (i) assurances of integrity, (ii) methodological soundness, (iii) accuracy and reliability, (iv) serviceability (i.e. periodicity and timeliness, consistency, revision policy and practice), and (v) accessibility. For each of the prerequisites and five dimensions, the DQAF provides further elements and indicators that can be used by countries as quality benchmarks, including internationally accepted methodologies against which national practices can be compared/assessed in relative terms.

538. The *Quality Assurance Framework of the European Statistical System* also provides a general output-oriented approach to the assessment of the quality of financial accounts, focusing on the quality of statistical outputs. It defines a list of specific criteria under which the quality of a compilation system and its outputs can be considered, including the following quality dimensions: (i) relevance, (ii) accuracy, (iii) comparability, (iv) coherence (i.e. compatibility of data from different underlying sources), (v) timeliness and punctuality, and (vi) accessibility and clarity.

539. Most of the mentioned data quality aspects are interdependent, and approaches to data quality should be aimed at improving both the processes for data compilation as well as the quality and reliability of data outputs, through established data quality management processes at the agency level.

540. To ensure the reliability of the data, several factors need to be considered, including the source data, the statistical techniques used, and the assessment and validation of statistical outputs. To ensure the accuracy of the data, a number of considerations may be useful, including that the source data reasonably approximate the definitions, scope, classification, and accounting and consolidation methodologies as defined in this Guide.

541. Country compilers have primary responsibility for the quality of data because they have intimate knowledge of the source institutions and data, relevant accounting and legal standards, and methodologies for collecting and compiling the data. Information on data quality can be provided

by national authorities in their documentation of compilation procedures and standards, and by responses of national authorities to queries by the public and the IFSB. Country compilers should forward PSIFIs and their underlying information for publication until they feel that data quality is adequate and the data can be reliably used by the public.

542. The IFSB has data quality responsibility for the collection, processing and dissemination of the country data. The IFSB will routinely review data received from countries to check for large changes or unusual patterns in the data. As needed, the IFSB will confer with countries on any data quality issues that seem to need to be addressed.

10.3 Dissemination of PSIFIs

10.3.1 Scheduling of Releases

543. The IFSB will undertake a regular data collection and review process, with final dissemination of data to the public in accordance with a dissemination schedule set out by the IFSB and communicated to the country coordinators. Reporting countries will be invited to submit data from the last disseminated reference period to the latest reference period for which underlying data sources would already be available to compilers (six to eight weeks after the end of the reference period) to be compiled and submitted to the IFSB.

544. Prior to the release of data to the public, the IFSB follows a comprehensive review and revision process, which involves rigorous and timely communication and cooperation between the country coordinator and the IFSB Secretariat to enable efficient resolution of any queries on data and timely publication of data according to scheduled release dates.

10.3.2 Content of Releases

545. The PSIFI data are published in the form of country-wise data for all available historical time series up to the latest reporting period, as well as corresponding metadata, which describes compilation methods and country-specific information. The published PSIFIs differentiate between the data for Islamic banking and that for Islamic banking windows of conventional banks.

546. The IFSB also releases aggregated data for the latest reporting period, as well as key exhibits providing a picture of the information and observable trends of the most recently released data. Over time, with significant compilation of data, periodic volumes may be published with time-series data for participating countries, as well as some level of indicator-wise analysis of the data.

10.3.3 Incomplete, Late, or Erroneous Data

547. Reporting RSAs are encouraged to try to improve the completeness of data being reported to the IFSB under the existing PSIFI reporting templates. This should allow for a better picture of the aggregate size and soundness of the Islamic banking sector. At present, incomplete reporting impairs tracking of the total aggregate position of the Islamic banking industry for some of the indicators.

548. The accuracy of the PSIFI data is important to maintain credibility with users of the data, as well as to reflect the real picture of the Islamic banking sector in reporting jurisdictions. The review process before dissemination of data attempts to identify and address any possible errors in the data. However, in cases where countries report only ratios, limited information is available to aid

the review process, which constrains the identification of potential errors or inconsistencies in the data. Therefore, the Guide encourages the provision of underlying series.

549. The Guide also encourages countries to compile the complete set of Detailed Financial Statements for the Islamic banking subsector presented in section 5.1 (detailed financial statements of Islamic banks), subdivided for stand-alone Islamic banks and windows. The added detail about the structure of the finances of the Islamic banking sector will assist the review process and identify erroneous data or inconsistencies and rectify them before release of the data to the public. The balanced accounts within the DFS framework also help to ensure the accuracy of the individual data items used to compile the PSIFIs.

550. Compilers should establish procedures to deal with incomplete current data due to late reporting or non-reporting by a bank, or erroneous data that should not be published. If the missing or erroneous observations are large and severely affect the interpretation of the series, publication of the series should be suspended until the problem is corrected, and the IFSB should be so advised. In other cases, statistical methods might be used to adjust the series to fill in the gaps or supersede problem observations. Methods might include using the last available observation, extrapolating current data from recent observations, using related series, etc. In all such cases, national compilers should consult with the IFSB about the nature of the problem and potential solutions so that a joint decision can be made as to whether to adjust the series or suspend publication. If the affected series are published, observations should be designated as estimated by appending an “e” to the data.

10.3.4 Confidentiality of Data

551. The provision of data to the IFSB by reporting countries is treated as confidential during the data production, processing and review phase, until the reporting agency provides a formal letter of approval signed off by a designated authority permitting dissemination of the final PSIFIs data to the public on the IFSB website, as well as authorising the use of the data by the IFSB for consolidation, reorganisation and publication, in print or digital formats, etc.

10.3.5 Historical and Back Series

552. Historical data and back series may be provided by the respective jurisdictions where the data are available for previous reporting periods. For countries that join the PSIFIs project at a later date, the provision of back series starting from the beginning period for the PSIFIs data would be beneficial to enable cross-country comparability and for completeness of time-series data for the purposes of analysis.

CHAPTER 11: MANAGERIAL ISSUES

11.1 Legal Aspects of the Compilation Process

553. Adequate legal backing is needed to provide national compilers with the necessary support to encourage private-sector data suppliers to report the required data for the calculation of PSIFIs. Terms and conditions of legal support for statistical compilation may vary across countries, depending on the institutional arrangements and the historical development of national supervisory and statistical programs and based on legislation, issuance of decrees, or other legal Acts.

554. Some legal aspects, important in backing up the compilation process, include: (a) the scope, which specifies types of reporting entities and the rationale for targeting these entities; (b) flexibility, which allows national compilers to adapt to new developments; (c) compliance, which provides national compilers with the power to impose penalties on entities upon failure to report; (d) confidentiality, which prohibits individual entities from using the information other than for statistical compilation purposes, which establishes independence of the statistical compilation function from other government activities – in particular, taxation-related activities; (e) integrity, which prohibits other government agencies or political offices from unduly influencing the content of statistical releases; (f) confidence, which assures private-sector data suppliers that national compilers – in particular, individual employees – will be penalised for not observing data confidentiality; and (g) aggregation, which ensures the release of information sourced from individual entities only in aggregated form – that is, strictly no dissemination of individual entity data to uphold confidentiality unless such information is not otherwise considered confidential under supervisory or accounting standards. The issue of confidentiality usually arises if there are fewer than three entities dominating the sector in a country.[46]

555. The Guide encourages countries to transmit data for the PSIFIs, the DFS, and their underlying data to the IFSB to facilitate cross-country sharing of experiences and development trends. The DFS income statement and balance sheet information provide greater information on the PSIFIs themselves. However, the Guide acknowledges that the level of preparedness and willingness to publicly disclose core PSIFIs may vary among participating central banks/monetary authorities.

11.2 Data Ownership

556. The ownership of and accountability for the respective national data rest with the national authority or RSA responsible for compiling and transmitting the data to the IFSB, for ensuring data quality, improving methods of compiling data, and interpreting data for users.

557. While the IFSB Secretariat undertakes the review of data submitted by participating countries to ensure consistency and comparability of PSIFIs over different periods and across different jurisdictions, any revisions required as a result of the review are to be undertaken by the compiler.

558. As such, the national authority or RSA is responsible for providing formal approval to the IFSB to disseminate the reviewed and revised data to the public. The IFSB Secretariat mainly plays

[46] The national confidentiality standard might restrict access of the lead agency to the individual entity data, leaving it to rely on aggregate data when calculating the PSIFIs. This Guide encourages countries to review whether such restrictions might be eased given the recent widespread adoption of disclosure and financial accounting standards that require publication of detailed financial accounts information for individual banks.

the role of facilitating the collection and dissemination of the data and is not involved in the audit or approval processes of the data sets.

11.3 Compiling Units

559. The approach that has been taken in the collection of PSIFIs data is to collect the data from central banks, monetary authorities or other relevant RSAs at the national level. This approach has been taken to ensure the reliability and authenticity of data, as the data are verified and transmitted by the national RSA. IIFS (individual data suppliers) submit the consolidated underlying data series to central bankers/monetary authorities or other relevant supervisory authorities (national data compilers) who aggregate and consolidate these data at the national level, then calculate the PSIFIs (Chapter 6) and DFS (Chapter 5) for submission to the IFSB. The IFSB then undertakes a data review process together with the national compilers before dissemination to the public.

560. Central banks/monetary authorities/RSAs have in principle legal powers to make it mandatory for the IIFS under their supervision to furnish the relevant data for compilation of PSIFIs. Proper coordination across compiling units is needed to ensure that the data compilation process is efficient and timely and maintains its data integrity and statistical comparability.

561. The Compilation Guide recommends national compilation by national RSAs to compile the relevant statistics from both full-fledged Islamic banks (stand-alone Islamic banks and Islamic banking subsidiaries of conventional banks) and Islamic windows of conventional banks, which are to be reported separately on separate data forms.

11.4 Outreach to Data Providers and Users

562. Compilers of the PSIFIs and DFS will become proficient in understanding key features of Islamic banking and finance, the PSIFI and DFS methodologies and compilation methods, the source data and its standards and methodology, the parallel standards for conventional FSIs, the supervisory and legal surroundings of the data, trends observed in the data, and potential applications of the indicators.

563. In other words, compilers both acquire a range of specialised information about the compilation of PSIFIs and expertise regarding the system that allow them to inform users about the indicators and enhance the quality of analysis of the indicators. On both sides – receipt of data and its dissemination – compilers will acquire expertise regarding PSIFIs and can play important roles in publicising PSIFIs and promoting their effective use.

564. An important aspect of data collection is for compilers to create a “culture of reporting” in which they actively reach out to data providers through actions such as meeting with them and addressing their concerns, developing reporting systems that mesh with existing procedures, conducting formal training and providing information through regular visits and phone and internet interactions with reporters, and actively promoting PSIFIs with the public and for official purposes so that data reporters become aware of the importance of providing data and thus actively strive to provide accurate and timely information.

565. Compilers should also interact closely with national accounting and supervisory authorities, with government agencies that use the data for analysis and to support policy actions, and with the legislature that provides the authority and resources to collect the data and compile statistical indicators. The goal is to build a statistical infrastructure to facilitate the collection of timely and accurate information in accordance with best international standards and this Guide. This might include actions such as advocating for changes in national accounting and supervisory standards, initiating legislative actions to support data collection, and seeking funding and staffing to support the data compilation.

566. National compilers should also interact with international standards setters and policy authorities to make them aware of the roles of Islamic finance in their economies and how to best integrate the features of Islamic finance into the development of standards and best practices.

567. Building a culture of reporting and effective statistical infrastructure is not easy or quick to achieve. A sustained multi-year effort with committed staffing and monetary resources might be involved.

568. Compilers should also use their expertise to advise both internal and external users of the data – often parties that have limited or no prior knowledge of Islamic financial institutions and their importance. Internal users include the supervisors for Islamic and conventional financial institutions, central bank and government analysts, and policy officials. Compilers also can highlight and support the use of PSIFIs in financial soundness reviews that are being prepared in an increasing number of countries. External users include the broad general public and media, for whom the compilers will have a lead role in explaining the key features of Islamic finance, what are the indicators and how they are compiled, and help explain major trends shown in the data, Compilers can also contribute to periodic official reviews by the IMF or regional authorities (Article IV consultations, Financial Soundness Analysis Project reviews [FSAPs], Data Dissemination Standards[47] [SDDS, GDDS], Reports on Observance of Standards and Codes [ROSCs], etc.), in which compilers should first make sure that reviewers receive the PSIFIs and DFS as they begin their reviews, and then help build their understanding of the indicators.

[47] SDDS-type reviews in countries with mixed conventional/Islamic financial systems might be developed to help ensure that data for both the conventional and Islamic subsectors are conveyed in reliable and non-distortionary ways.

PART V: ANALYSIS OF PSIFI DATA

CHAPTER 12: MACROPRUDENTIAL ANALYSIS AND THE PSIFIs

12.1 Macroprudential Analysis and Soundness Indicators

569. There has been steadily increasing recognition that financial market factors affect the performance and soundness of individual banks, the financial system and entire economies. During the past three decades, global recessions, numerous national crises, and especially the Global Financial Crisis that started in 2008, created deep and destructive problems within the banking and financial systems. "Macroprudential analysis" arose as a new set of tools to predict financial sector stresses and crises, to prevent crises or ameliorate their effects, and to develop appropriate policy responses and evaluate their effectiveness. Work began on developing accurate and internationally comparable indicators of the soundness and risks of financial systems, which resulted in the development of FSIs and PSIFIs.

570. Actions that are appropriate and rational at the micro level for individual banks can create macroprudential risks for the financial system that require different types of analysis, policy and supervisory response. Examples include: increased provisioning during downturns by individual banks, leading to a market-wide slowdown in financing; cuts in liquidity by individual banks, leading to broad liquidity freezes; overextension of credit during expansions, leading to economy-wide overbuilding and subsequent collapse, etc. These conditions can create vulnerabilities that can turn into crises in the face of outside macroeconomic or policy shocks.

571. When work on FSIs began in the late 1990s, major gaps existed regarding information related to financial stability and risk. No consensus existed regarding models for analysing and dealing with risk and crisis situations. A two-pronged approach was adopted in which the IMF Statistics Department investigated compilation of aggregate indicators of risk and soundness (Financial Soundness Indicators, which led to later work by the IFSB on PSIFIs); while other arms of the IMF, the BIS, the World Bank, ECB, and others undertook analytical and policy work.

572. The statistical work on FSIs steadily expanded and, especially after the start of the GFC in 2008, became a core central bank function. Initiatives included the IMF's *Financial Soundness Indicators Compilation Guide* and oversight of national financial conditions, including the joint IMF/World Bank Financial Sector Assessment Program, IMF Article IV surveillance of major countries, and the IMF's review of countries' adherence to international standards and codes. The analytical work undertook many empirical examinations of the risks and triggers of crises, including work on early warning systems (EWS) and crisis resolution policy.

573. These investigations revealed that bolstering financial soundness is a complex process involving the strength of individual banks, macroprudential and economic factors, strong financial infrastructure, effective supervision, effective macroeconomic policy, the legal framework, and robust crisis resolution tools.

574. The IMF's *Financial Soundness Indicators Compilation Guide* presents a multistage model process of use of FSIs for macroprudential analysis. The model also applies in countries where Islamic banks dominate the national banking system or in mixed conventional/Islamic systems.

575. The model has four stages:

i. The first stage assesses the risk of shocks in the financial system. It reviews current market and macroeconomic conditions, along with information on stresses and potential shocks affecting prices, interest rates, exchange rates, market liquidity or assets prices. Information might often be taken from current financial market conditions, models of risk, or analysis of international financial conditions. Key information is whether banks and financial sector infrastructure/regulations are sound and effectively transmit monetary policy impulses through

the economy, or are impaired in some way and thus make monetary policy actions less effective.

ii. The second stage is to apply a macroprudential surveillance framework, with an emphasis on whether banking sector capital is adequate to handle shocks and earnings are sufficient to sustain capital levels and growth. This framework could be relatively simple, covering regular financial accounts and key soundness indicators (capital, earnings, non-performing financing, liquidity, and market exposures, including real estate); or the framework could use detailed quantitative models. A goal of these models will be to review how accounting and credit linkages between other sectors and banks affect bank capital and earnings, or other soundness indicators. The output of these frameworks can often be FSIs or PSIFIs, which allows the model results to be compared against soundness indicators in other countries.

iii. The third stage reviews the channels through which the condition of the banking sector affects other sectors. This includes access of sectors to financing, monetary policy transmission, wealth effects, access to financing, changes in asset holdings, including banks' absorption of government bonds, etc. In the wake of the GFC, these effects led to the development of hybrid macroprudential/monetary policy models that look at the close two-way interactions between financial soundness and monetary policy.

iv. The fourth stage reviews banking sector feedback (good or bad) to other sectors and impacts on macroeconomic variables such as interest rates, exchange rates, monetary growth, market volatility, debt sustainability, employment and productivity, or wealth effects due to market price changes, shifts in corporate and household balance sheets, and much more. These effects are important in themselves as intermediate policy targets, but also because they feedback as inputs into the macroprudential surveillance framework.

576. Quantitatively, versions of such models can track multiple influences across the stages within the financial system and with non-financial sectors. Stress testing by introducing large but plausible variations into the system – for example, tracking the influence of a large policy rate hike on bank earnings and capital, which have feedback effects on borrowing and slowing economic activity, which in turn can affect banking servicing received by households.

577. The new macroprudential orientation helped foster, and moved in parallel with, major advances in underlying standards for accounting, supervision, statistics, information disclosure, etc., which in turn influenced work on FSI and PSIFIs. Macrosoundness indicators contribute to understanding of the full picture, provide some key warning signals of risk, and contribute to international comparison of trends; however, as shown by the multistage models described above, they are only part of the picture and must be supplemented with information on individual banks, institutional setting, and qualitative information on national standards and policies.

578. One goal of the macroprudential research is to look for "red flags" in the data that indicate increased risk of crisis, or to devise early warning systems. Some important results of this work were to demonstrate the roles of the real estate price cycle, rapid credit expansion, and systemically important banks (SIBs) as sources of risk, all of which are reflected in the PSIFIs. Simple red flags exist (poor earnings, illiquid assets, etc.), but borderline indicators can also give false signals and it is informative to compare soundness indicators against those in other countries for guidance on the riskiness of various situations. Often, extreme values of indicators can be considered as signals to investigate further, rather than as definitive risk measures. Moreover, work on EWS revealed that evaluation of soundness is complex, requiring interactions between soundness indicators and other factors to be considered. As investigations of soundness became more regular – at the national level and by international bodies – compilation and review of soundness indicators and many other factors that have been linked to soundness have become priorities. This type of macroprudential research is incorporated in the IFSB's annual *Islamic Financial Services Industry Financial Stability Report*, which makes use of PSIFIs in its analysis.

579. This work has also revealed that the structure and concentration of banking markets affect their soundness. A banking system dominated by a few large banks or in which key functions are closely controlled has over-concentrated risk and is vulnerable to weaknesses in those specific banks. The interconnections between such banks can transmit stresses within the core of the banking system, as was shown in the GFC by rapid freezes of interbank liquidity between the major banks. This contributed to the concept of "systemically important banks", which should have enhanced capital and supervisory oversight. An annual survey using a common international template now collects information on SIBs covering their size (on- and off-balance sheet), "interconnectedness", importance in niche markets, custody assets, short-term liabilities, the complexity of their operations, and more. In mixed conventional/Islamic banking systems, issues of market structure are particularly important because of bifurcation of the market between conventional and Islamic banks (different capital and liquidity profiles, different customers, different exposures, different financial instruments, restrictions on their interactions, and potential different responses to monetary policy stances). This situation calls for the collection of information provided by PSIFIs on the Islamic banking component of national banking systems in order to understand its condition and its interactions with the conventional banks. And within relatively closed Islamic banking systems, some banks *de facto* can be *systemically important on an intrasectoral* level for the operation of the entire Islamic banking sector.

PSIFIs in analytical work

580. PSIFIs can be used to examine the soundness and behaviour of Islamic banks themselves, and also how they relate to the national economy as a whole. This examination can be not only of a bank's position at a single moment in a time, but also of its development over time. Indeed, the way in which vulnerabilities can build up over time can be seen in PSIFIs time-series data. On the other hand, PSIFIs include sectoral distribution of financing and non-performing financing data. These values show whether or not sectors are highly concentrated in financing or have high non-performing financing. These are key factors affecting the national economy.

581. For the analysis of the stability of Islamic banks as a group, two approaches can be undertaken. **The first approach** is to collect financial accounts information and PSIFIs and empirical review of the behaviour of the PSIFIs as they interact with the economic and financial conditions within each country, and to conduct cross-country comparisons of PSIFIs against a range of conditions in different countries.

582. This type of analysis, of which the IFSB's annual *IFSI Stability Report* as an important example, is just beginning. PSIFIs have been integrated into the analysis in the Stability Report; and as the country coverage of the PSIFI program has expanded, a much fuller picture of the structure and stability condition of the Islamic banking industry has emerged. With an expectation that universal or near-universal participation in the PSIFI program will be achieved, and with the availability of the DFS information, a solid basis for analysis of the sector will be available.

583. In countries with comparatively high capital adequacy PSIFIs and limited non-performing financing, Islamic banks appear to contribute to overall soundness and resilience against shocks; conversely, high exposures of Islamic banking to real estate and extractive industries in some countries is a source of risk. A second tentative conclusion from PSIFIs is that some countries that have recently established Islamic banking are experiencing very rapid growth, indicating strong pent-up demand. Conversely, in some countries with economic or political problems, growth of Islamic banking has been stunted. At this early stage, caution should be exercised in drawing more-universal conclusions from PSIFIs, but it is important to begin systematically to include analysis of Islamic finance and PSIFIs in national surveillance (such as in the IMF's Article IV consultations or central bank Financial Stability Reports) wherever relevant.

584. **The second approach** is that the analysis of Islamic banking can grow organically from supervision of individual Islamic banks, where the accounts of each bank and prudential ratios

are examined, and stress tests are conducted to see how banks respond to plausible shocks. Stress tests often test individual bank responses to a common set of shocks to the system, then measure the results of tests on critical bank ratios such as capital adequacy, profitability, liquidity, default experience and market price volatility. Many of these test targets are PSIFI ratios or are correlated with them. The results of tests on individual banks can be summed to obtain a first view of the impacts of financial stresses on the Islamic banking subsector, and comparison made between the PSIFIs.

585. The two types of analysis above can be extended to examine intra-Islamic banking system effects from interactions between the Islamic banks themselves, or from secondary economic impacts (such as the impact of increased defaults and reduced Islamic financing on asset price declines). The types and strengths of these interactive or secondary market effects depend on the size, structure and funding/financing patterns of Islamic banking in each country.

586. Several factors can affect these analyses.

v. Islamic banks act within a restricted pool of Sharī'ah-compliant financial instruments and institutions. A shock affecting Sharī'ah-compliant instruments of one bank can create stresses for other Islamic banks or their customers. This internalisation of stresses within the Islamic banking community and its customers focuses the analysis on the prudential ratios of Islamic banks or on identifiable groups of customers, on either the funding or financial sides, and on channels of interaction between the Islamic banks.

vi. In mixed conventional/Islamic economies, the size of the Islamic sector affects the extent of economy-wide impacts. This is an empirical issue dependent on the relative size of the Islamic and conventional sectors, or the specific niches they affect.

vii. Islamic banks often have limited or no access to conventional types of liquidity support, which forces them to maintain high levels of capital and liquidity; thus, they can respond robustly to stresses. This difference also bifurcates markets, so that policy and market impulses might not transmit smoothly through the entire national market.

12.2 Peer Group Analysis

Comparison of Islamic and conventional banks; peer groups

587. In dual conventional/Islamic banking systems, comparisons can be made between PSIFIs and FSIs. A direct comparison of the indicators can be misleading because the FSIs cover both conventional and Islamic banks and apply IFRS-based accounting rules that might distort the Islamic banking activity.

588. One option is to compare PSIFIs against implicit proxy FSI-type indicators for the conventional banks. For example, in some economies, the PSIFI capital adequacy ratios are higher than in the full-sector FSIs, which implies that the conventional banks as a separate group on average have lower capital ratios than the Islamic banks and that the Islamic banks are contributing to overall financial soundness because of their relatively deeper capital cushion. This type of rough comparison can be made using the existing PSIFIs and FSIs, supplemented with information about the relative sizes of the two banking subsectors.

589. A second option is to construct peer groups to make direct comparisons between Islamic and conventional banks, which can also reveal information on interactions between the Islamic and conventional banks. This method compiles separate peer groups by summing data for all Islamic banks into one group and all conventional banks into a second group. The indicators and financial accounts for the two groups can then be directly compared, and imbalances in interbank positions within each peer group might provide information on transactions and positions between the two groups. This allows a clear picture of activity and soundness

conditions in both sectors and permits valid comparisons. For example, a direct comparison of Islamic and conventional banks would generate separate earnings ratios, which could provide indications of their relative abilities to withstand macroeconomic shocks, build capital or support economic expansion. Or direct comparisons could be made to the responsiveness of each sector to monetary policy initiatives.

590. Construction of such peer groups is now possible using the new Annex 7.1 "Islamic Deposit Takers and Financial Soundness Indicators" in the *FSI Compilation Guide.*[48] Annex 7.1 describes how to construct FSIs for Islamic banks, which are termed "Islamic deposit takers". The Annex provides an intermediate bridge between the IMF's FSI framework and the DFS, adjusted to highlight aspects of Islamic banking. Specifically, the Annex covers only Islamic banking institutions, and its terminology is closely linked to DFS terms in order to facilitate understanding of how DFS items fit into the FSI framework and to guide FSI compilers in classification of Islamic financial instruments. The Annex includes the income statement and balance sheet for the Islamic banking sector, but *does so using the structure used for the FSI project's income statement and balance sheet*.

591. The PSIFIs, Annex 7.1 and the FSI framework all use aggregated (rather than consolidated) data, so full transactions and positions information is preserved and the underlying data can be added or subtracted as desired.

592. The compilation of peer groups is done in several steps;

a) Islamic bank information is currently used to compile the FSIs, but the Islamic component is not separately identified.
b) Data for Islamic banks should be separately collected and slotted into framework of income statement and balance sheet in the Tables 5.1 and 5.2.
c) Because the IMF's Table Annex 6.2 (sectoral financial statement: deposit takers – income and expense statement) and Table Annex 6.3 (sectoral financial statement: deposit takers – balance sheet)[49] are both are additive in nature, covering both Islamic and conventional. Therefore, the Islamic banking data in Tables 5.1 and 5.2 can be subtracted from Table Annex 6.2 and Table Annex 6.3 data, respectively, to give data covering only conventional banks.

12.3 Stability of the Entire Banking System

593. A third level of analysis looks at the role of Islamic banking within the full banking system. Islamic banks coexist with conventional banks in many countries. Analysis can look at the relative performance of Islamic versus conventional banks and the contribution of Islamic banks to the stability of the entire banking sector.

594. Comprehensive analysis of entire banking systems is undertaken by the Joint IMF/World Bank Financial Sector Assessment Program. For some globally financially significant countries, FSAPs are mandatory and are incorporated into IMF Article IV reviews. Reviews are voluntary in other countries, but participation is high. Under the FSAP, teams of specialists visit countries to analyse the stability conditions of banks and non-bank financial institutions, including linkages

[48] Annex 7.1 was added to the FSI Guide in response to heightened awareness in the IMF of the need to better understand Islamic finance and how it can affect policy. "For analytical purposes, it is recommended that countries with dual banking systems compile separate aggregate data for Islamic banks, in addition to standard monetary statistics, to allow monitoring of specific indicators for the Islamic banking system such as growth in financing and sources of funding. Furthermore, guidance is also being developed for compilers of FSIs in countries with Islamic financial institutions in the context of updating the IMF's *FSI Compilation Guide."* IMF, "*Ensuring Financial Stability in Countries with Islamic Banking",* January 2017.

[49] http://data.imf.org

between financial subsectors and spill-over effects on or from other sectors. Stress tests are conducted. The quality of financial supervision and financial infrastructure is examined, and crisis response programs are reviewed. The team prepares a detailed report with recommendations to bolster stability and promote the development of the sector. Summary reports are often published, but much detailed data and analysis can be held confidential. FSAPs will cover Islamic banking sectors where the sector is judged to be systemically significant (as defined by the IFSB rule of comprising 15% or more of total banking assets).

595. The analysis in the FSAP is comprehensive and would address any significant prudential and economic issues raised by Islamic banking, and recommend legal or institutional changes to enhance the soundness of Islamic banks and promote their development. The PSIFI program will contribute to future FSAPs by providing them with both macroprudential and structural information, thus ensuring more in-depth coverage of Islamic banks. It is customary for an FSAP advance team to visit target countries to collect data and institutional information. An effort to compile a broad set of PSIFIs prior to such visits would promote a thorough review of the financial soundness and development prospects of Islamic banks.

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CHAPTER 13: CONCENTRATION MEASURES AND SURVEILLANCE OF THE INDUSTRY

596. The GFC demonstrated that detailed information on individual banks and their distribution is needed to understand the behaviour of the sector. Matters such as competition in providing financing, product innovation, market power and financial soundness can all be affected by the structure of the sector: Is the sector effectively controlled by one or two large banks with little effective competition? Are critical financial functions concentrated in a few banks? Do numerous banks exist that actively compete for business? Is the sector influenced by perspectives of windows' parent banks?

597. Much of this information stems from the need to understand granular and microdata on individual banks, which is increasingly available. Moreover, much of the current research on financial soundness has focused on integrating the aggregate behaviour of the banking sector with data on individual banks and information on sector structure. However, such information has suffered from problems of unwieldiness of handling large data sets, concerns over the confidentiality of information on individual banks,[50] and lack of methods to summarise data on the banks and make international comparisons.

598. Such factors are to some extent formalised in the methodology for identifying systemically important banks, but the method is complex and places high demands for detailed internal data of banks. Much of the information can be captured in several more simple statistical tests called "Concentration and Distribution Measures" (CDMs) that can provide standardised summary measures of concentration and distribution.

13.1 Concentration and Distribution Measures[51]

599. As a complement to the overall assessment of the financial sector risks through aggregate measures, CDMs can enhance the monitoring and detection of weaknesses at the individual institution level and lend themselves to a number of analytical applications. CDMs are standard measures that can provide information on tail risks, concentrations, variations in distributions, and the volatility of FSIs over time. The financial crisis highlighted the importance of taking tail risks into consideration given that institutions that are at the tail of the distribution can cause system-wide disturbances. (In contrast, aggregate and average data focus on the total picture or the centre of the data, rather than on the total distribution including tails.)

600. CDMs, in combination with the PSIFIs, can provide a more in-depth perspective of emerging vulnerabilities of the Islamic financial sector and enhance macroprudential analysis at the country, regional or global level, as well as enabling comparisons with similar data collected from FSI reporting countries.

601. CDMs provide important information that is not revealed by averages and can be used as a starting point in financial stability and performance assessments, being a useful tool for monitoring financial sector vulnerabilities. For instance, distributions of CDMs that represent the institutions with the most severe risks for any variable can show substantial variation across countries and over time within countries.

602. The IMF has included information on common statistical tests for CDMs in Chapter 12 of the *FSI Compilation Guide* and has developed a template for presentation of the CDMs.[52] The elements of the IMF template have PSIFI equivalents; thus, compilers preparing CDMs for the

[50] Constraints due to the confidentiality of individual bank data have eased in recent years because of requirements such as in Basel Pillar III that banks publicly disclose much more information on their activity and condition.

[51] This chapter draws on Chapter 12 (Concentration and Distribution Measures) of the 2019 IMF's FSI compilation Guide. Readers can directly go to Chapter 12 of 2019 FSI Compilation Guides for details.

[52] The FSI Guide still calls for "stricter reporting thresholds for CDMs" to prevent disclosures of individual bank information, but (national legal standards permitting) with less restrictiveness regarding confidentiality the focus instead can shift to the number of reporters needed to produce valid statistical results.

IMF template can compile parallel measures for the PSIFIs. However, an important structural break affecting PSIFIs is the split between stand-alone Islamic banks and Islamic windows of conventional banks. Depending on their purpose, the CDMs could be compiled for the entire Islamic banking sector or separately for banks and for windows.

603. The template lists the following statistical tests:

- Herfindahl index, based on total assets
- Mean
- Median
- Quartiles
- Standard deviation
- Skewness
- Kurtosis

604. The tests can be carried out for each of seven FSIs and the equivalent PSIFIs below, weighted by asset values. CDMs can also be run for other PSIFIs, as needed.

- Tier 1 capital to total assets
- CET1 capital to RWA
- NPLs to gross loans
- NPLs net of provisions to capital
- Provisions for NPLs
- Return on assets
- Return on equity

13.1.1 Concentration Measures

*13.1.1.1 **Herfindahl index***

605. The Herfindahl index is a measure of concentration, calculated as the sum of the squares of the asset shares (measured in per cent) of all Islamic banks/Islamic banking windows in the sector. Higher values indicate greater concentration.

$$H = \sum_{i=1}^{N} (a_i)^2$$

Where:

$$a_i = \frac{\text{(Total assets of institution i)}}{\text{(Total assets of entire Islamic banking sector)}}$$

606. The Herfindahl index provides valid measures of concentration regardless of the number of banks reporting, but is usually calculated only if a country has at least five Islamic banks/windows, and is only reported annually. As a rule of thumb, an index value below 0.10 indicates limited concentration, a value above 0.18 indicates significant concentration, and values above 0.25 indicate very high concentration ratio. A value of 1.00 indicates a perfect monopoly, with only one bank in the sector. Mathematically, if there are four or fewer banks in the sector the calculated value is always greater than 0.25, indicating a high degree of

concentration; six or more banks must be in the sector for the Herfindahl index to show any possibility of a non-consolidated sector.

607. The Islamic banking sector is often small in many countries and, as indicated by the Herfindahl index, it is possible that in many countries the subsector will be deemed to be concentrated or highly concentrated. Also, the Herfindahl index might be a useful tool to help identify banks that are systemically significant within the Islamic banking sector.

13.1.1.2 ***Measures of distribution (or dispersion)***

608. Distribution measures include measures of dispersion, which consist of four main categories – namely, (i) central tendency (mean and median); (ii) range (minimum, maximum, difference from highest to lowest observations, and quartiles); (iii) variance and standard deviation;,and (iv) skewness and kurtosis.

609. The CDM distribution measures are calculated for seven FSI/PSIFI series, weighted by asset size. For example, the CAR of each bank is weighted by the size of assets of each bank relative to the sector total. The calculated CAR for the sector thus reflects the contributions of the biggest banks in the sector. This weighting process is repeated for each of the seven FSI/PSIFI series.

13.1.1.3 ***Central tendency***

610. Measures of central tendency include the mean (the first moment of the distribution), which is the arithmetic average of the PSIFIs values.

611. The most commonly used mean is unweighted, meaning that each observation is given equal weight. All observations are summed, then the total is divided by the number of observations to obtain the mean. The unweighted mean for a series, X, is:

$$\overline{X} = 1/N \sum_{i=1}^{N} X_i$$

X_i = the value of each observation (such as CAR for each IIFS)

N = the number of institutions in the Islamic banking sector

612. In contrast, a weighted mean gives greater weight for observations with greater importance. For example, a weighted average CAR can be calculated by multiplying the CAR for each IIFS by the size of each IIFS – by size of assets or other relevant measure. In this case, the asset-weighted CAR is calculated as follows:

$$\overline{CAR} = 1/A \sum_{i=1}^{N} (CAR_i \times a_i)$$

CAR_i = Value of the CAR (or other PSIFI) for the institution

N = Number of institutions in the Islamic banking sector

$$a_i = \frac{\text{(Total assets of institution i)}}{\text{(Total assets of entire Islamic banking sector)}}$$

A = Total assets of entire Islamic banking sector

613. Since the mean can be affected by extreme observations, other measures of central tendency might also be calculated.

614. The median is the middle value of a PSIFI. It is calculated by ranking institutions for each PSIFI from lowest to highest, and then choosing the value for the institution at the middle of the distribution (if there is an odd number of institutions) or just above the middle (if there is an even number of institutions).

13.1.1.4 ***Range***

615. For the range variables, observations are sorted from lowest to highest for each of the seven PSIFIs.

616. Maximum is the observation with the highest value for each PSIFI.

617. Minimum is the observation with the lowest value for each PSIFI.

618. Range is equal to the value of the maximum minus the minimum for each PSIFI.

619. Quartiles can be weighted measures of the assets for four consecutive sub-ranges in the distribution. For example, the first quartile for the CAR ratio covers the assets of the quarter of all Islamic banks that have the lowest CAR ratios. Similarly, the fourth quartile covers the assets of the quarter of banks that have the highest CAR ratios. From a soundness perspective, the first-quartile banks likely have the highest risk and the weighting by assets gives a perspective on the size of the risk.

620. Quartile analysis is useful for analysing larger pools of banks (typically, 12 banks or more) because it can cluster banks with similar characteristics; however, few Islamic banking systems are that large. Also, if the method is independently applied for each PSIFI, then a different mix of banks could populate each quartile for different PSIFIs and it is not clear how to deal with such diverse results. A method for dealing with such diversity is to construct standard sets of quartiles based on asset size or other PSIFI such as the CAR. Each of the seven PSIFIs would then be matched to the standard quartile.

621. An alternative for ranking quartiles by this method is to use supervisory CAMELS ratings for each bank. By this measure, the first quartile includes those banks evaluated as the weakest by the CAMELS rating. The average of each of the seven PSIFIs can then be derived for each quartile, indicating the estimated overall strength of each quartile.

13.1.1.5 ***Variability***

622. Measures of variability describe the dispersion or spread of the PSIFIs.

623. Variance (second moment of distribution) measures the dispersion of data around the mean, taking into account all data points. The weighted variance (referenced in formulas by σ^2 – the Greek letter sigma squared) can be calculated as follows:

$$\sigma^2 = \sum_{i=1}^{N} [(PSIFI_i - \overline{PSIFI})^2 \times a_i]$$

Standard deviation (σ) is the positive square root of the weighted variance (σ^2) and is the most common measure of variability. It is often called "sigma". Standard deviation indicates how close observations are to the mean. It is common to refer to individual observations by how far they are in the distribution from the mean – for example, bank A's CAR is "2 sigma" above the mean, which means that it has a value well above the value of the average of the distribution.[53]

13.1.1.6 ***Skewness and kurtosis***

624. Skewness and kurtosis are less commonly used measures that describe the shape of a distribution.

625. Skewness is the third moment of a distribution (μ^3). It indicates the extent to which data are asymmetrically distributed around the mean. Positive skewness indicates a longer right-hand side tail of a distribution, and negative skewness indicates a longer left-hand side tail.

626. Skewness is calculated as follows:

$$(\mu^3) = \sum_{i=1}^{N} \frac{[\,(PSIFI_i - \overline{PSIFI})^3 \times a_i\,]}{\sigma^3}$$

627. Kurtosis is the fourth moment of a distribution (μ^4). It indicates the relative thickness of the tails of a distribution.

628. Kurtosis is calculated as follows:

$$(\mu^4) = \sum_{i=1}^{N} \frac{[\,(PSIFI_i - \overline{PSIFI})^4 \times a_i\,]}{\sigma^4}$$

[53] For the "normal distribution", about 68% of observations fall within 1 σ of the mean; 95% fall within 2 σ of the mean; and 99.7% fall within 3 σ of the mean. In the case of Bank A, being 2 σ above the mean means that its CAR is better than 97% of all the banks in the country (50% of banks fall below the mean + 47.5% of banks are above the mean but not as high as Bank A).

APPENDIX: SECTOR CLASSIFICATION

This appendix covers the statistical classification of institutional units into sectors, and within the financial sector into specific subsectors that engage in different types of financial activity. The first part deals with the broad economic sectors as classified in the System of National Accounts, which is used for classification of information on IIFS customers. The second part covers the financial subsectors in more detail, including discussion of specific types of Islamic financial institutions.

Institutional units are classified into major sectors based on the characteristics of their economic activities. The SNA defines five major mutually exclusive sectors for an economy.

1. Households: This is the first major division of the economy. Households comprise individuals and families that share common accommodations and pool some or all of their income and consume collectively. A household can engage in economic production, such as farming, fishing, small manufacturing, etc. Households earn income by supplying labour, engaging in entrepreneurship, investing, engaging in own-production, etc.

2. Corporations: Corporations (subdivided into financial and non-financial corporations) are entities that engage in economic activities such as producing goods and services for the market and which have an existence independent of the units that own them. Many corporations are formally organised or legally registered, but they can also be unorganised entities that engage in production. Corporations can be cross-classified by who controls them – domestic vs. foreign control; government (public sector) vs. private control.

Quasi-corporations are unincorporated entities that function like corporations. One type consists of unincorporated enterprises owned by a domestic unit that has equity control of it, like a corporation. A second type consists of foreign-owned unincorporated enterprises that are deemed resident because they have engaged in production in the economy for more than a one-year period. A quasi-corporation must have a complete set of financial accounts, or it must be feasible to compile such accounts.

Corporations are classified into two main types.

i. *Non-financial corporations:* A non-financial corporation is an entity that produces goods and non-financial services for the market to generate profits for its owners. Non-financial corporations engage in a wide range of non-financial activities, but can have financial activities as secondary activities.

ii. *Financial corporations:* Financial corporations are entities engaged in financial activities and providing financial services for the market. Traditionally, financial activity was defined as engaging in financial intermediation, which involves raising funds on own account, then investing or lending funds in order to earn income. The 2008 SNA, however, expanded the definition of financial activity in three ways: (a) lending of funds on own account (which includes moneylenders in developing economies) is recognised as a financial intermediation service; (b) SPVs can be organised as financial entities that can be classified as financial corporations; and (c) ancillary (captive) financial corporations that provide financial services only to their parent corporation can be treated as financial entities classified based on the type of financial service provided. Islamic banking institutions are part of the financial sector, classified within the SNA subsector “other depository corporations”. The division of financial corporations into nine subsectors is discussed in the next section.

3. Government: Governments are legal entities with executive, legislative and judicial control over a territory. Among the functions of governments are to provide goods and services to the population, to fund itself through taxation or sales of products and services, to redistribute

income, and to engage in non-market production and social functions. Governments can produce goods and services, but if the production is undertaken in a separate unit that has its own financial accounts and it charges a significant price for the goods or services it should be classified in the corporate sector as a government-controlled corporation or quasi-corporation. In statistical reporting, Islamic banks should exercise care that their transactions with government or government enterprises are classified properly, often by use of lists of government agencies and government-controlled entities maintained by national accounts compilers.

4. Non-profit institutions serving households (NPISH): Non-profit institutions (NPIs) are legal or social entities that produce goods or provide social services but do not provide profits to the individuals or institutions that organise them. NPISH are treated as a separate macroeconomic sector that serves only households; NPIs that serve businesses or government are treated as part of those sectors. NPISH can serve many functions, including as religious organisations, charities, and institutions that serve the public (such as schools, clinics, fire brigades, sports facilities, etc.) without cost or with prices low enough to not significantly affect the demand for the services.

5. Rest of the World (ROW): Institutional units that are not domestic are classified as non-residents and part of the Rest of the World. There are many cases affecting PSIFIs and other statistical systems where resident and non-resident transactions and positions differ in treatment; thus, care should be taken to correctly classify the residency of institutional units.

The ROW includes:

- institutional units located outside the country;
- international organisations created by formal agreements located within the country;
- embassies of foreign countries and military facilities agreed by treaty located in the country;
- tourists and other short-term visitors; and
- short-term operations (less than one year) conducted by non-residents.

Numerous borderline cases exist. The IMF's *Balance of Payments Manual*, 6th edition, or balance of payments compilers within the country, should be consulted for more information.

The ROW is not a domestic sector, although it can be convenient to treat it like one in some data presentations. For example, a table on financing provided by Islamic banks to different sectors might list the five domestic sectors and ROW in order to provide a complete picture of total financing.

Financial Subsectors

The financial sector of SNA 2008 has nine subdivisions. SNA 2008 expanded the definition beyond financial intermediation to include financial risk management and liquidity transformation. The expanded scope recognises that various components of the financial sector play different important roles that should be recognised, and that in recent years much financing has increasingly been supplied by non-bank financial institutions.

Financial Corporations Sector

Depository Corporations
- Central bank
- Other depository corporations

Other Financial Corporations
- Money market mutual funds
- Other investment funds
- Other financial intermediaries
- Insurance
- Pension funds
- Captive financial institutions
- Financial auxiliaries

The financial corporations sector has a major subdivision into depository corporations and other financial corporations. Depository corporations are the main monetary institutions in a country, divided into the central bank and other depository corporations (ODCs) comprised of banks and similar institutions. FSIs were developed as indicators of the soundness and risks of the ODC subsector; PSIFIs are similar indicators focusing on Islamic financial institutions within the ODC subsector.

Central Bank

The central bank is the official monetary institution of a country, with functions such as issuing currency, holding international reserves, conducting international financial policy, conducting monetary policy, and regulating the national banking system. In some countries, central banking functions are split between several institutions, but they are treated as a single institutional unit. PSIFIs (and FSIs) do not cover the central bank.

SNA 2008 expanded the definition of the central bank to include supervisory organisations and financial supervisory authorities. Many central banks supervise banks and other financial institutions, but in some countries supervision is handled by separate entities. Prior to SNA 2008, separate supervisors were classified as a "financial auxiliary" outside the central bank subsector because they do not directly engage in financial intermediation. SNA 2008 treats financial supervision as a core central bank function and thus supervisors of conventional banks and Islamic banks will be included in the central bank subsector. Since most financial supervisors do not themselves hold substantial assets, this change will probably have little impact on the data in many countries.

Other Depository Corporations

PSIFIs (and FSIs) focus on the condition of the ODC subsector, which can be treated as equivalent to "Islamic banks and near banks".

ODCs are a core part of a country's monetary and banking system. An ODC is a financial intermediary that has deposit liabilities or close substitutes for deposits that are classified as part of the national definition of broad money. Broad money, as discussed in the IMF's *Monetary and Financial Statistics Manual*, is a measure of cash and liabilities of depository corporations to the domestic public that have high liquidity and capital certainty and are empirically related to general domestic economic activity and prices. The definition of broad money has steadily expanded in recent decades to include cash, current account or transferable deposits, circulating or negotiable instruments used as means of payment, savings deposits that can be readily withdrawn and used for payments, and a wide range of financial instruments that have acquired characteristics of money. Broad money can be in the national currency, or in foreign currency if it is circulated in the economy and is widely held by the public. Institutions issuing electronic instruments that are part of broad money are also classified as ODCs. Broad money usually excludes long-term deposits and investments and accounts with restrictions on their use. It

covers only liabilities to the domestic "money-holding sectors" (households, non-financial corporations, NPISHs, local levels of government, and non-ODC financial institutions; it excludes liabilities to other ODCs, to the central government and to non-residents.

Common types of ODCs include commercial banks, merchant banks, savings banks, savings and loan associations, credit unions, rural and agricultural banks, and microfinance banks. Any other types of financial institutions that issue broad money liabilities are also deemed to be ODCs. Any institutions enumerated above regardless of their name (which might include the name "bank") that do not issue broad money liabilities are not ODCs and are classified in other financial subsectors.

Islamic banks and windows are classified within the ODC subsector (even though they might not accept deposits in the conventional sense), because they are a core part of the monetary banking system of a country, issue current account and safekeeping deposits, have PSIAs available to the public that actively compete with conventional deposits, and carry out basic banking services by acting as intermediaries to accept funds from the public and extend financing. Islamic banks might also be part of the official monetary policy system of a country and participate in interbank markets.

The IMF's FSI program uses ODCs as the reporting sector for FSIs. In parallel, all Islamic banks and windows classified as ODCs under IMF definitions should report data for PSIFIs. Moreover, because PSIFIs are intended to cover all Islamic banking activity, supervisors of Islamic banks should also include all other Islamic banks or windows supervised as Islamic banks regardless of whether they are classified as ODCs or have "broad money liabilities" and should note their inclusion in metadata.

Investment Funds, divided into Money Market Mutual Funds and Other Investment Funds

Many types of investment funds exist: money market mutual funds (MMMFs) are those with liabilities included within the national definition of broad money (e.g. liabilities similar to transferable and sight deposits at banks). All investment funds not classified as MMMFs are classified as "other investment funds". The IFSB has concluded that the best name for an Islamic investment fund is "Islamic collective investment scheme" (ICIS).

An investment fund receives and pools capital from investors who have equity shares in the common pool of assets, manages the funds to generate income (interest, trading profits, capital gains, etc.), is compensated as the manager (through service fees, shares of profits, or other gains), then distributes the income or losses to the investors based on their shares. In many economies, investment funds are an important alternative credit channel to banks, and are often called "shadow banks". Their investment strategies can parallel those of banks; some offer share accounts similar to regular bank deposit accounts, and in some countries they can participate in official payments or deposit insurance facilities. Although investment funds can perform many banking-type functions, they can be more often flexible than banks in their investment strategy and might offer higher returns because they do not have capital and other regulatory restrictions as conventional banks do.

Investment funds are collective arrangements that differ from fiduciary or custodial arrangements (such as restricted PSIAs) in which the manager acts as an agent for an individual investor. Investment funds can be established as separate legal entities or on a contractual basis, but always have a set of accounts separate from entities that manage them. A firm might offer many different investment funds to attract different types of investors, but each fund is treated as a separate institutional unit because it will have different pools of assets, investment strategies, liquidity, fee structures, and methods of distribution to investors.

Investment funds do not have the same financial structure as banks – the funds are owned by the pool of investors and are managed as a pool. Managers of the fund charge fees, which can be fixed or variable. Returns can vary depending on the type of assets held by the fund – interest, dividends, commodity prices, capital gains, exchange rates, etc. – but distributions to investors will often be in the form of dividends. Repayment of capital contributions and earnings is not a capital certain liability, unlike

the deposit and accrued interest liabilities of conventional banks. Because of their different structure and earnings flows, some FSIs and PSIFIs do not apply to investment funds.

The classification of investment funds into MMMFs or "other investment funds" is based on the characteristics of each fund, as discussed below. Data must be collected on each fund in order to allocate them to either the MMMF or "other investment fund" subsectors.

Money Market Mutual Funds

MMMFs are a specific type of investment fund with monetary characteristics that justify its classification as a separate subsector.

A high degree of capital certainty is a key feature of MMMFs that encourages their public acceptance as a safe alternative to bank deposits. In general, capital certainty is based on a fund's strategy of investing in liquid instruments with nearly constant face value, rather than being based on legal obligations to repay amounts provided.

MMMFs are considered monetary institutions because they meet several characteristics:

- They provide fund shares similar to bank deposits that the public can treat as deposit substitutes.
- They offer "capital certainty" – that is, protection of the asset value of the shares.
- They offer interest-like returns similar to deposits.
- Some offer transferable deposits usable for payments to third parties.
- Funds might be available immediately, such as with sight deposits.

Funds without a high degree of capital certainty are not classified as MMMFs. For example, in the Euro area, every investment fund is subjected to statistical tests of its capital certainty. Those funds with 10% or higher equity components are not classified as MMMFs but as other investment funds.

Islamic investment funds can be classified as MMMFs in two cases.

- They provide unremunerated capital certain accounts similar to zero-interest current accounts at conventional banks. Such Islamic MMMFs serve as temporary holding places for funds and are fairly common.
- The fund does not provide capital certain returns, but provides a high degree of capital stability by offering accounts with: (1) indicative returns (returns indicated by Islamic banks as likely but not guaranteed) similar to conventional deposit rates; (2) high liquidity for investors; and, possibly, (3) smoothed distributions to IAH with returns similar to transferable deposits or money market instruments offered by conventional banks.

Other Investment Funds

This subsector includes all investment funds other than MMMFs.

Investment funds could be a common form for Islamic finance with its emphasis on investment in trading, commercial ventures, project development, real estate, etc. Islamic investment funds must follow Sharī'ah investment standards and could invest directly in Sharī'ah-compliant ventures or purchase *sukūk* or other Islamic financial instruments.

RPSIA can be classified as "other investment funds" if they are organised as separate entities and not consolidated into the financial accounts of their managing Islamic bank.[54] If RPSIA are deemed to be an "other investment fund," the measured size of the Islamic finance subsector might record an increase because assets previously treated as off-balance-sheet assets managed by a bank will become on-balance-sheet assets of a formally recognised financial institution.

Hedge Funds

Hedge funds are a special type of non-MMF investment fund limited by regulators to sophisticated investors and usually not subject to strict regulation because of that limitation. They can invest in a wide range of assets, but tend to be speculative, and are often designed to "hedge" volatile price movements. Fund managers often co-invest in the fund, and the fees and distribution of returns can be complex depending on the strategy for each fund. As private investments, hedge funds may have limited or no public or statistical reporting. Sharī'ah-compliant hedge funds should be classified as "other investment funds".

Takāful

This subsector includes corporations, quasi-corporations, and mutual organisations that provide life, accident, health, fire and other *takāful* services. *Takāful* companies take premium payments from policyholders and agree to make benefits payments when an insured event occurs.

Retakāful (reinsurance) companies and exchanges that insure the risks of other *takāful* companies are also included. *Retakāful* companies allow *takāful* companies to transfer a portion of their risk and premiums to other insurers to diversify risk, protect themselves from losses on large claims, and adjust their balance sheets for regulatory purposes. *Retakāful* tends to be concentrated in a relatively small number of international companies, often resulting in cross-border balance of payments transactions between insurers and their reinsurers.

Two main types of *takāful* are recognised: non-life insurance (general *takāful*) and life insurance (family *takāful*). The two types follow different business models.

General *takāful* spreads risk across the pool of policyholders, who make small premium payments to purchase coverage against possible large losses if an insured event occurs. The number of claimants is usually much smaller than the number of policyholders. Medical *takāful* is an exception, because most policyholders receive regular benefits, but a relatively small number will receive very expensive benefits. Non-life insurers' finances are based on annual receipts of premiums that are expected to exceed annual payments for claims. *Retakāful* is treated as a form of non-life *takāful*.

Family *takāful* collects regular premiums in order to build reserves with which to make a future payment of an agreed sum or annuity. Life *takāful* redistributes income of individual policyholders across time periods, with certainty that a benefit claim will occur. There is a strong relationship between premiums, earnings from investment of the premiums, and claims over time, in which the life *takāful* company makes actuarial calculations to set the relationship between premiums, earnings on reserves, and benefits payments.[55]

The SNA 2008 changed this subsector in several ways. Prior to SNA 2008, insurance and pension funds were combined into a single category, but pension funds were reclassified into a separate subsector because the structure of their accounts differs from insurance firms.

[54] RPSIA could be consolidated into their parent bank's accounts if they are controlled by the bank *and* the parent bank benefits from or is at risk from variable income due to its management of the account.

[55] In the SNA Integrated Framework, net premiums and payments of benefits on life *takāful* are a form of saving of households, which is reported in the Financial Account.

A second major change was to include standardised loan guarantees as a form on non-life Insurance. Firms that issue guarantees in large numbers (student loans, credit guarantees, credit card insurance, etc.) can cover an expected number of defaults of an expected size in the portfolio. This change could result in a substantial change in the size of the non-life insurance subsector. This type of insurance might, for example, cover defaults on Islamic *murābahah* instalment financing or Islamic microfinance financing. One-off guarantees in which the default risk and size of risk cannot be estimated accurately continue to be treated as off-balance-sheet contingencies.

Pension Funds

Pension funds provide benefits for retirement or disability. Pensions can be offered by separately organised firms or by employers. This subsector includes only units that are "autonomous" – separate from the unit that creates them. "Non-autonomous" funds are classified as part of the employer who created them.

Social security pension plans are part of government and should not be classified in this sector. However, the boundaries between a social security system and a government-promoted pension scheme (some of which offer Sharī'ah-compliant accounts) can be ambiguous. Compilers should consult the detailed guidance in the SNA and with their country's national accounts compilers regarding classification of social security systems.[56]

The finances of pension funds parallel those of life *takāful* companies, receiving funds to build reserves that earn income with which to make payments for future claims.

SNA 2008 treats pension entitlements as enforceable contracts; therefore, they are assets of households and liabilities of the pension fund or employer offering the pension. An enforceable pension liability exists even if it has not been funded.

Islamic pension funds are classified in this subsector. Currently, there are relatively few Islamic funds, partly because of a limited pool of long-term Sharī'ah-compliant investments, such as in *ṣukūk* or shares of companies engaged fully in Sharī'ah-compliant activities. However, several countries are working to build markets for the types of Sharī'ah-compliant assets that can support the growth of Islamic pension funds.

Captive Financial Institutions and Moneylenders

These are units that provide financial services only to a single financial entity or closely related group of companies. Captives do not have market-based transactions with the unit(s) to which they are captive – either their assets or liabilities are transacted only with their parent and are not transacted in open markets. This is a change in SNA 2008 that expands the definition of the financial sector. Prior to this, financial arms of parent corporations were called ancillary corporations and were consolidated into the parent corporation, including into non-financial corporations. In the new definition, financial arms that operate as separate entities can be classified within the financial sector. This covers cases where the parent sets up the captive in a different economy.

Types of units that could be treated as captives include: trusts, estates, and brass plate companies; holding companies as defined in SNA 2008; SPVs (structured entities) that raise funds in open markets for use by the parent firm; moneylenders; pawn shops; and firms lending funds received from a sponsor, such as a government or non-profit institution. SNA 2008 has new coverage of SPVs, which it says are often considered as financial entities without employees or non-financial assets owned by or affiliated with other units and which are often set up in different countries for tax or legal reasons. SPVs have been used to securitise assets off a bank's books, to shift credit risk by bundling assets with derivatives or guarantees, or to shift *takāful* or *retakāful* obligations. SPVs can be allocated to sectors based on

[56] In recognition of the ambiguity in classification of pension funds/social security and diverse national practices, SNA 2008 encourages countries to prepare a supplemental table covering all forms of pensions, regardless of whether they are public or private.

their principal activity. Sovereign wealth funds funded by governments, central banks or extractive industries to hold and invest financial assets for future beneficiaries that are separate entities can be treated as financial captives.

One type of SPV potentially relevant for PSIFIs securitises banks' holdings of Sharī'ah-compliant financing in which the SPV issues securities that are used to purchase the financings. The removal of the financing from the parent's balance sheet reduces measured growth in CP19 "Growth of financing to the private sector", reduces risk-weighted assets, and distorts monetary statistics data on the volume of loans extended.[57] If there is evidence that SPVs are being used to artificially reduce RWA used in the PSIFI capital adequacy ratios, compilers should consider collecting data on this type of securitisation and adjusting RWA as needed.

Collecting data on SPVs can be difficult because they are often set up as non-corporate trusts that might not have legal reporting requirements and may not be covered by data collection systems. Legislation requiring reporting might be needed. Alternatively, some SPVs might now be required to be consolidated into their parent's financial accounts based on IFRS 10.

Another type of Islamic financial institution that might fall into this classification is the separate financing arm set up in an offshore centre or international finance centre to issue *ṣukūk* in the name of its parent.

Currently, there is little practical experience in compiling data on captive financial institutions. Compilers should monitor the advice available from international authorities or the experiences of other countries for guidance on data collection. It is not yet concluded whether some sovereign wealth funds should be classified as captive financial institutions.

Financial Auxiliaries

Financial auxiliaries are units that are not directly engaged in financial intermediation, but which provide closely related services. Many are financial infrastructure companies, including brokerages, exchanges, clearing houses, brokers, securities depositories, collateral agents, asset management companies resolving financial crisis situations, etc. Non-profit institutions serving the financial sector are included in this classification.

Other Financial Intermediaries (OFIs)

This is a catch-all category of types of financial intermediaries, including Islamic firms, not otherwise enumerated. (Thus, it excludes ODCs, *takāful* firms, pension funds, and financial auxiliaries, which are all specific subcategories.) Many different types exist that provide a diverse range of financial instruments or services, some for specialised niche markets. SNA 2008 narrowed the definition of this subsector by reclassifying some units into the new subsectors for MMMFs, other investment funds, and captive financial intermediaries (including money lenders).

In contrast to ODCs that receive some of their funding from deposits that are part of broad money, OFIs receive funding from securities, equity investments or shares, or funds provided by parent firms.

Common types of OFIs are investment banks, finance companies, financial leasing companies, specialised financial intermediaries such as factors or export finance companies, securities underwriters and dealers, venture capital firms, special purpose vehicles, pawn shops, e-money corporations, and many more. Centralised clearing houses that take intervening positions in over-the-counter derivatives transactions are explicitly defined as financial intermediaries classified as OFIs.

Among OFI categories that could have Islamic firms are finance companies that provide *murābahah* or *bai ajil* instalment sales, and investment banks or leasing companies that might provide longer-term

[57] To deal with this type of asset transfer, the ECB issued a statistical guideline in 2013 requiring collection of data for such SPVs (which it called "financial vehicle corporations" – FVCs), which are used to adjust loan data for the volume of loans securitised into FVCs.

construction, *istisnā*, or *ijārah* financing funded through *ṣukūk* or longer-term deposits. Haj funds that receive long-term deposits in order to finance future trips are OFIs.

Holding companies

SNA 2008 changed the treatment of holding companies to classify them as other financial intermediary companies that only hold financial assets and do not exercise management control over subsidiaries. That is, the assets of units that passively hold ownership shares of a corporate group are treated as financial sector holdings. Prior to that, holding companies were classified according to the main activities of the group they own. This change moves the SNA treatment away from the Basel supervisory consolidation that includes bank holding companies within the consolidation for capital adequacy purposes because the parent holding company bears the entrepreneurial risk for the banking group. For PSIFI purposes, metadata should note if an Islamic bank and its holding company are consolidated into a single supervisory report, because this treatment will differ from the preferred SNA treatment.

Head offices

Head offices can be classified within any of the financial subsectors. In contrast to holding companies, head offices actively manage units under their ownership or control. Thus, head offices produce services that should be recognised in the accounts and allocated according to the principal activities of the group. Per SNA 2008, a head office over a mix of financial corporations should be classified as a financial auxiliary, but this Compilation Guide recommends that, whenever feasible, they should be classified within specific financial subsectors. Because head offices could have substantial financial assets, metadata could note their treatment.

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