Rating of Sukuk

Developing Sukuk Markets

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www.moodys.com/islamicfinance

Agenda

1. **Islamic Banks Overview**
    a. Growth and penetration metrics
    b. Funding and liquidity considerations
    c. Rating considerations

2. **Sukuk Market Overview**

3. **Ratings of Sukuks**
    a. Islamic Investing Principles
    b. Unsecured (asset-based) Sukuk vs Asset-Backed Sukuk
    c. Basel III Compliant Islamic Instruments

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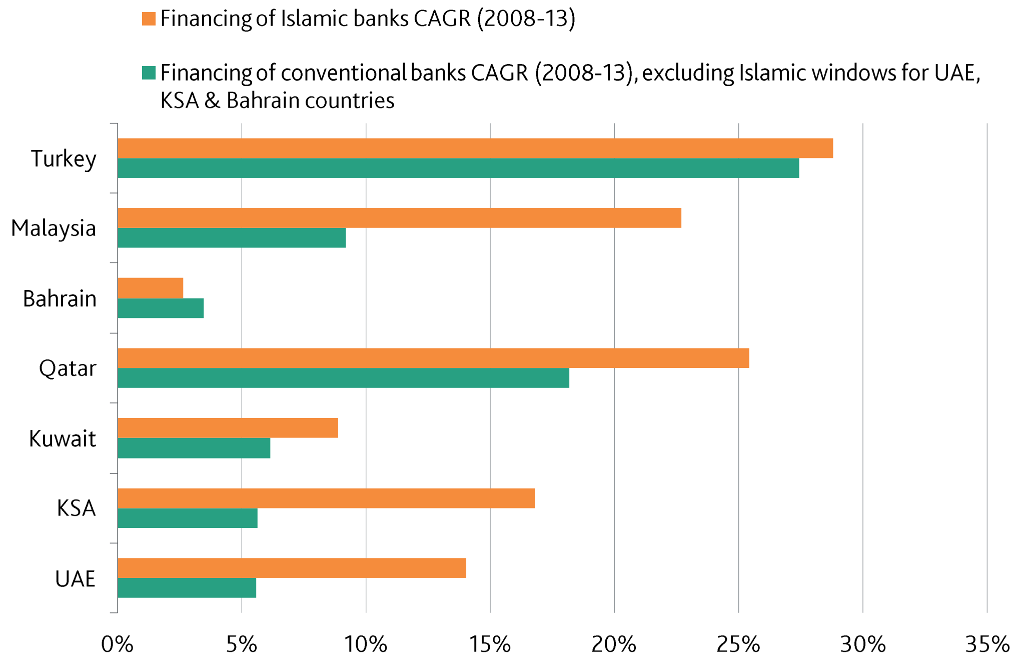
Islamic Banks Overview

Facing liquidity management challenges

Islamic Banks – Growing Fast

Financings continue to outpace conventional bank lending – increasing the importance of the sector



Sources:
Central Banks data for Qatar, Kingdom of Bahrain, Malaysia and Turkey banking systems.
Banks annual reports and Moody's Banking Financial Metrics data for rated banks in United Arab Emirates, Kingdom of Saudi Arabia and Kuwait.
Banks annual reports for non rated banks in United Arab Emirates and Kingdom of Saudi Arabia .
Islamic windows assumptions for United Arab Emirates, Kingdom of Saudi Arabia and Kingdom of Bahrain.
Data as of December 2008 and December 2013 for all banking systems.

18 Islamic Banks*

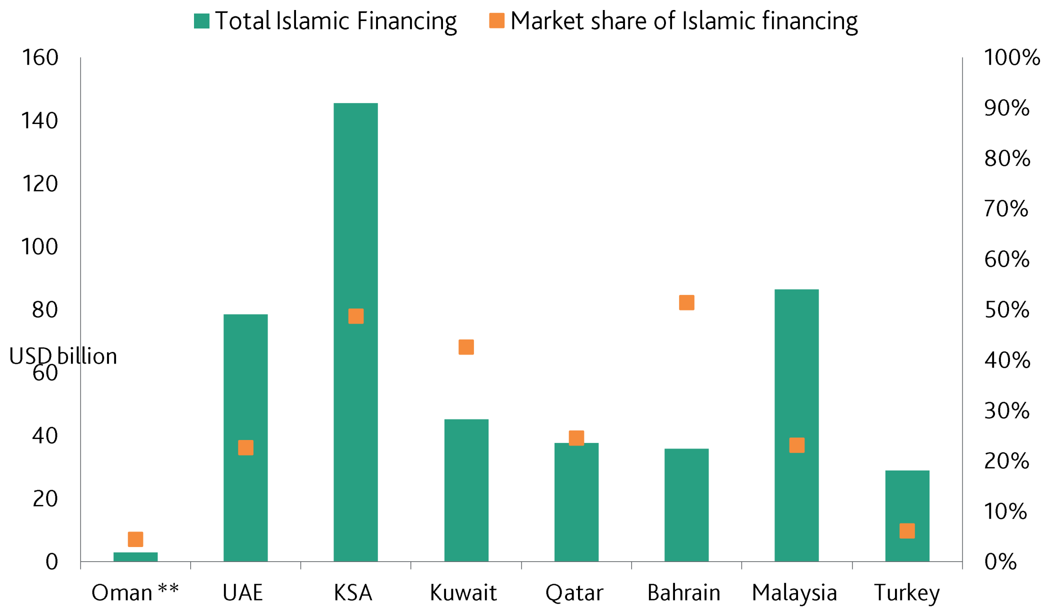
- Abu Dhabi Islamic Bank
- Ahli United Bank K.S.C.
- Al Hilal Bank PJSC
- Al Rajhi Bank
- Asya Katilim Bankasi A.S.
- Bahrain Islamic Bank
- Bank AlBilad
- Bank Al-Jazira
- Barwa Bank
- Boubyan Bank
- CIMB Islamic Bank Berhad
- Dubai Islamic Bank PJSC
- Islamic Development Bank
- Kuwait Finance House
- Masraf Al Rayan
- Qatar International Islamic Bank (Q.S.C.)
- Sharjah Islamic Bank PJSC

* Includes 1 Privately Monitored Rating Islamic bank

Rapid asset growth can lead operational pressures and future asset quality weakness. Solvency concerns will in turn create liquidity pressures if the bank has a high degree of confidence sensitive wholesale funding

Islamic Banks – Increasing Significance

Islamic finance enjoys strong penetration in many countries and still has headroom to grow further



9 Takafuls*

- Al Madina Insurance Company SAOG
- Al Muthanna Takaful Insurance Company K.S.C.
- Damaan Islamic Insurance Company "Beema"
- Gulf Takaful Insurance Company K.S.C.
- Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC)
- National Takaful Insurance Company K.S.C.
- Qatar Islamic Insurance Company (QIIC)
- T'azur Takaful Insurance Company K.S.C.C.

* Includes 1 Privately Monitored Rating Takaful

Sources:
* Total Assets data used for Oman banking system.
Central Bank data for United Arab Emirates, Kingdom of Saudi Arabia, Kuwait, Qatar, Kingdom of Bahrain, Malaysia and Turkey.
Banks annual reports and Moody's Banking Financial Metrics data for rated banks in United Arab Emirates, Kingdom of Saudi Arabia, Kuwait.
Banks annual reports for non rated banks in United Arab Emirates and Kingdom of Saudi Arabia.
Islamic windows assumptions included in Islamic financing for United Arab Emirates, Kingdom of Saudi Arabia and Kingdom of Bahrain.
Oman data from Thomson Reuters study, dated June 2014., Data as of December 2013 for all banking systems except Oman.

Despite being a systemically important part of the local banking system, Islamic money market & capital market instruments - particularly short and long term sukuk - are in short supply

Funding and Liquidity

Maturity transformation and liquidity pressures are inevitable

Islamic Financial Institutions (IFIs) investing in long-term assets and financings are still faced with a problem in that most of their liabilities are very short-term.

Less **confidence-sensitive** term funding is usually only **10-15%** (GCC) of liabilities leaving the banks contractually exposed to interbank and deposit outflows and hence possible funding gaps given the high growth rates observed.

This lack of Shari'ah compliant money and capital market liquidity is a major constraint to the development of a stable, efficient and integrated Islamic financial system.

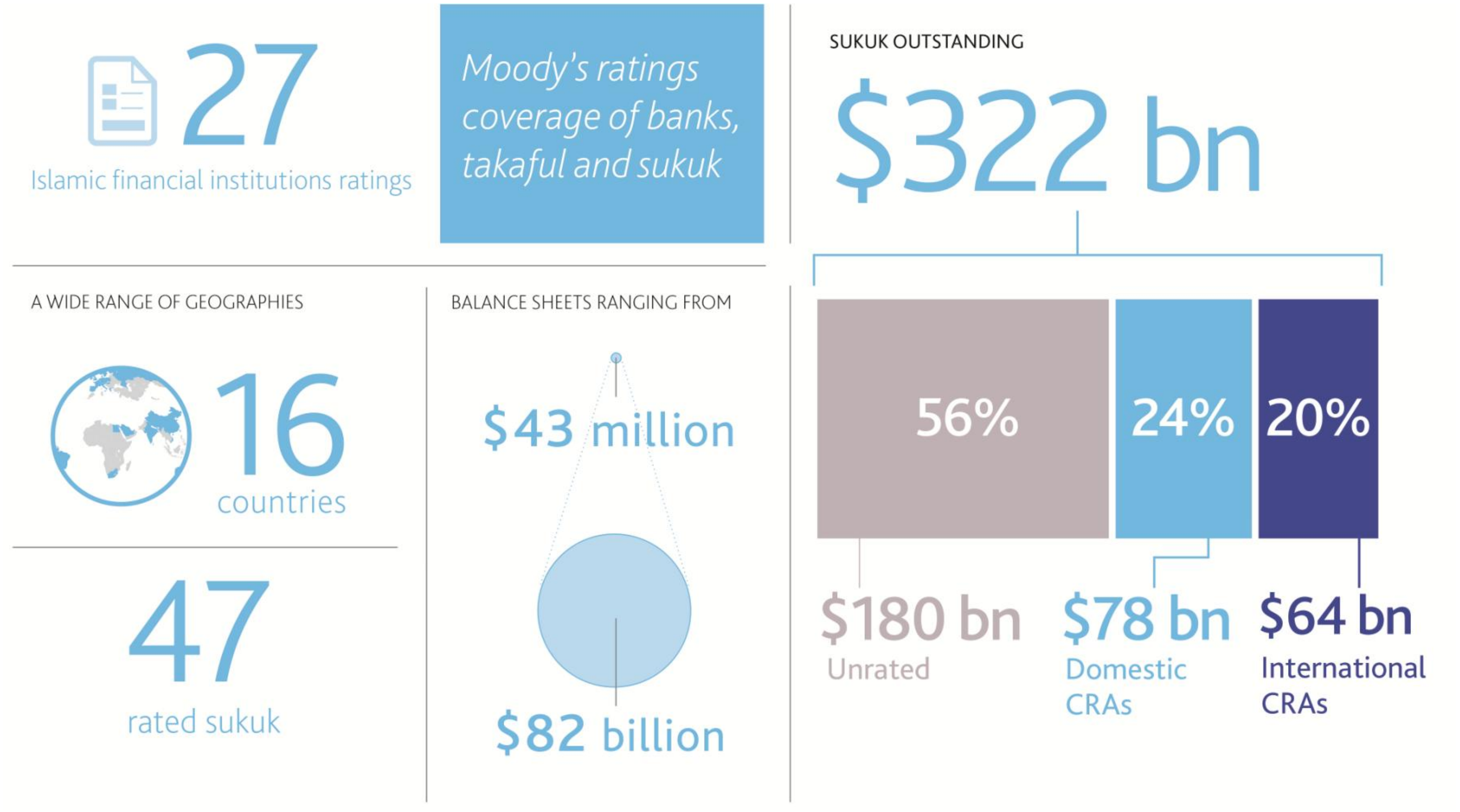
Short-Term (LCRs) and Long-Term (NSFR) compliance is less efficient for IFIs

A lack of high quality liquid assets (HQLA) will pressure compliance with Basel III liquidity and funding ratios. HQ Sukuk (both short term and long term) are key instruments, but lack of supply in both markets is still a significant constraint on the development of Islamic finance globally.

This lack of Shari'ah-compliant HQLA pushes banks to rely primarily on cash and central bank placements as their main liquidity management tools which give very low returns.

Cash, reserves and CDs are very safe – but not efficient, putting the sector at a commercial disadvantage to conventional FIs

Islamic Finance Ratings



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Islamic financial institutions ratings

Moody's ratings coverage of banks, takaful and sukuk

SUKUK OUTSTANDING

$322 bn

A WIDE RANGE OF GEOGRAPHIES

16

countries

47

rated sukuk

BALANCE SHEETS RANGING FROM

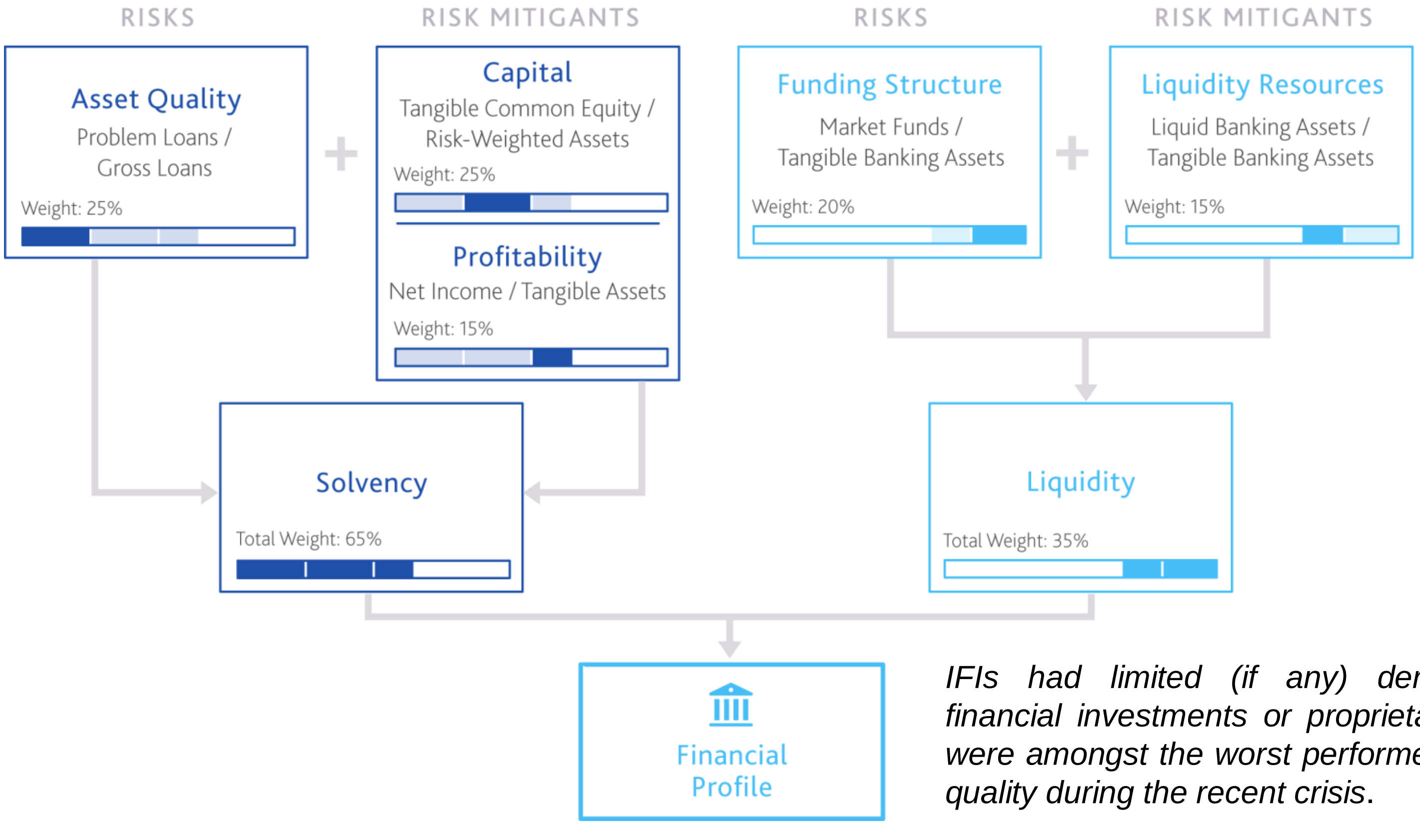
$43 million

$82 billion

56%	24%	20%
$180 bn	$78 bn	$64 bn
Unrated	Domestic CRAs	International CRAs

Rating Considerations – Solvency & Liquidity

Our assessment of an Islamic bank's financial profile is structured around key risks and their mitigants



RISKS

Asset Quality
Problem Loans / Gross Loans
Weight: 25%

RISK MITIGANTS

Capital
Tangible Common Equity / Risk-Weighted Assets
Weight: 25%

Profitability
Net Income / Tangible Assets
Weight: 15%

RISKS

Funding Structure
Market Funds / Tangible Banking Assets
Weight: 20%

RISK MITIGANTS

Liquidity Resources
Liquid Banking Assets / Tangible Banking Assets
Weight: 15%

Solvency
Total Weight: 65%

Liquidity
Total Weight: 35%

Financial Profile

IFIs had limited (if any) derivatives, leveraged financial investments or proprietary trading but they were amongst the worst performers (GCC) for asset quality during the recent crisis.

Tangible assets = total assets less derivatives less goodwill and other intangibles

Tangible banking assets = **total assets less derivatives less goodwill and other intangibles less insurance investments**

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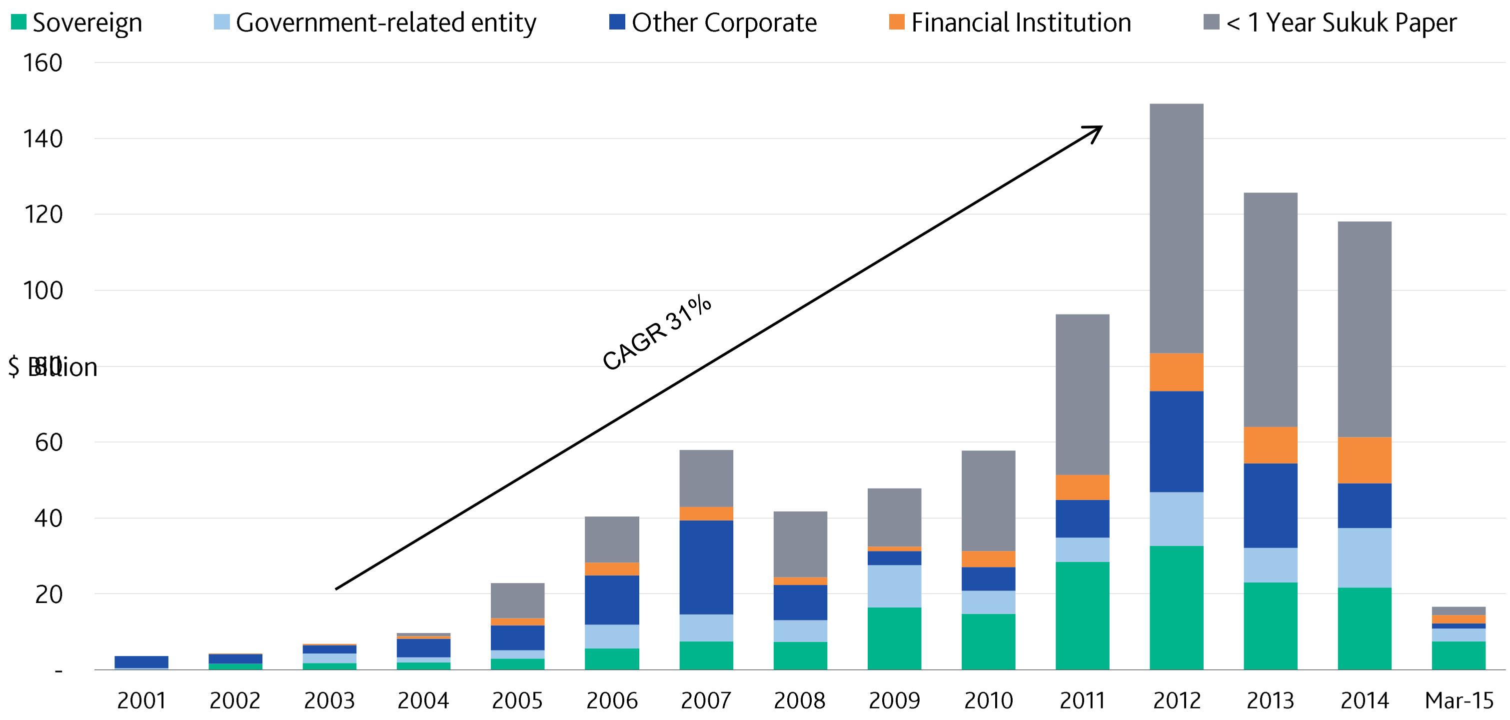
Sukuk Market Overview

Growth trends to continue..

Global Short Term & Long Term Sukuk issuances

Growth remains solid with new countries entering the market

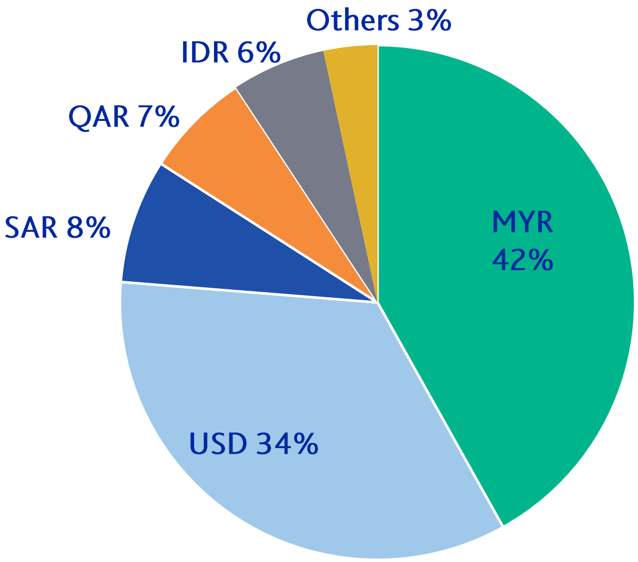


2012 was an outlier year due to strong EM inflows and 2014 saw Malaysian issuance reductions offset new volumes from entrants such as UK, Luxembourg, South Africa & Hong Kong.

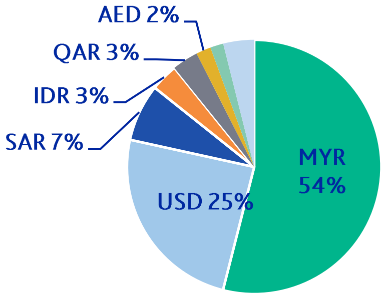
International Sukuk Issuances

GCC states' USD issuances are driving globalization of sukuk

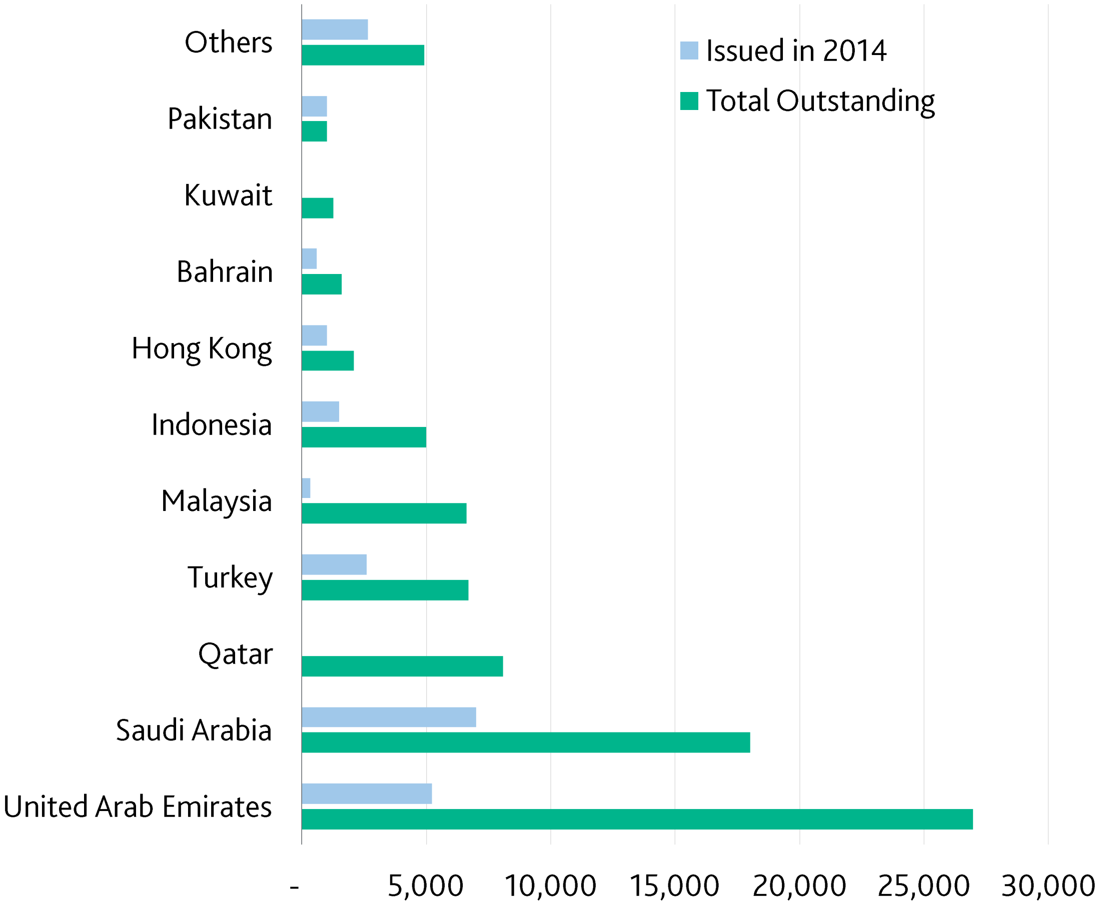
LT Sukuk Issuance by Currency in 2014



LT Sukuk Issuance by Currency 2001-2014



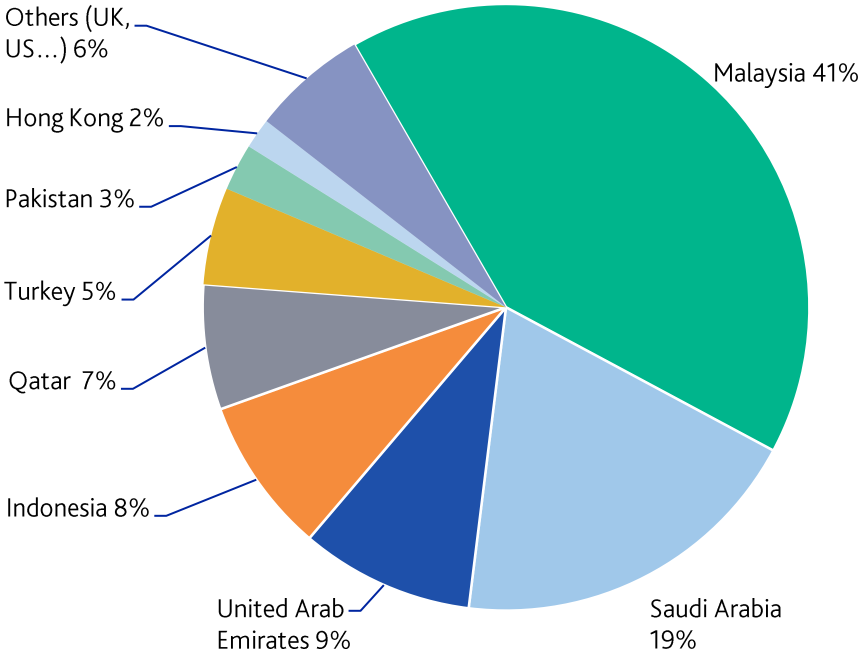
International Sukuk Issuance by Country



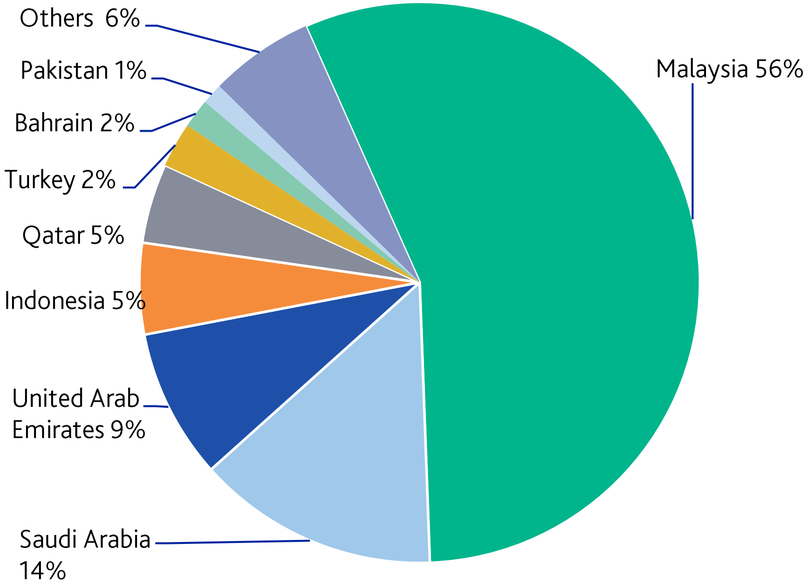
Long Term Sukuk Issuances

Market is globalizing with an increasingly diverse pool of countries

LT Sukuk Paper Issued in 2014 by Obligors' Country



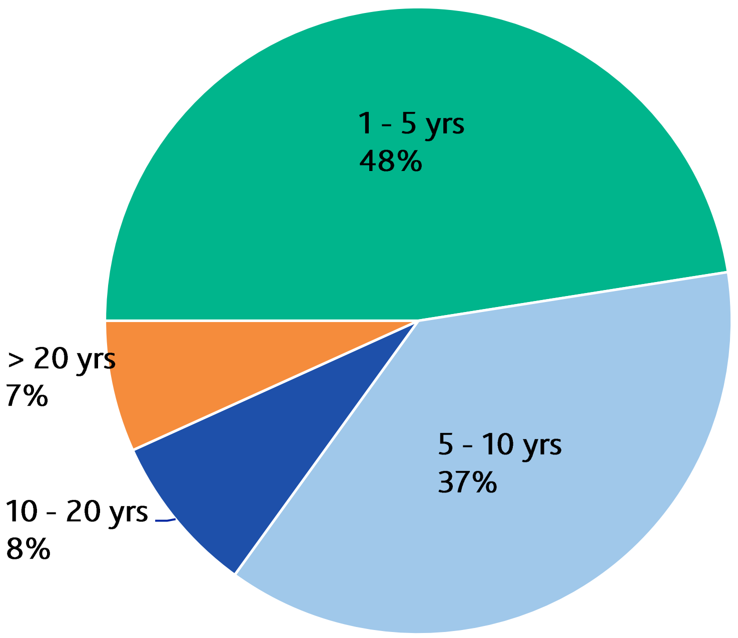
LT Sukuk Paper Outstanding - By Obligors' Country



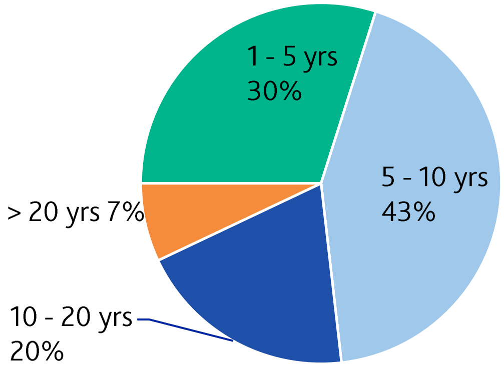
Long Term Sukuk Issuances

Maturity Mix is consistent with historical trends - 25% of sukuk are > 10yrs

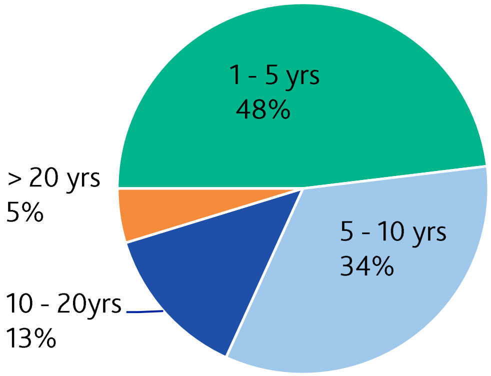
LT Sukuk Paper Issued in 2014- By Tenor



LT Sukuk Paper Outstanding - By Tenor



LT Sukuk Paper Issued by Tenor 2001- 2014



Long Term Sukuk Market: Drivers of Growth

Long sukuk market is globalizing with strong issuance volumes

The drivers of this continued growth include:

- global investors' increasing familiarity with sukuk instruments
- increasing 'Islamic' investment liquidity looking for sukuk
- increasing retail & corporate demand for Islamic financial services
- increasing standardisation of unsecured sukuk structures
- increased policy support from governments of Muslim and now non-Muslim countries

2014 Sukuk issuance was flat compared to 2013 at around $120 billion, driven by:

- 20% decrease in the Malaysian Sukuk market (representing more than 2/3 of global issuance), on the back of lower issuance from the government sector
- Mitigated by new sovereign entrants: UK, Luxembourg, South Africa

2015 Sukuk issuance trends:

- Positive impact from:
  - Declining oil prices, with net oil exporters (GCC and Malaysia) looking to tap the Sukuk market to fund their public spending plans
  - Growing number of new and emerging sukuk markets (Kenya, Turkey…)
- Negative effects from the tightening of liquidity and credit conditions, pushing up borrowing costs

3

Ratings of Sukuk

95% of outstanding sukuks are asset-based

Some Key Islamic Finance Principles

Prohibition of Interest/Usury - ‘Riba’

Most important, all conventional bond markets are debt / interest based, money should not be generated from money

The Importance of Assets

To encourage ‘tangible’ co-investment, risk/returns should be shared and asset based. Most sukuk ‘involve’ assets

Prohibition of Uncertainty/Gambling - ‘Gharar/Maysir’

‘Gambling’ prohibited, this affects ‘speculative’ derivatives with consequences for risk hedging

Islamic Securitisation – The ‘best’ solution?

Closer to Shari’ah ideal and allows matched asset/ liability funding

Ironically Islamic securitisation is the ‘best’ funding means to mitigate these issues as the assets and liabilities are perfectly **match funded** with genuine risk transfer. It provides lower funding costs plus a market-based valuation for securitised assets.

Shari’ah strongly encourages **asset-backed** finance. However the failures of conventional securitisation in the run-up to the crisis and regional preferences for name-lending has meant little appetite for such instruments despite the fact that only (rated) asset-backed sukuk performed much better than their asset-based (unsecured) counterparts.

Currently two main types of sukuk from credit risk perspective:

- Unsecured (Recourse) sukuk ratings are dependent on the risk analysis of the corporate, bank or sovereign
- Secured (Non Recourse) sukuk ratings are dependent of risk analysis of the asset or project cashflows

Tamweel Asset-backed deal remained Aa2 until redemption,

Tamweel Asset-based downgraded from A3 -> Baa3 until withdrawn

Sukuk Substance Over Form?

While the terms *musharaka*, *mudarabah*, *ijarah*, *wakalah* are widely applied in sukuk structures the actual legal structure can vary substantially.

Ijarah and Wakalah are more prevelant but to understand the true nature of the sukuk, the risk sharing, asset backed, profit sources the legal contracts must be inspected

95%+ of sukuk **do not** provide actual (or beneficial) asset ownership – they are **not** Asset Backed.

EoDs, ranking and payment obligations should 'mirror' conventional bonds by design

Hence there is a conflict between financing principles and the needs of the market

Shari'ah Compliance and Ratings

Moody's does not opine on Shari'ah compliance

Moody's considers events from the investor's perspective

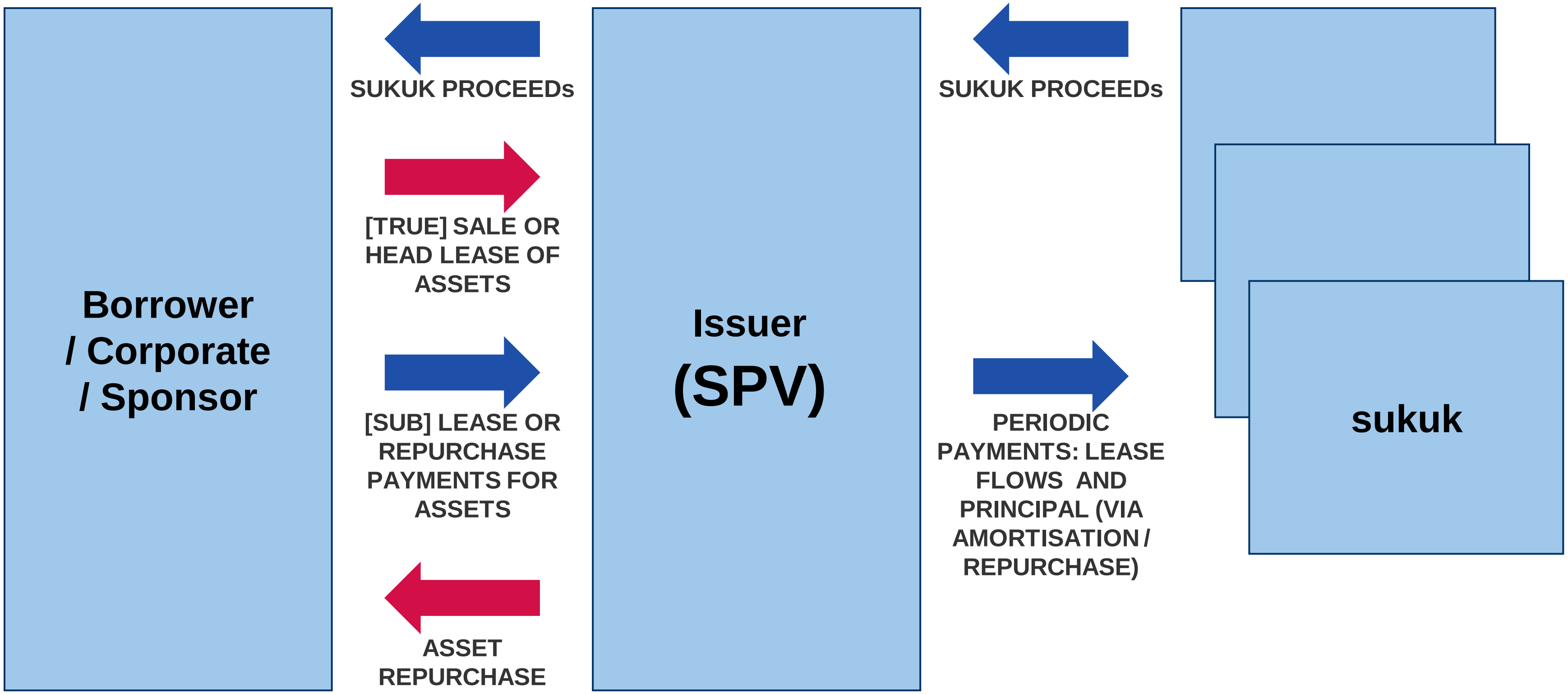
If Shari'ah can affect the Credit Risk then we will consider it in our analysis..

- What happens to investors in a Shari'ah related dispute?
- How does the structure mitigate currency risk
- How does the Shari'ah board affect the bank's risk profile

Most often Shari'ah drives structuring decisions that introduce excess complexity

This requires more legal analysis - we look at affected contracts and issuer obligations (if any)

Ijarah / Purchase Undertaking



Borrower / Corporate / Sponsor

SUKUK PROCEEDs

[TRUE] SALE OR HEAD LEASE OF ASSETS

[SUB] LEASE OR REPURCHASE PAYMENTS FOR ASSETS

ASSET REPURCHASE

Issuer (SPV)

SUKUK PROCEEDs

PERIODIC PAYMENTS: LEASE FLOWS AND PRINCIPAL (VIA AMORTISATION / REPURCHASE)

sukuk

Purchase Undertaking is critical

Who Owns the Assets?

If sukuk documentation features a ‘Purchase Undertaking’ they are unlikely to be:

- able to ‘independently’ sell sukuk assets
- protected from borrower’s insolvency
- senior to any other unsecured borrowers

i.e. they are just like conventional senior unsecured bonds **not** securitisations

Here conventional corporate rating analysis is more applicable and the credit risk is comparable to conventional bonds

Where is the Sukuk [Credit] Risk coming from?

If sukuk investors:

- do not have legal/beneficial/actual title to assets and associated cashflows
- are not [borrower] bankruptcy remote
- Have recourse to borrower…

...then corporate risk drives sukuk performance regardless of sukuk structure (for all Moody's rated sukuk)

Musharaka, Mudurabah, Ijara – all irrelevant. sukuk can be structured to provide an unsecured bond risk / return profile

Can ‘form over substance’ compliance cause loss?

In the case of the ‘The Investment Dar’ sukuk default the presiding judge in the case noted that:

“For all intents and purposes, the commercial result is equivalent to that of a deposit at interest”

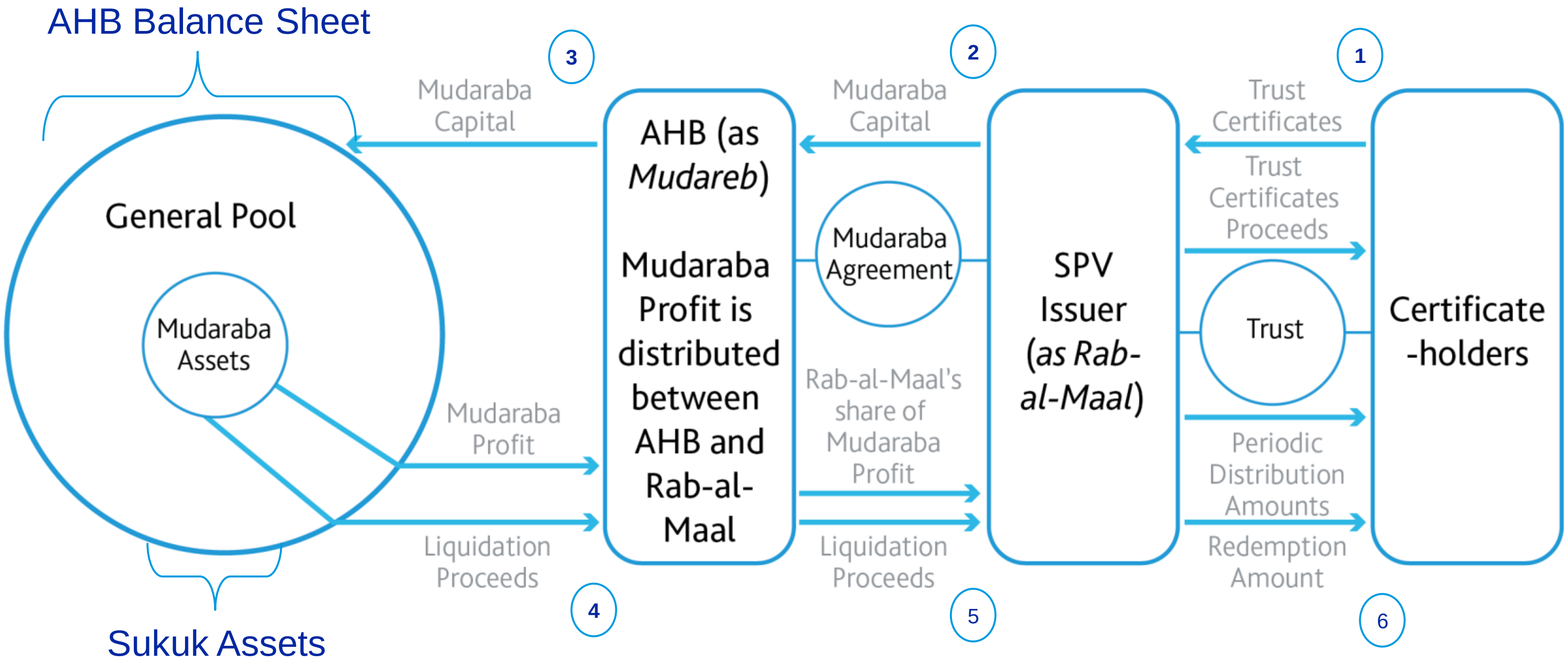
Hence, the court issued a summary judgment ordering payment of the capital amount but not the anticipated profit required, this necessitated consideration at a full trial, so at this stage **the principal was repayable but not profit/interest**.

Many sukuk are, in commercial substance, equivalent to unsecured debt, if in distress can the defaulter avoid paying profit?

This particular ‘defence’ is more related to legal ‘capacity’ and more relevant to Islamic counterparties. The entire sector eagerly awaited the final case and judgement but it did not go to trial...

New Capital Instruments - Hybrid Tier 1 Sukuk

Example 1 – Al Hilal Bank (AHB) Extract from OC



Hybrid Tier 1 Sukuk

Summary

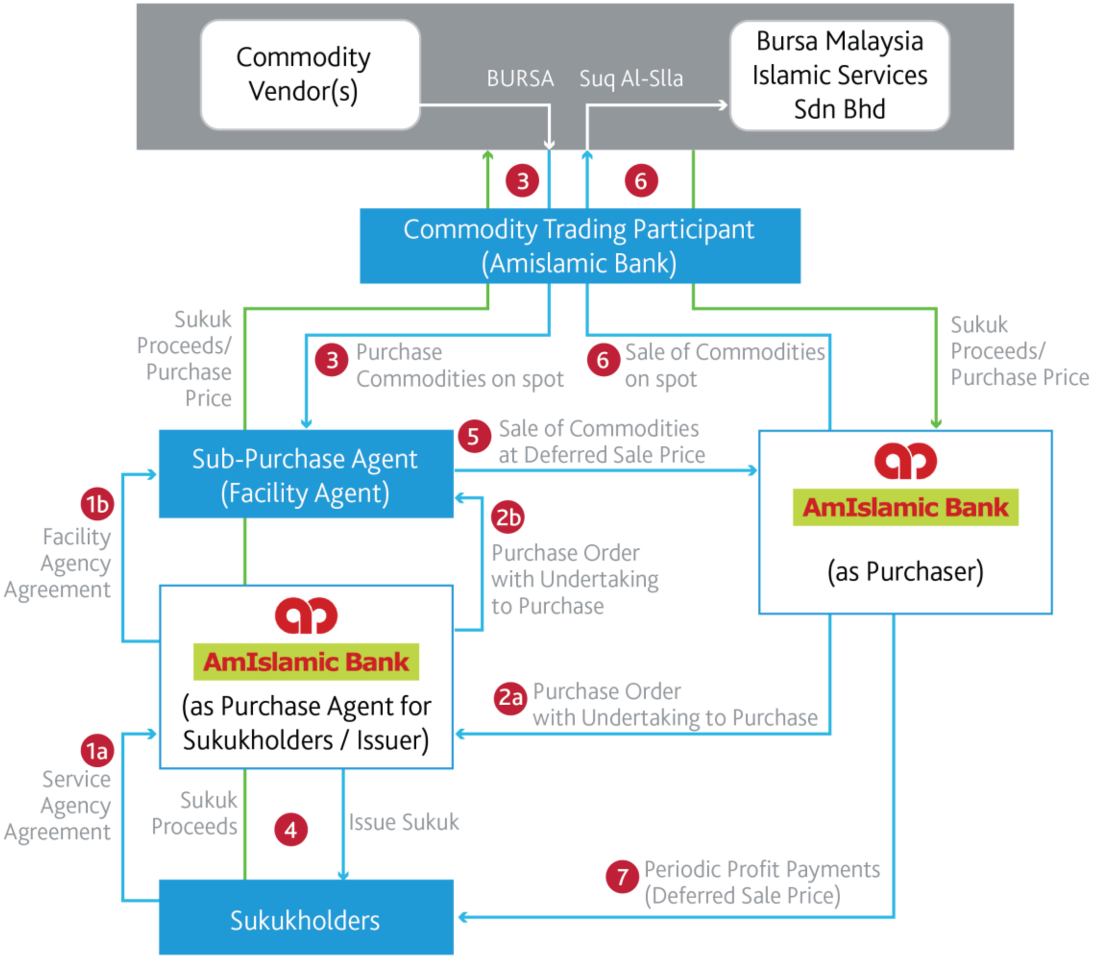
- Equivalent to a conventional hybrid bond which would qualify as Tier1 capital
- In substance such sukuk are more closer to Shari'ah principles of risk sharing than senior unsecured sukuk

Structural Highlights

- Mudaraba contracts (agency), perpetual (no fixed redemption date), non-cumulative, junior subordinated securities.
- The issuer (obligor bank) can without prior consent of the sukuk holders amend the terms and conditions of the sukuk/certificates solely for it to qualify as Tier1 capital under the local regulatory framework

Tier 2 Sukuk

Example 2 (Extract from OC)



Tier 2 Sukuk

Summary

- Equivalent to a conventional subordinated bond which would qualify as Tier2 capital
- In substance such sukuk are also more closer to Shari’ah principles of risk sharing than senior unsecured sukuks

Structural Features

- Structures seen so far murabaha and hybrid/ two pool structure under the Murabaha and Mudaraba contracts constituting subordinated obligations of the issuer with a minimum of 5 year term (may vary)
- Call option at the discretion of the Issuer
    1. on a regulatory event (no longer eligible as Tier 2 capital)
    2. With written approval at the end of [5] years
    3. Tax reasons

Hybrid Tier 1 vs Tier 2 Sukuk

	Hybrid Tier 1 (Al Hilal Bank)	Tier 2 (AmIslamic)
Term	**Perpetual** (callable)	5years at least upto the program tenure ([30] years)
Instrument Ranking	**(1) Tier 1 capital** (2) direct, unsecured, conditional and subordinated and junior to all senior obligations	(1) Tier 2 capital (2) direct, unsecured, conditional and subordinated and junior to all senior obligations
Profit Suspension	**Yes, discretionary, non-cumulative (not a dissolution event - EoD)**	No
Restrictions related to profit suspension	**(1) cannot declare or distribute dividends** **(2) profit suspension for pari passu instruments** **(3) cannot redeem or purchase equity or other pari passu instruments**	NA
Dissolution events (EoD)	(1) non-payment of any amount due upon discretionary profit suspension (2) Insolvency (3) Winding-up (4) Analogous events	(1) non-payment of amount due (2) Insolvency (3) Winding-up (4) Analogous events
Write Down on PONV	(1) Full or partial write down (2) Convertible to equity	(1) Full or partial write down
Definition of PONV	(1) Non-viable without (a) write-down or (b) public injection	(1) Non-viable without (a) write-down or (b) public injection
Definition of Non-Viable	(1) Insolvent, bankrupt, unable to pay material obligations (2) Any other event specified by regulator	(1) Insolvent, bankrupt, unable to pay material obligations (2) Any other event specified by regulator
Loss absorption	(1) After common shares (2) Prior to any write-down of tier 2 obligations	(1) After common shares (2) After write-down of tier 1 obligations (3) Prior to depositors or creditors

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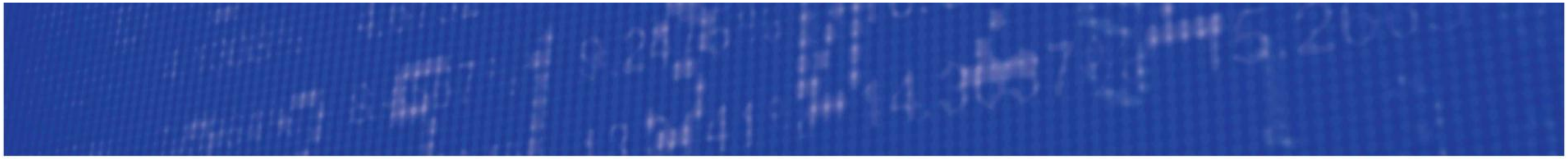

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Appendices

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Appendix:
Moody's New Banking Methodology

Agenda

1. **Highlights**
2. **Macro Profile**
3. **Financial Profile**
4. **Government Support**

Moody’s Bank Rating Universe

950

baseline credit assessments

This is our core analytical universe and the focus of our impact assessment

A WIDE RANGE OF GEOGRAPHIES:

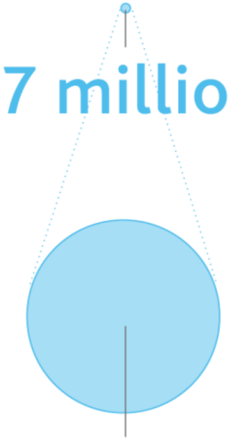
96

countries

2,500

issuing entities

BALANCE SHEETS RANGING FROM:

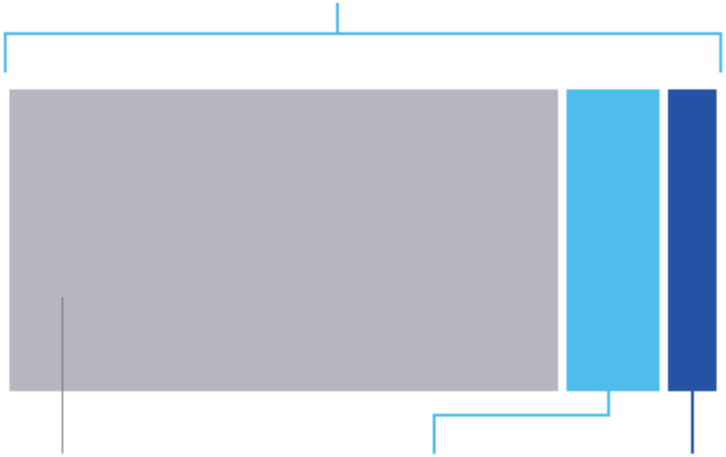


$7 million

$3.3 trillion

RATED DEBT OUTSTANDING

$6.6 trillion



78% senior unsecured

14% dated subordinated

8% junior sub and preferred stock

Highlights of the new global bank methodology

Proposed changes to our methodology responds to fundamental changes in the industry.

- Baseline Credit Assessment (BCA) structured around a new global Scorecard
  - Fully integrates key financial metrics and analytical judgments
  - BFSRs to be withdrawn
  - No emerging market bank 'discount'

- New 'Macro Profile' integrates system-level pressures into our analysis
  - Produced with Sovereign Risk Group, based on macro-economic and financial indicators
  - Each financial factor scored as a function of both a financial ratio and the Macro Profile

Highlights of the new global bank methodology

Proposed changes to our methodology responds to fundamental changes in the industry.

- BCA Scorecard focussed on five financial factors, applying five financial metrics
  - Backtesting has shown these to be strongly predictive of failure / support need
  - Analysts and rating committees to consider additional ratios as relevant
  - Forward-looking scenario analysis incorporated directly into the financial ratios

- Initiation of a “Loss Given Failure” component to our analysis (not in GCC)
  - Distinguishes loss severity by individual creditor classes for banks subject to resolution
  - Recognises that deposits may be preferred to senior unsecured debt in resolution

Limited changes for GCC banks

Introduction of Loss Given Failure component responds to new resolution regimes. This does not impact MENA banks at this stage.

KEY CHANGES

- **NEW**: Captures bank's operating environment with addition of **Macro Profile**
- Simplified Scorecard:
  - Incorporates **forecasts**
  - Quantifies our **credit judgments** within scorecard
  - Different **financial ratios** used to capture bank's liquidity and solvency

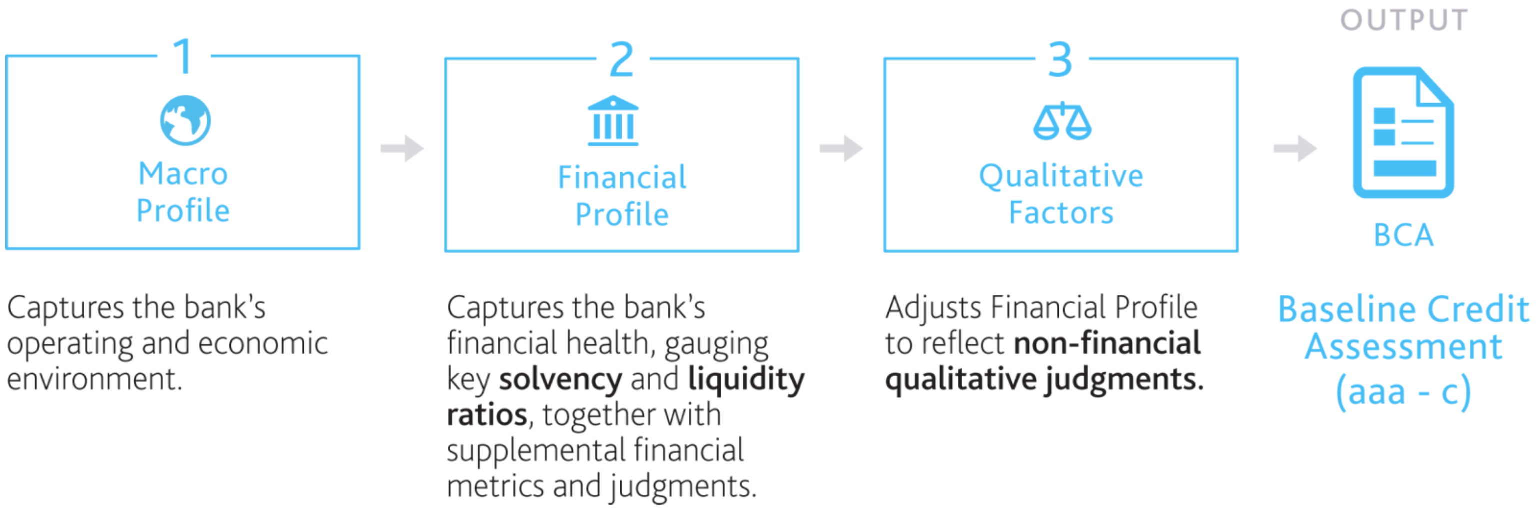
- Now combines parent and cooperative group support

- **NEW**: Approach to notching **up** or **down** debt and deposits of banks in systems with 'Operational Resolution Regimes' (e.g., EU and US) by:
  - Size of loss (resolution type)
  - Amount of subordination
  - Size of debt class
- Outside of these regimes, current notching continues
- Notching based on "waterfall" analysis of post-failure balance sheet in resolution

- **NEW**: Now adds support at the instrument class level, rather than the bank level
- **NEW**: We will use sovereign rating rather than systemic support indicators (SSI)

BCA Structure

Our bank BCAs describe the probability of a bank defaulting on any of its rated instruments, in the absence of external support. There are three stages to the BCA analysis: a ‘Macro Profile’ reflecting system risks, the Financial Profile, incorporating key metrics, and additional Qualitative Factors.



OUTPUT

1 Macro Profile

Captures the bank's operating and economic environment.

2 Financial Profile

Captures the bank's financial health, gauging key **solvency** and **liquidity ratios**, together with supplemental financial metrics and judgments.

3 Qualitative Factors

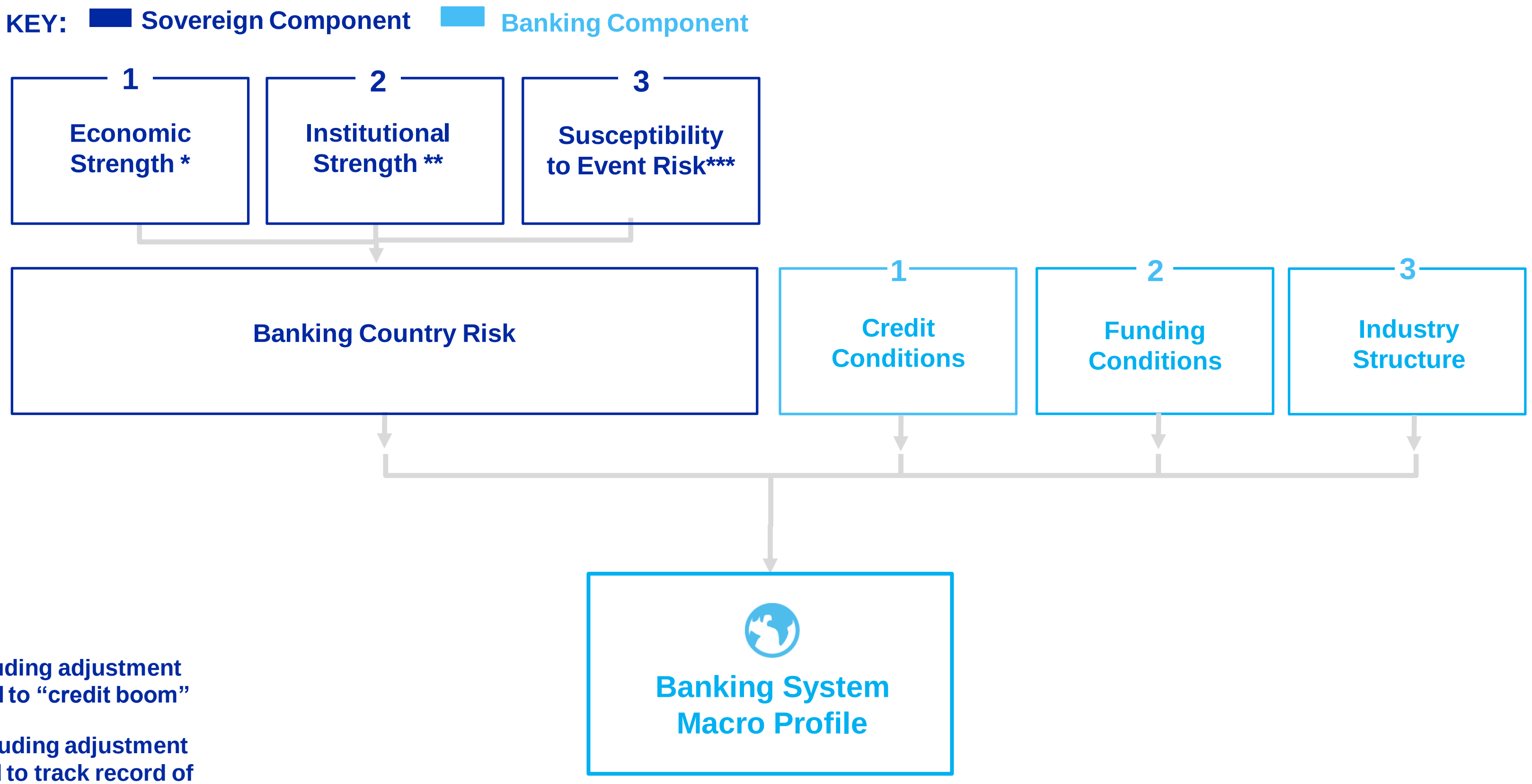
Adjusts Financial Profile to reflect **non-financial qualitative judgments.**

BCA

Baseline Credit Assessment (aaa - c)

Macro Profile

Macro Profile builds on three components from our sovereign scorecard, and three banking components. Credit Conditions factor gains more weight as metrics deteriorate.



* Excluding adjustment related to "credit boom"

** Excluding adjustment related to track record of sovereign default

*** Excluding banking factors

Macro Profile Rank Ordering

Macro Profiles for selected systems (March 2015).

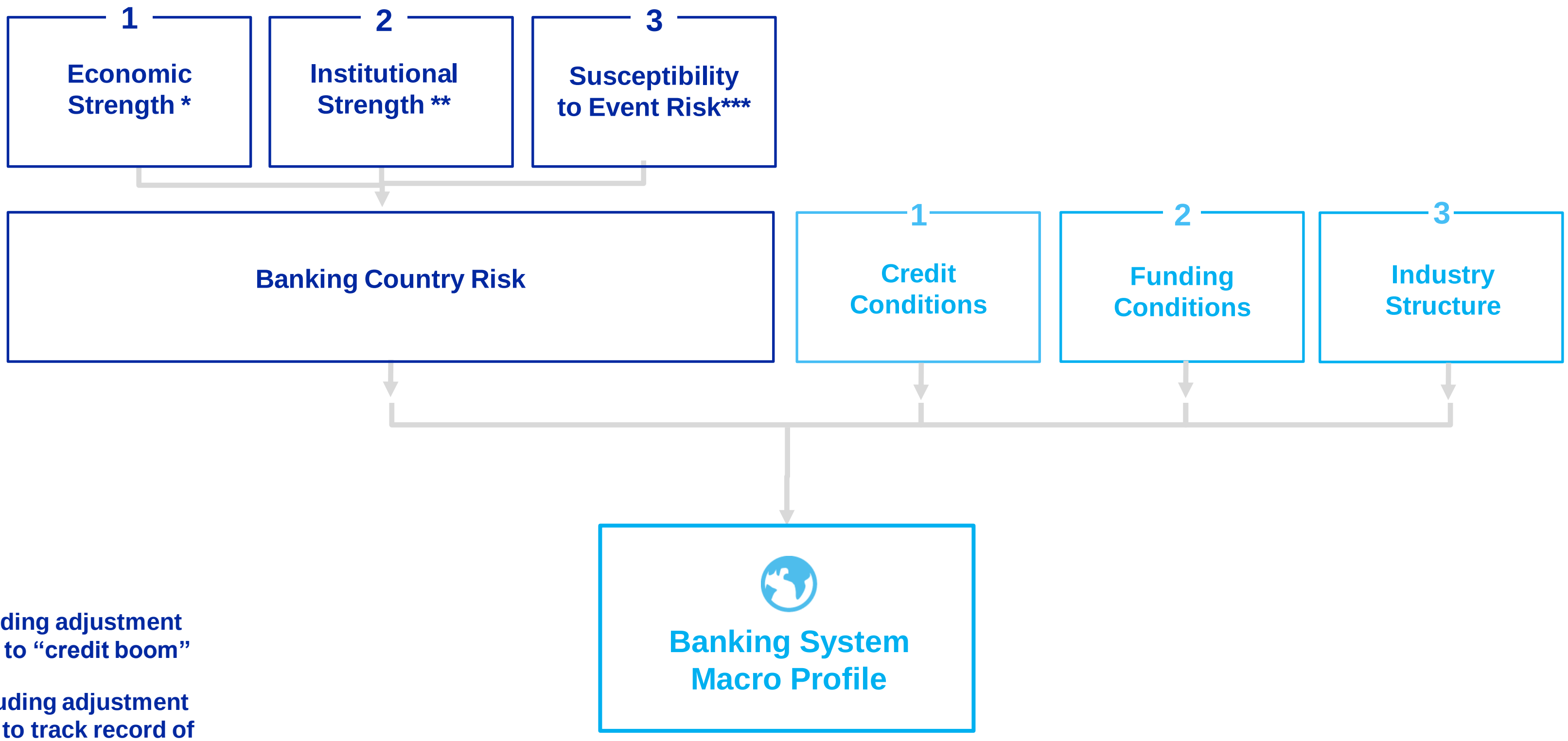
Selected Macro Profile Rank Ordering

Country	Banking Country Risk	Credit Conditions	Funding Conditions	Industry Structure	Macro Profile
AUSTRALIA	Very Strong	0	-1	1	**Very Strong**
CANADA	Very Strong	-2	0	1	**Very Strong -**
FRANCE	Very Strong	0	-1	0	**Very Strong -**
GERMANY	Very Strong	0	0	-1	**Very Strong -**
UNITED KINGDOM	Very Strong	-1	0	0	**Very Strong -**
UNITED STATES	Very Strong	-1	1	-1	**Very Strong -**
JAPAN	Very Strong -	-1	0	0	**Strong +**
KOREA	Very Strong -	0	0	-1	**Strong +**
MEXICO	Strong	-1	0	0	**Strong -**
SAUDI ARABIA	Strong	-1	0	0	**Strong -**
BRAZIL	Strong -	0	0	-1	**Moderate +**
CHINA	Strong	-2	0	0	**Moderate +**
ITALY	Strong +	-2	-1	0	**Moderate +**
SPAIN	Strong	-2	0	0	**Moderate +**
INDIA	Moderate +	0	0	-1	**Moderate**
INDONESIA	Moderate	0	0	0	**Moderate**
SOUTH AFRICA	Strong -	-1	-1	0	**Moderate**
TURKEY	Strong -	-2	0	0	**Moderate**
KAZAKHSTAN	Moderate -	0	0	-1	**Weak +**
RUSSIA	Weak +	0	0	0	**Weak +**
AZERBAIJAN	Weak -	0	0	0	**Weak -**
ARGENTINA	Very Weak +	0	0	-1	**Very Weak**
CYPRUS	Strong -	-5	-3	0	**Very Weak**
EGYPT	Weak	-2	-1	0	**Very Weak**
UKRAINE	Very Weak -	0	-1	0	**Very Weak -**

Macro Profile

Macro Profile builds on three components from our sovereign scorecard, and three banking components. Credit Conditions factor gains more weight as metrics deteriorate.

KEY: ■ **Sovereign Component** ■ **Banking Component**



1
Economic Strength *

2
Institutional Strength **

3
Susceptibility to Event Risk***

Banking Country Risk

1
Credit Conditions

2
Funding Conditions

3
Industry Structure

Banking System Macro Profile

*** Excluding adjustment related to “credit boom”**

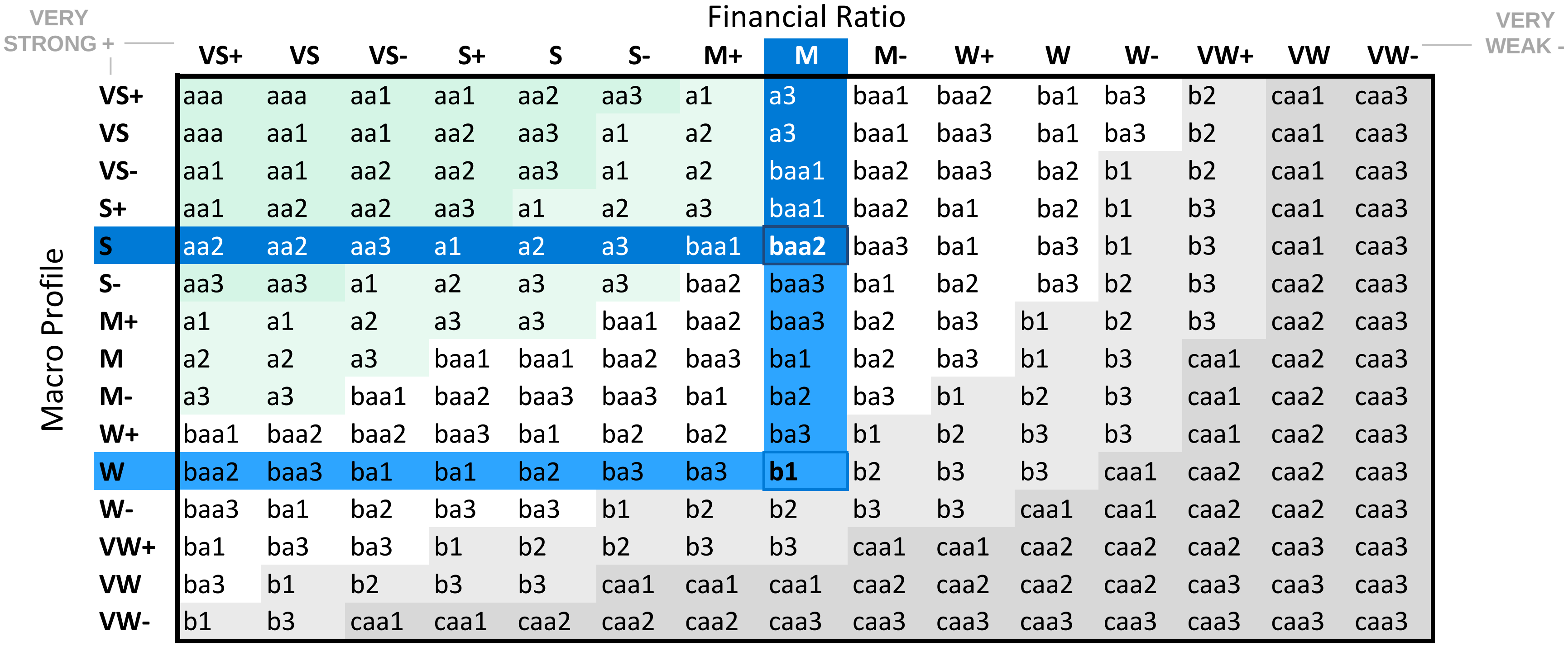
**** Excluding adjustment related to track record of sovereign default**

***** Excluding banking factors**

Macro Profiles & Financial Ratios Results

Rating of banks in weak systems are less sensitive to their individual financial metrics and more reflective of changes in the macro environment.

Example:	Bank's Financial Ratio	Country's Macro Profile	Initial Score
Bank in Country 1	**Moderate**	**Strong**	**baa2**
Bank in Country 2	**Moderate**	**Weak**	**b1**



VERY STRONG +

VERY WEAK -

Financial Ratio

Macro Profile

	VS+	VS	VS-	S+	S	S-	M+	M	M-	W+	W	W-	VW+	VW	VW-
VS+	aaa	aaa	aa1	aa1	aa2	aa3	a1	a3	baa1	baa2	ba1	ba3	b2	caa1	caa3
VS	aaa	aa1	aa1	aa2	aa3	a1	a2	a3	baa1	baa3	ba1	ba3	b2	caa1	caa3
VS-	aa1	aa1	aa2	aa2	aa3	a1	a2	baa1	baa2	baa3	ba2	b1	b2	caa1	caa3
S+	aa1	aa2	aa2	aa3	a1	a2	a3	baa1	baa2	ba1	ba2	b1	b3	caa1	caa3
S	aa2	aa2	aa3	a1	a2	a3	baa1	**baa2**	baa3	ba1	ba3	b1	b3	caa1	caa3
S-	aa3	aa3	a1	a2	a3	a3	baa2	baa3	ba1	ba2	ba3	b2	b3	caa2	caa3
M+	a1	a1	a2	a3	a3	baa1	baa2	baa3	ba2	ba3	b1	b2	b3	caa2	caa3
M	a2	a2	a3	baa1	baa1	baa2	baa3	ba1	ba2	ba3	b1	b3	caa1	caa2	caa3
M-	a3	a3	baa1	baa2	baa3	baa3	ba1	ba2	ba3	b1	b2	b3	caa1	caa2	caa3
W+	baa1	baa2	baa2	baa3	ba1	ba2	ba2	ba3	b1	b2	b3	b3	caa1	caa2	caa3
W	baa2	baa3	ba1	ba1	ba2	ba3	ba3	**b1**	b2	b3	b3	caa1	caa2	caa2	caa3
W-	baa3	ba1	ba2	ba3	ba3	b1	b2	b2	b3	b3	caa1	caa1	caa2	caa2	caa3
VW+	ba1	ba3	ba3	b1	b2	b2	b3	b3	caa1	caa1	caa2	caa2	caa2	caa3	caa3
VW	ba3	b1	b2	b3	b3	caa1	caa1	caa1	caa2	caa2	caa2	caa2	caa3	caa3	caa3
VW-	b1	b3	caa1	caa1	caa2	caa2	caa2	caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3

Example BCA Scorecard: Financial Profile

Assigned score incorporates forward-looking expectations, auxiliary ratios, qualitative aspects & stress scenarios.

Example Scorecard:

Financial factors

Score incorporating Macro Profile

Qualitative factors quantified

Financial Profile	**Historic Ratio**	**Initial Score**	**Expected trend**	**Assigned Score**	**Key driver #1**	**Key driver #2**
Solvency						
Asset Risk						
Problem Loans / Gross Loans	2.0%	a1	↓↓	**baa2**	Geographical concentration	Capital market risk
Capital						
Tanigible Common Equity / RWA	8.5%	ba2	↔	**b1**	Risk-weighted capitalisation	Nominal leverage
Profitability						
Net Income / Tangible Assets	0.5%	baa2	↔	**a3**	Earnings quality	
Combined Solvency Score				**baa3**		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	15.0%	a2	↔	**baa2**	Term structure	
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	20.0%	baa1	↑	**baa1**	Expected trend	Intragroup restrictions
Combined Liquidity Score		a3		**baa2**		
Financial Profile				**baa3**		

Qualitative Factors

We may adjust our initial BCA score by one or more notches if we judge any of these factors has a material bearing on the bank's overall risk profile.

1

Business diversification

Gauges a bank's sensitivity to deterioration in a single business line.

+ Positive adjustments

E.g. a one-notch increase for a firm with a diverse range of business activities that provide an overall reliable earnings stream.

- Negative adjustments

E.g. a one-notch decrease for a bank which derives more than about three-quarters of its revenues or earnings from a single business line.

2

Opacity and complexity

An institution's riskiness increases with its complexity, other things being equal.

+ Positive adjustments

None.

- Negative adjustments

E.g. a one-notch decrease (or more in extreme cases) if a bank has numerous business lines across many geographies and legal entities, significant exposure to derivatives, complex legal structure, large, complex and / or long-dated exposures to other financial institutions.

3

Corporate behavior

A bank's creditworthiness can be influenced by what we term its "corporate behavior", which can also signal other concerns.

+ Positive adjustments

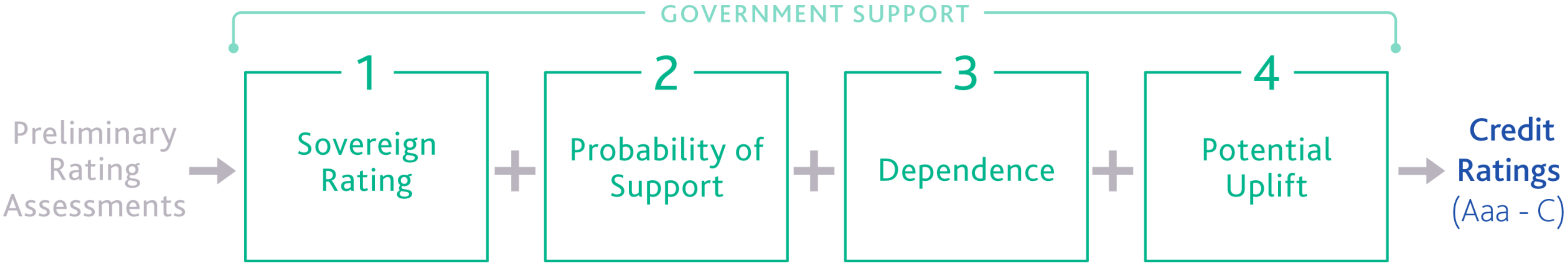
Rare one-notch increases, e.g. from sustained exemplary stewardship over time with tangible impact on the risk profile

- Negative adjustments

One or more notch decreases considering the following factors: key man risk, insider and related party risks, strategy and management, dividend policy, and compensation policy.

Government Support

Government support is assessed for each creditor class and uplift derived using JDA.



We use the Sovereign rating to indicate government creditworthiness

95-100%	**Government Backed**
70-94%	**Very High**
50-69%	**High**
30-49%	**Moderate**
0-29%	**Low**

90%	**Very High**
70%	**High**
50%	**Moderate**

Notching within the JDA range is a Rating Committee judgment

Example Bank:		Preliminary Rating Assessment	Sovereign Rating	Probability of Support	Dependence	JDA Range	Credit Rating
Adj. BCA: baa3	Junior Deposits	**baa1 (+2)**	Aaa	**Moderate**	Very High	**+1 to +1**	**A3 (+1)**
	Senior Unsecured	**baa2 (+1)**		**Moderate**		**+1 to +1**	Baa1 (+1)
	Subordinated Debt	ba1 (-1)		Low		**+0 to +1**	**Ba1 (+0)**

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