ESTIMATION OF OUTPUT FOR ISLAMIC BANKING IN THE NATIONAL ACCOUNTS

KHAIRUL AIDAH SAMAH
National Accounts Statistics Division
Department of Statistics Malaysia

@StatsMalaysia   www.dosm.gov.my

INTRODUTION

METHODOLOGY

FINDINGS

CONCLUSION

- On the 10th meeting in Paris, France, from 13 to 15 April 2016, the Advisory Expert Group (AEG) on National Accounts:

    ✓ discussed issues on the implementation of the 2008 SNA recommendations for Islamic finance.

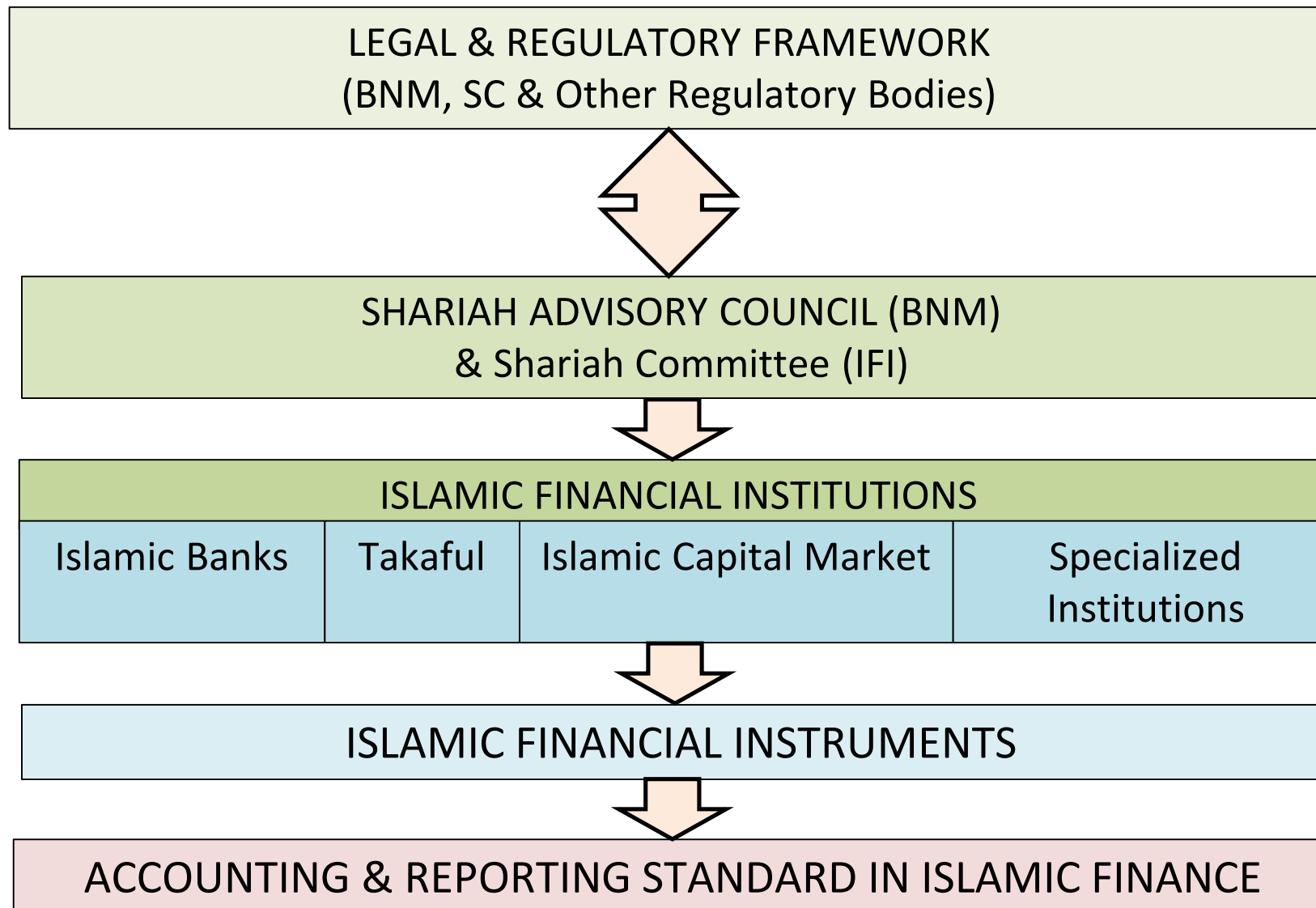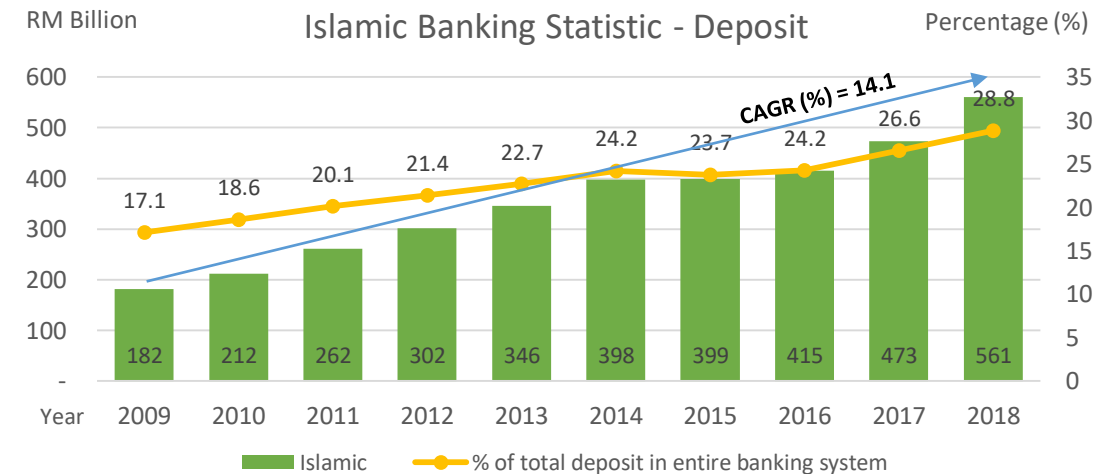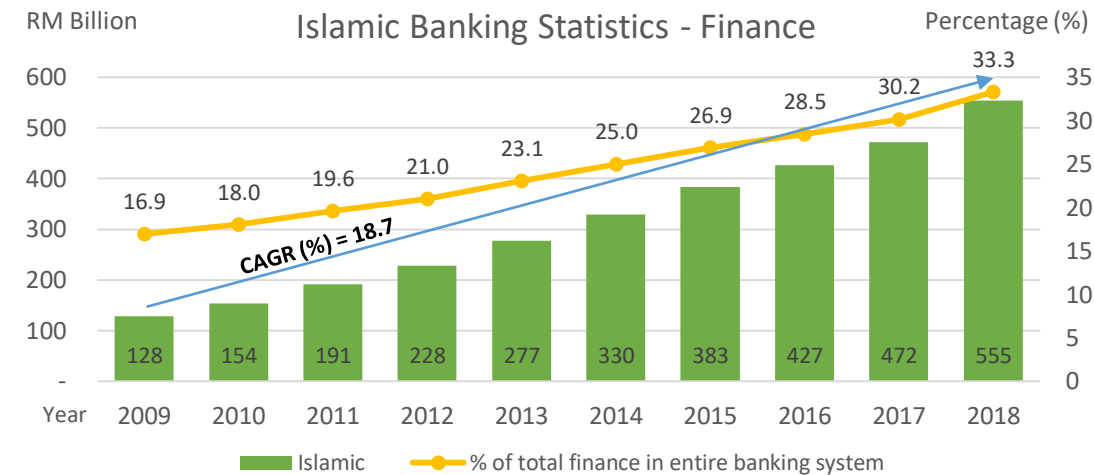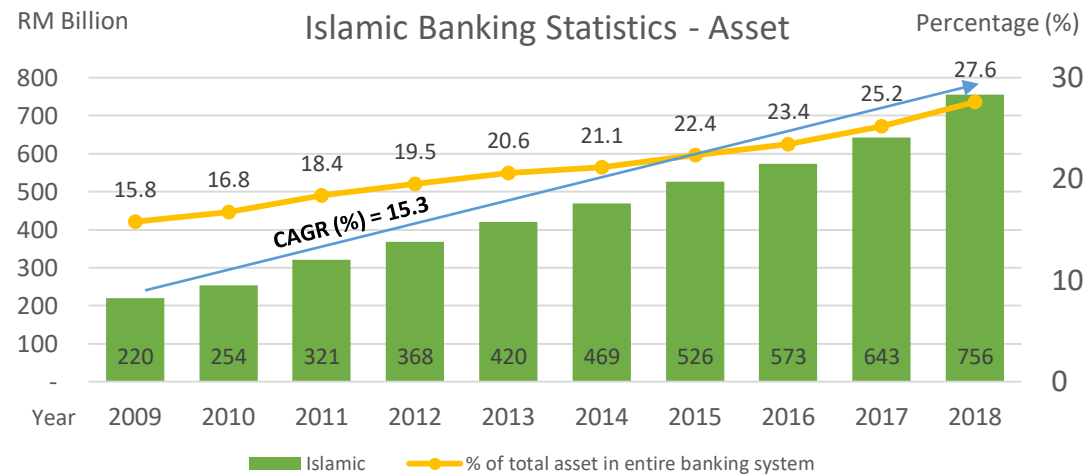   ✓ noted the differences in business arrangements between Islamic finance and conventional finance and recognized the systemic importance of Islamic finance for some economies and their relative rapid growth.

    ✓ agreed that further research on the statistical implications of Islamic finance in the national accounts is required and that practical guidance on the treatment of Islamic finance transactions needs to be developed.

- These issues had also been raised during several meetings in the Arab region organized by the Statistics Division of the Economic and Social Commission for Western Asia (ESCWA).

- the Statistics Division of ESCWA and UNSD created a Task Force on Islamic Finance under the auspices of the Intersecretariat Working Group on National Accounts (ISWGNA) to address the statistical treatment of Islamic finance in the national accounts. The Task Force comprises representatives and experts from countries where Islamic finance is important including Malaysia, international and regional organizations and academia.

Financial System

- **Banking System**
  - Bank Negara Malaysia
  - Banking Institutions
    - Conventional
    - Islamic Banks
- **Non-Bank Financial Intermediaries**
  - Provident Fund (EPF)
  - Insurance & Takaful
  - Development Financial Institutions
  - Saving Institutions
- **Money Market / Foreign Exchange**
  - Foreign Exchange/ Money Changer
- **Capital Market**
  - Stock / Equity
  - Bond & Sukuk
  - Derivatives
- **Offshore**
  - Labuan Offshore

LEGAL & REGULATORY FRAMEWORK
(BNM, SC & Other Regulatory Bodies)

SHARIAH ADVISORY COUNCIL (BNM)
& Shariah Committee (IFI)

ISLAMIC FINANCIAL INSTITUTIONS

Islamic Banks	Takaful	Islamic Capital Market	Specialized Institutions

ISLAMIC FINANCIAL INSTRUMENTS

ACCOUNTING & REPORTING STANDARD IN ISLAMIC FINANCE

Abbreviation :
BNM : Bank Negara Malaysia
SC : Securities Commission
IFI : Islamic Financial Institution

Islamic Banking Statistics - Finance

RM Billion | Percentage (%)

CAGR (%) = 18.7

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Islamic	128	154	191	228	277	330	383	427	472	555
% of total finance	16.9	18.0	19.6	21.0	23.1	25.0	26.9	28.5	30.2	33.3

Legend: Islamic — % of total finance in entire banking system

Islamic Banking Statistics - Asset

RM Billion | Percentage (%)

CAGR (%) = 15.3

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Islamic	220	254	321	368	420	469	526	573	643	756
% of total asset	15.8	16.8	18.4	19.5	20.6	21.1	22.4	23.4	25.2	27.6

Legend: Islamic — % of total asset in entire banking system

Islamic Banking Statistic - Deposit

RM Billion | Percentage (%)

CAGR (%) = 14.1

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Islamic	182	212	262	302	346	398	399	415	473	561
% of total deposit	17.1	18.6	20.1	21.4	22.7	24.2	23.7	24.2	26.6	28.8

Legend: Islamic — % of total deposit in entire banking system

❖ Islamic finance does not operate in the same way as conventional finance as it follows the Shari'ah Islamic law, principles and rules.

❖ The Shari'ah Islamic law does not permit receipt and payment of "riba" (interest), "gharar" (excessive uncertainty), "maysir" (gambling), and short sales or financing activities that it considers harmful to society.

❖ Instead, the parties must share the risks and rewards of a business transaction and the transaction should have a real economic purpose without undue speculation, and not involve any exploitation of either party.

- Malaysia is among the pioneers in introducing Islamic Banking in its banking system.

- Thus, the measurement of output of Islamic Banking is important to Malaysia.

- To invent the calculation of Financial Intermediation Services for Islamic Banking by using principle guidelines of FISIM which basically based on conventionally financing activity.

Total Output

= **Implicit Service Charge** + **Explicit Service Charge**

SNA 2008 para 6.163

FISIM

SNA 2008 para 6.161: e.g
i.   Other Operating Income
   • Income from Investment, Fee, Commission, Provision
   • Other Income
ii. Non Operating Income

- **Estimation of FISIM – Islamic Finance**

  FISIM is calculated using the following formula:

  $$FISIM = FISIM \text{ on Financing} + FISIM \text{ on Deposits}$$

  Where:

  FISIM on Financing = **Stock of Financing* [Financing Rate – Reference Rate]**

  FISIM on Deposits = **Stock of Deposits * [Reference Rate – Profit Rate]**

- **Reference Rate: Midpoint** between the financing and deposit rate

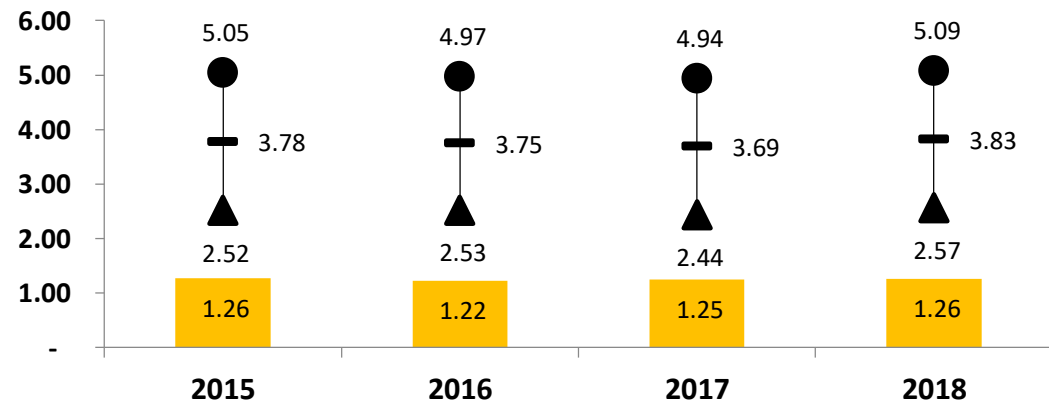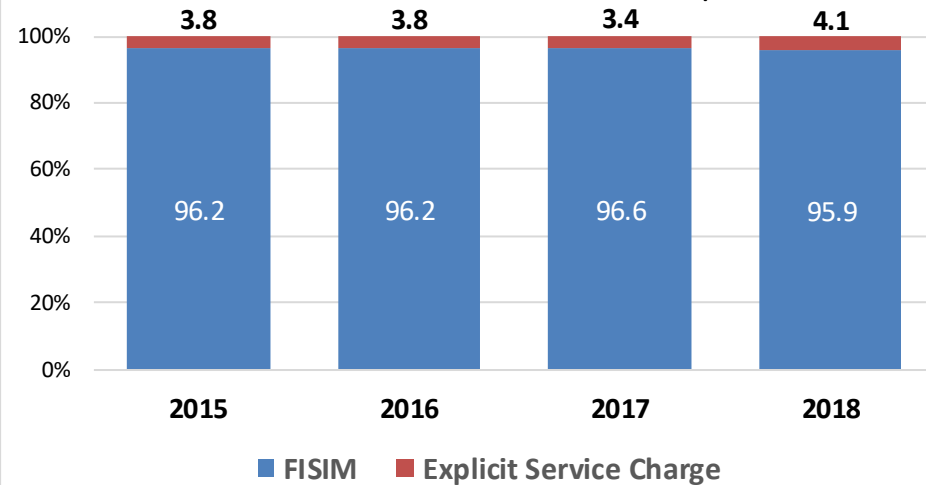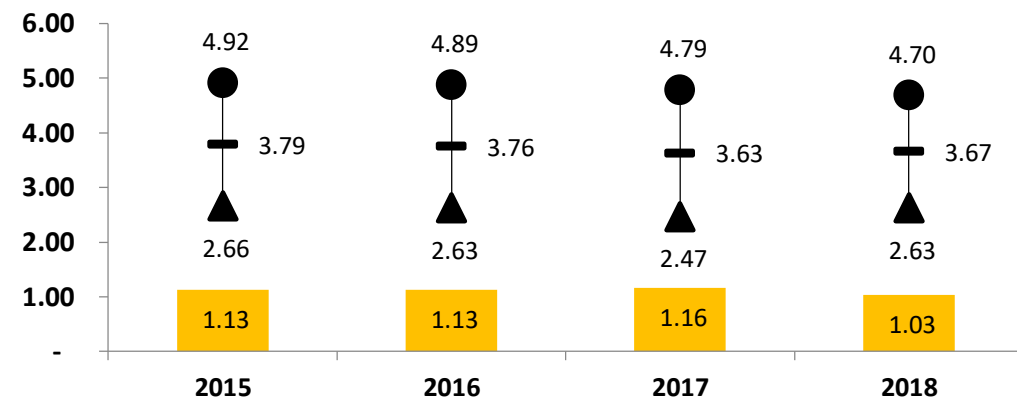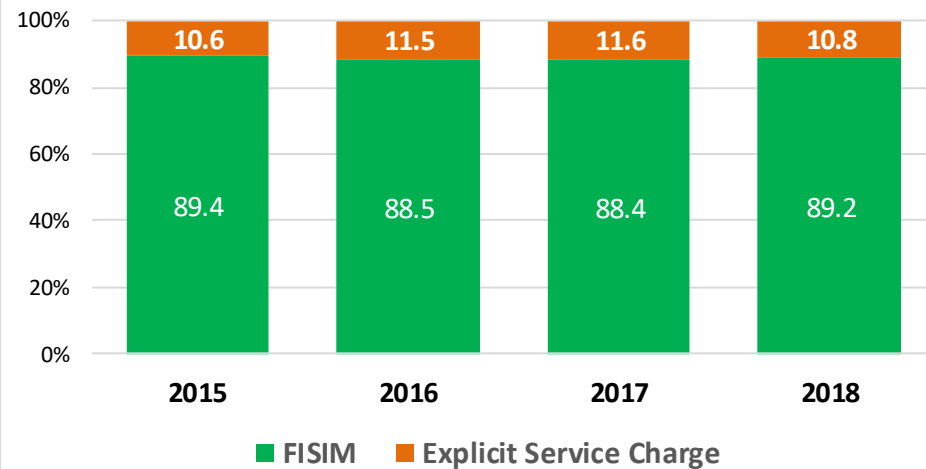 - less volatile
  - FISIM values with greater transparency

Mechanism of calculating FISIM and Output for Islamic Banking:

	Source	Item	Formula
1	Assets, Liabilities and Equities Statements	Financing and Advances	yL
2	Income and Expenditure Statement	Finance Income	a
3	Derive	Notional Financing Rate	rL=yL/a
4	Assets, Liabilities and Equities Statements	Deposits Accepted	yD
5	Income and Expenditure Statement	Finance Expense	b
6	Derive	Notional Deposits Rate	rD=yD/b
7	Derive	Reference Rate	rr =(rL+rD)/2
8	Derive	Finance rate spread	rL-rr @ rr-rD
9	Derive	FISIM on Finance	(rL-rr)*yL
10	Derive	FISIM on Deposits	(rr-rD)*yD
11	Derive	Total FISIM	(9) + (10)
12	Income and Expenditure Statement	Fee and Commission Income	(12)
		Output	**(9)+(10)+(12)**

$$FISIM = (rL - rr)\, yL + (rr - rD)\, yD$$

FISIM on finance

FISIM on deposits

Islamic Banks: Share of Output

	2015	2016	2017	2018
Explicit Service Charge	10.6	11.5	11.6	10.8
FISIM	89.4	88.5	88.4	89.2

■ FISIM ■ Explicit Service Charge

Islamic Banks

■ Finance Rate Spread ▲ Notional Deposits Rate ● Notional Lending Rate ▬ Reference Rate

	2015	2016	2017	2018
Notional Lending Rate	4.92	4.89	4.79	4.70
Reference Rate	3.79	3.76	3.63	3.67
Notional Deposits Rate	2.66	2.63	2.47	2.63
Finance Rate Spread	1.13	1.13	1.16	1.03

Commercial Banks: Share of Output

	2015	2016	2017	2018
Explicit Service Charge	3.8	3.8	3.4	4.1
FISIM	96.2	96.2	96.6	95.9

■ FISIM ■ Explicit Service Charge

Commercial Banks

■ Finance Rate Spread ▲ Notional Deposits Rate ● Notional Lending Rate ▬ Reference Rate

	2015	2016	2017	2018
Notional Lending Rate	5.05	4.97	4.94	5.09
Reference Rate	3.78	3.75	3.69	3.83
Notional Deposits Rate	2.52	2.53	2.44	2.57
Finance Rate Spread	1.26	1.22	1.25	1.26

- Paired sample t-Test on reference rate in Islamic banking

- Ho : Mean for both Monetary rates and SNA rates no difference.

Monetary rates (Islamic Banks):

Year	Base Finance Rate	Deposit rate	Reference rate (rr)	Finance spread
	rL	rD	(rL+rD)/2	rL-rr@rr-rD
2010	6.07	0.94	3.50	2.57
2011	6.52	1.02	3.77	2.75
2012	6.62	0.96	3.79	2.83
2013	6.62	0.89	3.75	2.87
2014	6.75	0.90	3.82	2.92
2015	6.87	0.78	3.83	3.05
2016	6.78	0.66	3.72	3.06
2017	6.75	0.66	3.71	3.05
2018	7.03	0.78	3.90	3.12

Source: Bank Negara Malaysia

SNA rates (Islamic Banks):

Year	Reference rate (SNA)	Finance spread (SNA)
2010	3.68	1.94
2011	3.56	1.70
2012	3.70	1.64
2013	3.56	1.43
2014	3.52	1.35
2015	3.79	1.13
2016	3.76	1.13
2017	3.63	1.16
2018	3.67	1.03

Source: Calculated based on SNA framework

t-Test: Paired Two Sample for Means

	Reference rate	Reference rate (SNA)
Mean	3.7554	3.6535
Variance	0.0125	0.0085
Observations	9	9
Pearson Correlation	-0.0730	
Hypothesized Mean	0	
df	8	
t Stat	2.034	
P(T<=t) one-tail	0.038	
t Critical one-tail	1.860	
P(T<=t) two-tail	0.076	
t Critical two-tail	2.306	

- p-value greater than 5%,

- Result: there was no different of mean between monetary rates and SNA rates in Islamic banking

- Paired sample t-Test on finance spread in Islamic banking

- Ho : Mean for both Monetary finance spread and SNA Finance spread no difference.

Monetary rates (Islamic Banks):

Year	Base Finance Rate	Deposit rate	Reference rate (rr)	Finance spread
	rL	rD	(rL+rD)/2	rL-rr@rr-rD
2010	6.07	0.94	3.50	2.57
2011	6.52	1.02	3.77	2.75
2012	6.62	0.96	3.79	2.83
2013	6.62	0.89	3.75	2.87
2014	6.75	0.90	3.82	2.92
2015	6.87	0.78	3.83	3.05
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2015	3.79	1.13
2016	3.76	1.13
2017	3.63	1.16
2018	3.67	1.03

Source: Calculated based on SNA framework

t-Test: Paired Two Sample for Means

	Finance spread	Finance spread (SNA)
Mean	2.9125	1.3910
Variance	0.0321	0.0978
Observations	9	9
Pearson Correlation	-0.9881	
Hypothesized Mean D	0	
df	8	
t Stat	9.3024	
P(T<=t) one-tail	0.0000	
t Critical one-tail	1.8595	
P(T<=t) two-tail	0.0000	
t Critical two-tail	2.3060	

- p-value less than 5%,

- Result: there was different of mean between monetary spread and SNA spread in Islamic banking.

- The difference was due to the factors of level in stocks of finance/deposits and finance income/expense in SNA calculation.

- While estimation of VA of Islamic Banking by industry is very clear, estimation and contribution by Islamic Finance product is a challenge due to complexity of data and ability to split between the conventional and Islamic product.

- Islamic Capital Market: Single enterprise offering both Islamic and conventional products.

- Nurturing talents and experts in Islamic Finance e.g INCEIF

- Continuously well regulated financial sector (Central Bank, Securities Commissions, Bursa Malaysia)

- manage to calculate Islamic finance by using conventional formula backed by Islamic concept govern by the shariah advisory and committee

- DOSM continuously evaluating the methodology used in compiling the value added of Islamic banking as well as Takaful and Islamic Capital Market.

- the present method applied has served adequate and acceptable way of estimating its contribution to the economy

- encourage the setup of Islamic finance framework.

- a universal guidelines is needed to ensure the estimation Islamic banking and finance in the national accounts is comparable among countries

TERIMA KASIH & THANK YOU

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