THE DETERMINANTS OF SUKUK ISSUANCE: EVIDENCE FROM TOP SUKUK ISSUING COUNTRIES

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ABSTRACT

Macroeconomic variables may influence the issuance of Sukuk. The purpose of this study was to determine the relationship between macroeconomic variables namely Gross Domestic Product (GDP) per capita, inflation, rules of law, corruption of control and political stability. This study used a panel data study consisting of 11 countries that were mostly involved in the issuance of Sukuk. The countries are Bahrain, Brunei Darussalam, Indonesia, Kuwait, Malaysia, Pakistan, Qatar, Saudi Arabia, Singapore, Turkey and United Arab Emirates. The data was generated from 2006 until 2015 and collected from the authorized sources such as the Islamic Finance Information Services (IFIS), World Development Indicator and World Economic Outlook. This research employed several statistical methods like descriptive statistics, unit root test, and correlation analysis. In order to meet the objective of this research, an econometrics estimation of Pool Ordinary least square model, Fixed Effect Model and Random Effect Model were tested. The output from the Fixed Effect Model indicates that only GDP and control of corruption have a significant relationship to Sukuk issuance. It can be concluded that when the GDP increases, the number of Sukuk issued will increase accordingly. This is also applicable to corruption where better control of corruption will lead to an increase in Sukuk issuance. Therefore, good policies should in place to ensure a conducive economic environment that will encourage participation in the Sukuk market.

Keywords: Sukuk, Islamic capital market, macroeconomic, panel data, least square model

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INTRODUCTION

Sukuk comes from the root word *sakk* which means a certificate. In the industry, Sukuk is the alternative for the conventional bond. Sukuk is also known as 'Islamic Investment Certificates'. The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) defines Sukuk as "the certificates of equal value representing undivided shares in ownership of tangible assets, usufruct and services, assets of particular projects or special investment activity".

In 2015, global Sukuk issuance slowed down and showed a big drop of 43% compared to 2014. Only USD60.6 billion of sukuk was issued and this was stated by the International Islamic Financial Market (IIFM) Sukuk Report, 2016. This was attributed to the stopping of the issuance of short-term investment in Sukuk by Bank Negara Malaysia.
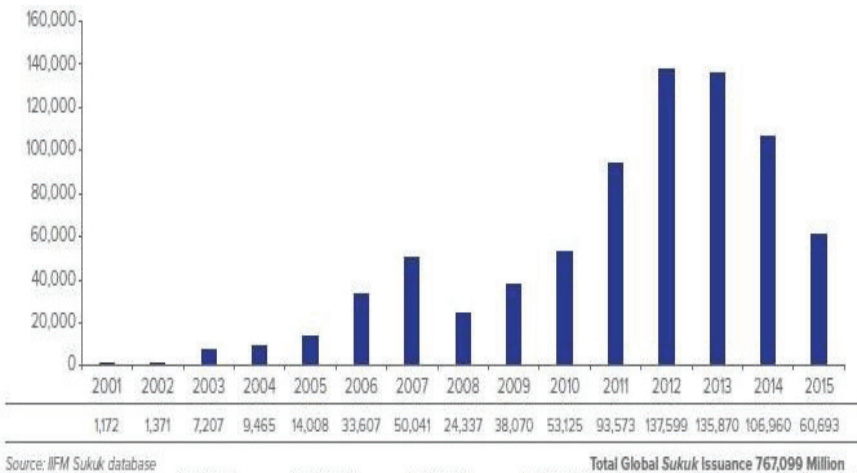

Figure 1: Total Global Sukuk Issuance (Jan 2001 – Dec 2015) – All Tenors, All Currency in USD Millions
Source: Islamic Financial Market (IIFM) Sukuk Report 2016

According to Figure 1, Sukuk had grown tremendously since 1998. In 2012 and 2013, the highest growth was recorded for global Sukuk issuance. However, global Sukuk issuance started to decline in 2014. Unfortunately, there was a massive fall of the total global Sukuk issuance in 2015. This motivated this study, to look at the main reasons behind the decline of Sukuk issuance.

Figure 2 below shows that Malaysia had issued the highest number of Sukuk in the global market with a total of 57% of global Sukuk issuance as of 31 December 2015. It was followed by Saudi Arabia 17%, UAE 10%, Indonesia 6% and Qatar 4%. Therefore, the Asian region is responsible for the largest Sukuk issuance with Malaysia contributing more than half of the total global Sukuk issuance.
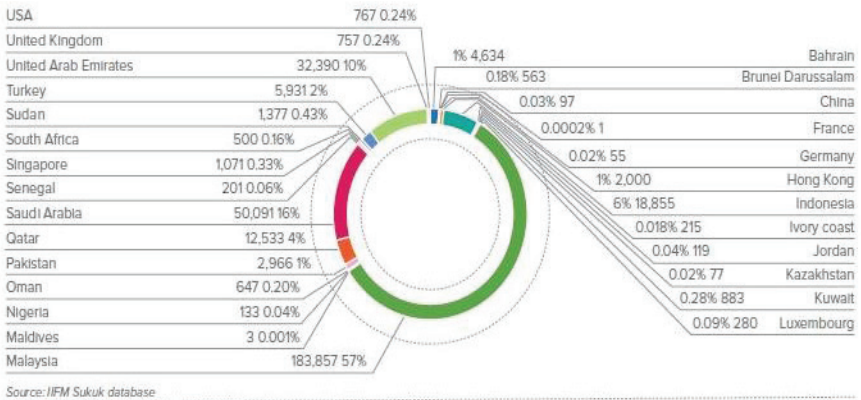
USA	767 0.24%		
United Kingdom	757 0.24%	1% 4,634	Bahrain
United Arab Emirates	32,390 10%	0.18% 563	Brunei Darussalam
Turkey	5,931 2%	0.03% 97	China
Sudan	1,377 0.43%	0.0002% 1	France
South Africa	500 0.16%	0.02% 55	Germany
Singapore	1,071 0.33%	1% 2,000	Hong Kong
Senegal	201 0.06%	6% 18,855	Indonesia
Saudi Arabia	50,091 16%	0.018% 215	Ivory coast
Qatar	12,533 4%	0.04% 119	Jordan
Pakistan	2,966 1%	0.02% 77	Kazakhstan
Oman	647 0.20%	0.28% 883	Kuwait
Nigeria	133 0.04%	0.09% 280	Luxembourg
Maldives	3 0.001%		
Malaysia	183,857 57%		

Source: IIFM Sukuk database

Figure 2: Breakdown of Sukuk Outstanding as of 31 December 2015
Source: Islamic Financial Market (IIFM) Sukuk Report 2016

Although Sukuk plays an important role to finance economic development, the number of Sukuk issued fluctuates in some countries based on macroeconomic factors. For instance, Sukuk issuance in a country with poor political stability is not as high as the number of Sukuk issued in country that has a more stable political condition. Countries like Kuwait which practice the Islamic financial system fully do not issue Sukuk as consistently as other countries like Malaysia and Bahrain (Islamic Finance Information Services, 2015). In addition, Sukuk issuance globally started to decline since 2014 as mentioned in the earlier section. This might be due to many factors and macroeconomic factors may be one of them.

It should also be noted that there are less studies on the drivers of Sukuk issuance. Many of the previous studies focused on conventional bonds. This is because the bonds were in the market earlier compared to Sukuk. There are multi-dimensional determinants that can influence Sukuk issuance. Said and Grassa (2013) have done a study on the determinants that may influence the Sukuk structure in Bahrain, Brunei Darussalam,

Indonesia, Kuwait, Malaysia, Pakistan, Qatar, Saudi Arabia, Singapore, Turkey and United Arab Emirates. They studied many determinants that may have influenced the development of Sukuk performance such as (i) economic and macroeconomic factors, (ii) the global financial crisis, (iii) the financial system, (iv) the institutional environment, (v) the legal factors and (vi) the religious and social factors. It can be concluded that the macroeconomic, legal and religion factors have shown a significant effect on the performance of Sukuk.

As such, this study implemented some of the variables listed by Said and Grassa (2013). In particular, this study focussed on the macroeconomic variables such as Gross Domestic Product (GDP) per capita, inflation, rule of law, corruption of control and political stability. Previous studies have proven that GDP has a relationship with certain capital market instruments. Based on Presbitero et al. (2016), the country which has the highest GDP per capita level issues more sovereign bonds. Elkarim (2012) discovered that inflation has a critically positive effect on conventional bond performance. Therefore, inflation would also be one of the factors that influence Sukuk issuance.

The paper is organized as follows. Section II briefly summarizes the theory capital structure. Section III discusses the data and empirical methods used in this study, Section IV presents the empirical results of the analysis, and Section V concludes the paper.

LITERATURE REVIEW

The initial performance of Sukuk especially during 2011 to 2013 convinced all the players of capital markets globally of the potential of Sukuk which showed a promising performance. However, the unfavourable global economic conditions in 2014 and 2015 had a negative on the global financial system as well as the performance of the capital market. Factors such as GDP, inflation rate, rule of law, corruption, and political stability were touted as the causes of fluctuations of Sukuk issuance globally.

Based on previous research by Nagano (2015), Saad et al. (2016), the study utilised external economic factors such GDP per capita, population

and regulation. The empirical evidence showed that the external economic factors have a significant relationship with the issuance of Sukuk. Presbitero et al. (2016), showed that countries which have higher real GDP per capita levels, are more advanced in issuing sovereign bonds compared to developing nations.

Elkarim (2012) discovered that inflation has a critically positive effect on conventional bond performance. The paper discovered that there is a negative relationship between conventional bonds and inflation. In addition, Ahmad et al. (2012) also found that inflation has a significant inverse relationship on Sukuk performance. The logic behind this is based on the fact that a higher inflation rate will lead to a lesser number of Sukuk issued by financial institutions due to a decrease in the demand for Sukuk. However, the results from Said and Grassa (2013) shows that the performance of the Sukuk market is not influenced greatly by inflation.

Rule of law refers to the confidence of the people towards the rules in a particular society. Haggard and Tiede (2010) explain that rule of law has a connection with economic growth through the provision of individual security, property security, contract enforcement and prevention of corruption and private capture. Rule of law plays an important role in strengthening capital market activities especially in the Sukuk market. It will promote trust and confidence to the Sukuk issuer and investors in the Sukuk market. This is supported by the Said and Grassa (2013) when they used the Rule of Law factor to determine the development of the Sukuk and found that rule of law has a positive significant relationship with the development of the Sukuk market.

Corruption refers to person's unethical behaviour to acquire personal benefits. According to Zaman and Ur-Rahim (2009), corruption can be measured by the size or volume of the bribes. Corruption should be controlled as a high level of corruption may affect the development of the Sukuk market (Said & Grassa, 2013). Adelegan and Radzewicz-Bak (2009) found that there is a negative relationship between corruption control and the bond market. However, Said and Grassa (2013) found the opposite to be true in which the control of corruption has a positive significant relationship on the development of Sukuk market.

Political stability has influenced economic growth and fortunes (Hasan, 2010). Technically, a country that has political stability can promote more investment activities such as Sukuk. Based on Sheikh (2015), capital markets in Pakistan are not well developed due to political instability and policy inconstancy. Many investors do not have confidence in long-term investments in Pakistan. This scenario shows that the bond market is under developed in Pakistan as the Sukuk market is not as big as that in other Islamic countries.

EMPIRICAL METHODOLOGY AND MEASUREMENT OF THE VARIABLES

Sample and Data

The samples for this study were Sukuk issued from the Sukuk issuing countries namely: Bahrain, Brunei Darussalam, Indonesia, Kuwait, Malaysia, Pakistan, Qatar, Saudi Arabia, Singapore, Turkey and United Arab Emirates. The period of the sample selected was from 2006 to 2015. This is because, global Sukuk issuance started to decline in 2014, before a massive fall of the total global Sukuk issuance happened in 2015. This motivated the study to look at the main reasons behind the deterioration of Sukuk issuance.

Empirical Model – Ordinary Least Square (OLS) and Generalise Least Square (GLS)

The purpose of this regression is to determine the relationship between macroeconomic variables and Sukuk issuance. By pooling data cross-sectionally, it was deduced that the factors in the model are the same for every country and are stable over a period of time. Firstly, the ordinary least square (OLS) technique was conducted to estimate the developed model before using the generalise least square (GLS) method. The OLS used a technique of minimizing the sum of residual squares where every residual is equally important (unweighted) no matter how close to or how widely the individual observations is from the sample regression function. The most preferable estimation is to allocate more weight to the observations that are narrowly around their mean.

The OLS method was unable to reflect on the inconsistency in Sukuk issuance, GDP, inflation, rule of law, corruption of control and political stability. Therefore, a better estimation model was implemented where extra weight was given and is not dependant on the result from the sample that gives a smaller variability. Based on econometric concerns the data of the GDP was transformed into logarithm value to reduce its fluctuation in real value.

The model for the Panel OLS Model examination is:

$$SI_{it} = \beta_0 + \beta_1\,LGDP_{it} + \beta_2\,INF_{it} + \beta_3\,ROL_{it} + \beta_4\,COC_{it} + \beta_5\,POS_{it} + \varepsilon_{it}$$

Where,

SI	=	Sukuk Issuance
LGDP	=	Logarithm of GDP
INF	=	Inflation Rate
ROL	=	Rule of Law
COC	=	Corruption of control
POS	=	Political Stability
β_0	=	Interception
ε	=	Error Term

The main assumption of the null hypothesis in the F-test is that the effect is redundant. By rejecting the null hypothesis, the GLS model is preferable to the panel OLS model.

Based on the GLS the weight is allocated to respective studies where it is relative to its σ. The observation derived from a sample of the population with higher σ will get a more relative weight in minimizing the residual sum of squares. The better estimation is to assign a higher amount of weight to the observations that are closely clustered to their mean than that those that are widely spread. The GLS method consists of the Fixed Effect and the Random Effect model. The Fixed Effect Model undertakes that the slope coefficient is constant for all cross-sectional units, and the intercept varies over individual cross-section units but does not differ over time. Akbar et al. (2011) mentioned that the estimation of a Fixed Effect Model is more practicable even in a panel with a large number of groups.

For this study the fixed effect model can be written as follows:

$$SI_{it} = \beta_0 + \beta_1\ LGDP + \beta_2\ INF + \beta_3\ ROL + \beta_4\ COC + \beta_5\ POS + \mu_{it}$$

Where i is the ith cross-section unit and t is the time of observation. The fixed effect is estimated by the method of least square dummy variable (LSDV).

DATA ANALYSIS AND DISCUSSION

Table 1: Descriptive Analysis

	SI	LGDP	INF	ROL	COC	POS
Mean	3324.939	9.715384	4.545427	0.3605	0.3801	-0.0697
Median	1070.078	9.972382	3.328000	0.4450	0.2450	0.0800
Maximum	45211.70	11.22106	19.56100	1.8900	2.2500	1.3600
Minimum	0.001600	6.925061	-4.876000	-0.9800	-1.0700	-2.8100
Std. Dev.	6197.951	1.221612	4.030229	0.6706	0.8512	1.1326
Skewness	4.150168	-0.978966	0.974395	0.0204	0.5035	-0.6939
Kurtosis	24.16972	2.993660	4.172791	3.0900	2.7803	2.7398
Jarque-Bera	2369.824***	17.57038***	23.71062***	0.0448	4.8683*	9.1378**
Sum	365743.2	1068.692	499.9970	39.6500	41.8100	-7.6700
Sum Sq. Dev.	4.19E+09	162.6646	1770.459	49.0137	78.9817	139.8157
Observations	110	110	110	110	110	110

The Table above shows the descriptive statistics of the variable, where SI stands for Sukuk issuance, LGDP for Logarithm of GDP, INF for inflation, ROL for rule of law, COC for control of corruption, and POS for political stability. The SI ranged from 0.0016 to 45211.70 with an average of 3324.939. The LGDP ranged from 6.9251 to 11.2211 had an average of 9.7154. The INF ranged from -4.8760 to 19.5610 with an average of 4.5454. The ROL ranged from -0.9800 to 1.8900 with an average of 0.3605.

The COC ranged from -1.0700 to 2.2500 with an average of 0.3801. The POS ranged from -2.8100 to 1.3600 with an average of -0.0697. Total observations were 110 for all variables from 2006 to 2015.

The standard deviation measures how spread out around the mean the points of a distribution are. The results of a standard deviation showed the values were from 0.6706 to 4.0302. The Skewness showed that all independent variables had 0 value which means that the distribution of the data is symmetrical around the mean. The Kurtosis showed that LGDP, COC and POS have a Figure of 2 which means that the probability for extreme values is less than for a normal distribution, and the values were wider spread around the mean. Kurtosis of INF was 4 which means the data has a high probability of extreme values. Kurtosis of ROL was equal to 3 which means that the data has a normal distribution.

Table 2: Empirical Result

Variable	Coefficients	p-value
Constant	-127873.9	0.010***
LGDP	13504.16	0.009***
Inflation	-116.04	0.414
Rule of Law	-5868.38	0.191
Corruption Control	6428.14	0.029**
Political Stability	-2869.91	0.193
R^2	0.6169	
Adjusted R^2	0.5557	

Based on Table 2 above, GDP and corruption control showed a positive significant relationship to Sukuk issuance at a significance level of 1% and 5% respectively. The findings of the relationship between GDP and Sukuk issuance are supported by Yong et al. (2015), Bhattacharyay (2011) Said and Grassa (2013) and Ahmad and Radzi (2011). This result shows that when GDP per capita increases, Sukuk issuance will also increase. The result for control of corruption was in line with Syed (2013) which is that control of corruption has a positive significant relationship with Sukuk issuance where the more effective the control of corruption, the higher the issuance of Sukuk.

However, the result on inflation, rule of law and political stability were insignificant to Sukuk issuance. This means that any change in inflation rate, rule of law and the country's political scenario does not influence the decision on issuing Sukuk. These results contradict previous literature by Yong et. al (2015), Chao (2016) and Said and Grassa (2013) where inflation, rule of law and political stability influence the number of Sukuk issued.

The R-Squared shown by the GLS fixed effect model was 0.6169. This indicates that 61% of the independent variables explained the dependent variable. The remaining 39% cannot be explained.

CONCLUSION

In this study, the generalized least square (OLS) method was used to analyse the panel data. The objective was to find the relationship between selected macroeconomic variables which were GDP, inflation, rule of law, corruption of control and political stability with Sukuk issuance. The findings of this research show that GDP and corruption have a positive significant relationship with Sukuk issuance while the remaining variables namely inflation, rule of law and political stability have an insignificant relationship on Sukuk issuance.

The results indicate that the change in GDP per capita will positively affect Sukuk issuance. When the GDP per capita increases, Sukuk issuance will also increase. GDP per capita is the total income of a population in a country. When the GDP per capita of a country is high, it shows that the economy of that country is doing well. Logically, when the country is strong economically, there will be tremendous development. Therefore, the need of debt instruments such as Sukuk will be on the rise as it helps to sustain the development of a country. Based on Presbitero et al. (2016), when a country has high GPD per capita, the number of sovereign bonds issued is large.

Investors also want to participate in investments that are offered in a country that has strong economic growth because it will ensure returns to the investors. High GDP per capita value shows that the economy is performing well. Thus, investors tend to demand investments in capital like Sukuk. This is because the GDP value helps to convince the investor as well as the issuer.

On the other hand, the inflation rate is represented by the consumer price index which was found to have an insignificant relationship with Sukuk issuance. The changes in the inflation rate did not have an impact on the number of Sukuk issued. Therefore, no matter what the rate of inflation is, the decision to issue Sukuk is not influenced by it.

However, the results of this study contradict those of previous studies (Said & Grassa, 2013, Elkarim, 2012, Ahmad et al., 2012) where inflation was significantly related to Sukuk issuance. This is because, there were missing data for the dependent variables where not all selected countries issued the Sukuk in the selected period for this study. This matter led to an imbalance in data where it could affect the distribution of the independent variables.

Rule of law was found to have no relationship with Sukuk issuance. This is because Sukuk will still be issued when a country has a poor legal environment. A country that has a moderate or relatively poor legal environment compared to other countries might have a lower number of Sukuk issued. Nevertheless, Sukuk issuance will still take place, albeit at a slower pace.

Furthermore, Sukuk is still being issued in a country that is not governed by *Shari'ah* law. This is because Sukuk is an essential debt instrument that is an alternative to the conventional bond. Nowadays, more and more companies have faith in Sukuk. Hence, non-Islamic countries have a growing Sukuk market like Hong Kong, United Kingdom and other European countries.

Control of corruption indicated a positive significant relationship with Sukuk issuance. This shows that the better the control of corruption the higher the issuance of Sukuk. Companies will issue more Sukuk when the level of corruption is low. This is because, they have more confidence to issue Sukuk because the control of corruption makes the environment more secure and helps in monitoring of the Sukuk until it matures.

Besides that, corruption is a practice that is prohibited in Islam. Since Sukuk is an Islamic product, the absence of corruption is very important for the Sukuk market. Sukuk is an essential debt instrument that will consider

the level of corruption. The issuer of Sukuk will try to avoid issuing Sukuk when the level of corruption is high.

Political stability did not have a relationship with Sukuk issuance. This is because, even though a country is facing instability due to the political situation, the development of a country is still a priority. Therefore, the need for fund is still relevant to finance the growth of a country.

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