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Sukuk, banking system, and financial markets: Rivals or complements?

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HIGHLIGHTS

- We study the relationship between financial development and Sukuk issuance.
- The banking system competes with Sukuk issuance.
- The bond market complements Sukuk issuance.
- The financial crisis has been a catalyst to Sukuk issuance.

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ABSTRACT

Using the system GMM estimation technique, we study the effects of the financial development on Sukuk markets using a panel dataset of 11 countries from 1995 to 2015. First, we find that Sukuk and bank financing are substitutes. Economies where banks play a key role in providing private credit issue less Sukuk. Second, the evidence shows that Sukuk are complements to bonds and stocks. More Sukuk are issued in market-oriented economies. Finally, we show that the 2008 global financial crisis has a positive effect on Sukuk markets development.

1. Introduction

Sukuk securities are the Islamic counterparts of conventional bonds with two main differences. First, they are compliant with Islamic laws (Sharia) by paying profit instead of interest. Second, they usually involve ownership in a real asset. The risk sharing aspect and the extensive contracting structure of Sukuk exert tight monitoring on the lending–borrowing channel. The use of Sukuk securities ensures therefore that financing is granted to credit-worthy borrowers and mitigates agency problems (Halim et al., 2016; Ebrahim et al., 2016). Minhat and Dzolkarnaini (2017) document that the wide use of Islamic financing is more beneficial to less profitable firms due to agency costs and adverse selection problems amongst Islamic finance providers. Conventional bonds, on the other hand, are either pure debt contracts or represent financial claims on opaque projects where the underlying asset may have no real economic value. Accordingly, many structured credit instruments are "paper chasing" vehicles with extremely high liquidity, which may overheat financial markets during crises (Kayed and Hassan, 2011).

This striking disparity between Islamic and conventional financial tools contributed to the relatively positive performance of Islamic finance during and after the 2008 global financial crisis (Hasan and Dridi, 2010). In particular, Sukuk markets have experienced tremendous growth averaging 27% per year in the last two decades (Alzahrani and Megginson, 2017). By 2016, the outstanding corporate and sovereign Sukuk have reached \$318.5 billion.[1]

While the 2008 crisis may have played a key role in this expansion, the development of the domestic financial systems is

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1 Islamic Financial Services Industry Stability Report, 2017.

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Table 1
Variables description.

Definition	Measure	Expected sign
Dependent variable: Sukuk market development	Annual Sukuk market capitalization to GDP	N/A
Economic size	GDP at purchasing power parity	+
Trade openness	Ratio of exports and imports to GDP	+
Mixed Common Law/Sharia Law	Dummy equal to 1 if the country adopted a mixed Law from the British common law and Sharia Law and 0 otherwise	+
Size of the banking system	Credit to the private sector by commercial banks to GDP	–
Banking concentration	The percentage of bank assets held by the three largest commercial banks in the country	+
Bond market development	Bond market capitalization to GDP	+
Stock market development	Stock market capitalization to GDP	+
Crisis dummy	Equal to 1 starting in 2008 and 0 otherwise	+

of pivotal importance. Moreover, whether the credit market is bank-oriented or market-oriented should have a bearing on Sukuk. To uncover how these factors affected Sukuk markets, this paper addresses two main questions: (i) How does the banking sector affect the market for Sukuk? (ii) How do bond markets and stock markets affect the development of Sukuk?

To our knowledge, this paper is the first to comprehensively study the effects of a country's financial development on Sukuk issuance, including the impact of the banking system, the bond market, and the stock market. Smaoui and Khawaja (2017) is the only study to bring focus to the determinants of Sukuk market development using a panel data framework. They failed however to investigate the effect of the banking system and the stock market development on Sukuk markets. We contribute to the nascent literature on Sukuk by testing the following hypotheses:

H1. Sukuk and bank financing are substitutes.

While the presence of a well-developed banking system may be complementary to the development of a liquid and deep Sukuk market since banks can serve as dealers and market makers therein, a more sophisticated banking system will most likely deprive Sukuk of market share. As banks play a significant role in the economies of our sample countries, we expect bank financing to crowd-out Sukuk

H2. Sukuk are complements to bond and stock markets.

Although conventional bonds may compete with Sukuk and hamper their development, the bond market can provide the required infrastructure for Sukuk issuance and trading. In addition, the disintermediation generated by bond markets should accelerate the development of Sukuk markets. Accordingly, we expect bond markets to complement Sukuk.

Furthermore, well-functioning stock markets reduce asymmetric information and enhance corporate governance lowering the cost of external equity and the cost of issuing debt (Demirgüç-Kunt and Maksimovic, 1996). Additionally, the know-how of trading market securities should foster the issuance of Sukuk. Thus, we conjecture that the development of bond and stock markets is conducive for the growth of Sukuk markets.

2. Sample and methodology

2.1. The sample

We examine the impact of financial development on Sukuk using a panel dataset of 11 countries[2] from 1995 to 2015. To ensure a time-series dimension to our data, countries with less than three annual Sukuk observations have been dropped. A description of the variables and their expected signs is provided in Table 1.

[2] Bahrain; Brunei; Gambia; Indonesia; Malaysia; Pakistan; Qatar; Saudi Arabia; Singapore; Turkey; and Yemen.

2.2. Methodology

To estimate our dynamic panel model, we use the system GMM estimator of Blundell and Bond (1998) which combines, within a system, the regression in first differences and the regression in levels. It is worth noting that the system GMM estimator is biased downward in small samples (Blundell and Bond, 1998). To alleviate this problem, we use the procedure of Calderon et al. (2000) that decreases the size of the instruments' matrix. Moreover, we employ the Windmeijer's (2005) small-sample correction of the estimated variance.

3. Empirical results

Table 2 displays the descriptive statistics for our main variables. Table 3 shows that the coefficient of the size of the banking system is negative and significant at the 5% level, whatever the specification. Accordingly, the larger the role of banks in the economy, the lower the issuance of Sukuk. Hence, the banking sector and Sukuk market appear to be substitutes in accordance with hypothesis H1. This result is supported by the configuration of our sample as Sukuk are mainly issued in the GCC countries and Malaysia where banks play a central role.

Column 2 of Table 3 controls for the effect of the 2008 global financial crisis. When the crisis dummy is added to Column 1 regression, the coefficient of the crisis variable is positive and significant at the 1% level. This result confirms that Islamic finance instruments gained more popularity after the 2008 crisis due, in part, to their close control and better selection of borrowers.

In column 3, we investigate the impact of the structure of the banking sector, measured by the bank concentration, in addition to the size of the banking sector. The latter variable maintains its negative sign and significant impact. Interestingly, the concentration variable has also a negative and significant impact on Sukuk market development, suggesting that economies with more concentrated banking issue less Sukuk. In oligopolistic banking structures, banks have an incentive to maintain long-term close relationships with their clients by offering attractive financial products and services. Such close relationships mitigate agency costs between lenders and borrowers and limit the need for alternative external financing including Sukuk.

When the crisis dummy is added in column 4, the effect of the concentration variable becomes non-significant while that of the banking sector remains negative and significant. It follows that the size of the banking sector is more important than its concentration structure in the development of Sukuk markets.

Columns 5 & 6 of Table 3 investigate the impact of the bond market development and the stock market development on the issuance of Sukuk. The coefficients on both variables are positive and highly significant at the 1% level, supporting hypothesis H2. This result is of paramount importance suggesting that while Sukuk are rivals to the banking sector, they are complements to the bond and stock markets.