Research in International Business and Finance 38 (2016) 246–261

Contents lists available at ScienceDirect

Research in International Business and Finance

journal homepage: www.elsevier.com/locate/ribaf

Full length article

Dynamic transmissions between Sukuk and bond markets

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ARTICLE INFO

Article history:
Received 3 November 2015
Received in revised form 26 April 2016
Accepted 29 April 2016
Available online 30 April 2016

JEL classification:
C1 F3 G1

Keywords:
Islamic finance
Sukuk
Diversification
Volatility spillovers
Variance decomposition

ABSTRACT

In this article we contribute to the recent debate on the difference between Islamic bonds (Sukuk) and conventional bonds by investigating returns and volatility spillovers of Sukuk and global bonds with equities. The dynamic spillover index methodology proposed by Diebold and Yilmaz (2012) indicates different transmission mechanisms of Sukuk compared to bonds. The main distinctive features of the Sukuk market are the higher transmission of information from equities, and the weaker transmission of information from the Sukuk market to other markets. Thus, this paper highlights the importance of Sukuk in the strategic asset allocation and hedging of international investors.

1. Introduction

The recent years have witnessed growth and interest in the Sukuk market. In terms of overall volumes, the market grew from less than $14.8 billion in 2001 to more than $472.68 billion by the end of 2013. This year alone, there has been more than $118.8 billion of Sukuk sales.[1] Moreover, the market has started to attract non-Muslim issuers in Europe, Asia and Africa.[2] For instance, the UK government have structured and sold £200 million of Sukuk last June. It was followed by the governments of Hong Kong, South Africa and Luxembourg.[3]

The debate on Sukuk is mainly concerned about their similarities and differences to conventional bonds. The major distinguishing features of Sukuk compared to bonds is the prohibition of a fixed interest payment, the exclusion of transactions involving extreme uncertainty or a deliberate lack of transparency (*gharar*), the exclusion of gambling (*maysir*), short selling, arbitrage and excessive speculation (Aloui et al., 2015a,b; Bouslama and Lahrichi, 2016). Moreover, the return on Sukuk should depend upon the return of the underlying investments that have to be compliant with Islamic rules. Hence, Sukuk should not be driven by interest rate changes in the same way as conventional bonds. Unlike bonds which constitute a

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[1] See Global Sukuk report (2015). Published by Malaysia's Islamic Finance Marketplace. Accessed at http://www.mifc.com/index.php?ch=28&pg=72&ac=124&bb=uploadpdf.

[2] Sukuk are currently traded in more than 12 securities markets across the world. In many other markets they are traded as private issues.

[3] Note that the demand for Sukuk is strong and that these issues were oversubscribed and sold by these governments without breaking a sweat. See Financial Times Special Report, for more details information about Sukuk market. Accessed at www.ft.com/reports@ftreports.

http://dx.doi.org/10.1016/j.ribaf.2016.04.016
0275-5319/

nominal debt that the issuer has to re-pay at maturity, Sukuk represents a share in the project and its value at maturity has to reflect the current market value of the underlying investment.[4]

However, to make them familiar and their returns and risks easier to assess by investors, issuers structure Sukuk in a similar way to bonds in terms of features such as rating, issuance, redemption procedures, coupon payments and default clauses. Therefore, many studies claim that Sukuk are not innovative financial products, and that they are simply another version of bonds in terms of their lack of ownership, right to fixed return and guaranteeing repayment of the principal by the issuer (Miller et al., 2007; Wilson, 2008).

To distinguish Sukuk from conventional bonds Cakir and Raei (2007) investigated Sukuk price behavior and they found a genuine difference in their association with other bonds. In particular, they assessed the impact of Sukuk issued on the cost and risk structure of investment portfolios by using the Value-at-Risk (VaR) framework. Their results indicated that Sukuk returns are weakly correlated with other bond returns, and that their inclusion in a bond portfolio reduces its risk beyond the reduction that is implied by adding another issuer different maturity bond. They also found that Sukuk are diversifying in a bond portfolio despite it being similarly structured.[5] Similarly, and to expose their difference to bonds, Godlewski et al. (2013) compared stock market reaction to bond issuance with its reaction to the issuance of Sukuk. They applied an event study methodology over a sample of Malaysian listed issuers and they found that stock prices react differently. In particular, a bond sale announcement was considered as no news by equity investors with no influence on stock prices. However, Sukuk issuance was regarded as bad news and they triggered price declines. Sukuk sales were also found to be negatively correlated with market returns. They attributed this result to the excess demand for Sukuk and to an adverse selection mechanism that favors Sukuk issuance by lower quality debtor companies.[6]

A group of recent studies have investigated the association between Islamic equities and Sukuk. For instance, Aloui et al. (2015a,b) studied the co-movement between Islamic stocks and Sukuk using the time frequency domain analysis and they find a strong dependence particularly in the longer term. In a related research, Kim (2013) have also analyzed the transmission mechanism of volatility between Islamic stocks and Sukuk in Malaysia using a VAR-bivariate GARCH model. Their results indicate a unidirectional volatility spillover from the stock market to the Sukuk market.

In this paper we contribute to the current debate over whether Sukuk are financing products that own distinctive features to bonds by comparing returns and volatility information transmissions of the Sukuk market with those of the bond market. The empirical study of return (volatility) spillovers is interesting from the particular perspective of portfolio diversification and hedging strategies. In particular, knowledge of directional spillovers may help in portfolio management, in strategic asset allocation and market selection. Furthermore, accounting for directional volatility may improve risk prediction, which is crucial for stock valuation models, option pricing models, value at risk and optimal hedging. Thus, this paper highlights the importance of Sukuk in the strategic asset allocation and hedging of international investors.

The empirical literature on Sukuk is rare. In some of the previously mentioned studies, the samples were restrictive. They contained only some of the Sukuk issues and there was not a time series that is long enough to be analyzed. For instance, Cakir and Raei (2007) analyzed only selected issues of sovereign Sukuk for which secondary market data is available.[7] Similarly, the distinction between Sukuk and conventional bonds in Godlewski et al. (2013) was done on the basis of a sample of Malaysian listed companies over the period from 2002 to 2009. The rest of studies have focused on the spillover between Islamic bonds and equities in a specific region. For example, the study of Kim (2013) has considered Malaysian stock and bond indices. Similarly, the focus of Aloui et al. (2015a,b) was on GCC Sukuk and equities.[8] On the contrary, in this study we focus on the transmission mechanism in a system that includes global bonds, global equities, global Sukuk and global Islamic stocks. The Sukuk index used in this study represents all issues in the Sukuk market and across all countries. It contains a long enough series of daily observations that extends from September 2005 to February 2014. This has given us the chance to study the transmission mechanisms in the Sukuk market and to compare it to the bond market. Unlike previous studies, this research reveals the dynamics of the spillovers between Sukuk and equities across time. Therefore, this paper adds to the literature regarding the volatility transmissions between Sukuk and conventional bond markets. It also quantifies the consequences of cross-asset market linkages on the diversification benefits of international investors who are venturing into the global Sukuk market.

The information transmission of returns and volatilities are measured by using the Diebold and Yilmaz (2012) spillover indices that are based on normalizations of forecast error variance decompositions derived from a generalized vector autoregressive (GVAR) model. These indices are suitable as they can be used to study the information transmission to and from the Sukuk (bond) market and other markets.[9]

[4] Note that while shares have no maturity, Sukuk do. Moreover, they are issued on specific assets. The Sukuk value should be fully paid to the investors at maturity.

[5] To the contrary of Cakir and Raei (2007) pointed out that Sukuk issued in different markets suffer from high levels of long term correlations with bonds and that their diversification benefits are limited.

[6] On the other side, Alam et al. (2013) found similar stock market reaction. The stock market responded in the same way to either the issuance of bonds or Sukuk. However, their results were similar to Godlewski et al. (2013) in the pre-crisis period.

[7] Sukuk markets are in its infancy and most trading occurs in the primary market.

[8] GCC refers to the Gulf Co-operation Council Countries, namely; Saudi Arabia, Kuwait, Oman, The Unites Arab emirates and Qatar.

[9] For the application of this approach, refer to, for example Awartani et al. (2013) and Maghyereh et al. (2015).