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Global factors driving structural changes in the co-movement between sharia stocks and sukuk in the Gulf Cooperation Council countries

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ABSTRACT

In this paper, we investigate the volatility spillovers between sukuk and sharia-compliant stocks in GCC countries. A multivariate Fractionally Integrated Asymmetric Power ARCH model with dynamic conditional correlations (DCC) is estimated under Student-*t* distribution. We provide strong evidence of persistence behavior in sukuk and sharia stock volatilities and a time-varying negative correlation. Using the Bai and Perron (2003. *Journal of Applied Econometrics*, 18, 1) test, we uncover structural breakpoints in the DCCs path corresponding to extreme external events including the failure of Lehman Brother's on September 2008. Such extreme events have increased the magnitude of the dynamic correlations between sharia-stocks and sukuk. We estimate a modified DCC model with exogenous variables (DCCX), which allows for exogenous variables to impact the behavior of the DCC over time. We find significant behavioral shifts in the sukuk/sharia stock relationship, which can

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be explained by market liquidity, U.S. CDS spreads and crude oil prices. Our findings provide useful implications for Islamic fund managers operating in the GCC markets as well as for GCC policymakers.

1. Introduction

In Islamic financial markets, it is well known that sharia-compliant stocks and sukuk (Islamic bonds) are primary investment instruments for constructing optimal Islamic and non-Islamic investment portfolios. What is not understood, however, is the co-movement and dynamic correlations between these two Islamic assets particularly during major crisis, which is of strong interest to both academics and Islamic financial institutions. For portfolio managers, the sharia-compliant stock–sukuk price co-movement and correlation play a crucial role in cross-market hedging, asset allocations and risk diversification. Although the co-movement and correlation between conventional stocks and bonds are extensively researched in the empirical finance literature (Keim & Stambaugh, 1986; Campbell & Ammer, 1993; Kwan, 1996; Baur & Lucey, 2009; Connolly, Stivers, & Sun, 2005, and Tsai, 2014), there are no previous studies devoted to such issues in the Islamic capital market literature.

Sharia stocks and sukuk are financial instruments complying with the sharia codes. For sharia stocks, Islamic sharia permits investment in stocks given that those firms do not engage in 'Haram' or prohibited activities including lending, gambling or production of alcohol, tobacco, weaponry or pornography. Islamic scholars have made some concessions on some permissible activities, as most businesses use debt either to address liquidity shortages or to invest excess cash. One set of business activity screens excludes companies that hold interest-bearing debt; receive interest and other impure income or trade debts for more than their face values. Another refinement of the previously mentioned set of screens excludes firms whose debt/total asset ratio is equal to or exceeds 33%, companies with "impure plus non-operating interest income" revenue is equal to or greater than 5% or companies whose receivable/total assets accounts are equal to or exceed 45% or more.

Sukuk are Islamic bonds which provide an alternative mode of debt financing as compared to conventional banking. Sukuk are investment certificates that represent a proportional or undivided interest in an asset or pool of assets. The claim embodied in sukuk is not simply a claim to cash flow but an ownership claim. This differentiates sukuk from conventional bonds as the latter is interest-bearing securities[1], whereas sukuk are essentially investment certificates consisting of ownership claims in a pool of assets.

During the last decade, the Gulf Cooperation countries (GCC) region witnessed an impressive extension of issuance of sharia-compliant financial instruments that have been fuelled mainly by the growth in the sharia-compliant stock and sukuk markets. The fact that GCC economies have experienced economic and financial stability, this improvement has benefited the Islamic finance markets in those countries. It has driven the sharia institutions to take advantage of the growth opportunities to expand their financial products including sukuk and sharia compliant stocks. According to Standard & Poor's estimates, about 20% of the banking customers in the GCC region would spontaneously choose an Islamic financial product over a conventional one with a similar risk-return profile over the next three years.

During 2013, the size of an individual bond and sukuk issuance in the GCC region ranged between \$2.0 million to \$4.0 billion. Moreover, the bond and sukuk issuances with sizes exceeding \$1 billion represented the highest portion of the fifteen bond issuances that came to the market in 2013, totaling \$19.08 billion in that year. Concerning their maturity profile, the bonds with a tenure of five-years raised the highest amount, equalling \$13.3 billion issued through 30 issuances and representing 28.8%

[1] See Islamic Finance Recourses, for more details relative to the differences between sukuk and conventional bonds. Available on the link: (http://ifresource.com/2010/04/27/how-sukuk-works-introduction-structuring-and-application-of-sukuk-bonds/).