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Do global financial distress and uncertainties impact GCC and global sukuk return dynamics?

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ABSTRACT

We investigate the dynamics of the co-movement and causal relationship of the GCC sukuk (Islamic bond) returns with global financial distress and various uncertainty factors (including financial and commodity market and economic policy uncertainty indices), using the quantile regression analysis. The empirical results demonstrate that these global financial, economic policy and oil uncertainties have negative impacts and causality effects on the GCC sukuk returns, which is limited to the lower quantiles (bearish GCC markets). The global financial distress has a negative impact and a causality effect on GCC sukuk but only for the upper quantiles (when the sukuk returns are high). Interestingly, the GCC sukuk returns are not affected by the conventional bond market and gold market uncertainties. For comparison purpose, we examine the impacts of global financial distress and uncertainty factors on the global sukuk index, which is much wider than the GCC index, and find that this index is mainly affected by the global conventional bond market uncertainty. The results show also that the GCC sukuk are more sensitive to the global uncertainty factor, mainly in the tail distributions, than the global sukuk, offering investors different investment alternatives and portfolio diversification opportunities.

1. Introduction

Investigating and modeling dependence dynamics and co-movement across financial assets is of great importance to scholars and investors, particularly during bull and bear market periods. In fact, the change of dependence structure, particularly during tumultuous market periods, is one of the main concerns for portfolio managers and market participants. The recent global financial crisis, which was sparked by the 2007 U.S. subprime crisis, caused severe damages to global economic growth and financial markets and has renewed the interest in safe haven assets including Islamic finance assets. The Islamic bonds (called 'sukuk')[1] were created in recent years as an alternative to interest-bearing instruments like conventional bonds. The sukuk markets have registered an extraordinary growth all over the globe, and Malaysia is the dominant player in those markets, followed by the Gulf Cooperation Council (*thereafter* GCC) countries, namely Bahrain, Kuwait, Qatar, Saudi Arabia and United Arab Emirates (UAE). Oman is not included because its sukuk series starts in 2013.

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[1] The word Sukuk is the plural form of *Sakk which is one bond.*

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The motivation for this study arises from the perception that uncertainty factors are closely related to unexpected changes in financial and economic policies that may cloud the economic environment and disrupt decision-making. The previous studies on conventional financial assets highlight that financial distress, commodity market risk and financial uncertainty increase the risk that investors perceive when making financial decisions. However, no studies yet have dealt with the impact of these uncertainties and other risk factors on sukuk. In addition, a better understanding of the change in the dependence structure and the co-movement across sukuk is also one of the main interests for portfolio managers and a key component of determining optimal investment strategies. Moreover, there is a strong motivation for many investors of different faiths to use faith in investing, particularly those in the GCC markets which are very wealthy and highly faith-oriented.

The primary purpose of this paper is to investigate how major uncertainty indices in different financial markets and economic sectors shape the GCC sukuk return distributions. The indices include the global financial distress as represented by the Cleveland financial stress index (CFSI), the stock market uncertainty as captured by the CBOE volatility index (VIX), the global bond market uncertainty as arrested by the Merrill Lynch option volatility estimate (Move) index, the economic policy uncertainty as defined by the US economic policy uncertainty (EPU) index, and the commodity market uncertainty as represented by the CBOE crude oil volatility index (OVX) and the gold price uncertainty index (GZV). More specifically, we address the following unanswered questions. Does dependence exist between the GCC sukuk returns and the global uncertainty factors? Does the dependence structure change across quantiles? Is dependence symmetric or asymmetric? Are the GCC sukuk returns more affected by the global uncertainty factors than by the global sukuk index? Can the GCC sukuk provide international investors with more alternatives for hedging and diversification purposes?

This study differs from and add to the related literature on sukuk markets in two important ways. First, we investigate the GCC sukuk return dynamics with several major global financial, economic policy and uncertainty risk factors across different distribution quantiles. Second, we compare the sensitivity of the GCC sukuk returns and global sukuk returns to that of the global uncertainty factors. This comparison allows us to investigate the different investment alternatives and portfolio diversification opportunities between sukuk indices.

Several reasons motivate us to focus on the GCC sukuk market. The GCC countries account for approximately two thirds of the global Islamic financial assets and the GCC region along with Malaysia is the dominant player in the world sukuk market. In addition, the GCC economies are affected by several global financial and economic risk factors such as financial, economic and commodity volatility. Furthermore, these economies are interlinked with the U.S. economy as their exchange rates are officially or effectively pegged to the U.S. dollar, which requires coordination with the U.S. monetary policy (Balcılar et al., 2015). Finally, the investors in the GCC markets are wealthy and faith-oriented.

The study is conducted by the quantile regression analysis (*thereafter* QRA) which allows one to investigate the dependence dynamics under different market circumstances including states of downturns or bearish markets (lower quantiles) and upturns or bullish markets (upper quantiles). Using the daily data available from November 23, 2010 to April 30, 2015, our empirical results show: (a) a co-movement and causality between the GCC sukuk returns and the stock market uncertainty (VIX), the economic policy uncertainty (EPU) and the oil market uncertainty (OVX) in the lower quantile or during stressful times; (b) a co-movement and a causality between the GCC sukuk returns and the global financial distress index (CFSI) in the upper quantile or bullish times; (c) an independence and no causality between the GCC sukuk returns and the conventional bond market uncertainty (MOVE) and the gold price uncertainty (GZV); and (d) causality between the GCC sukuk returns and economic uncertainty only in the lower quantiles.

The remainder of the paper is organized as follows: Section 2 presents the main differences between sukuk and conventional bonds and an overview of the GCC sukuk market development. Section 3 reviews the literature and Section 4 provides the QRA methodology. Section 5 presents the data and preliminary statistics. Section 6 discusses the empirical results. Section 7 presents the robustness check of the empirical results. Section 8 concludes the paper and presents policy implications.

2. GCC sukuk market development

The word sukuk refers to certificates that demonstrate entitlement to a particular property (ies). It is defined by the Auditing and Accounting Organization of the Islamic Financial Institutions (AAOIFI)[2] as "the certificates of equal value representing undivided shares in ownership of tangible assets, usufruct and services or in ownership of the asset of a particular project or special investment activity".[3] Sukuk can be classified into asset-backed sukuk and asset-based sukuk. The main difference between these two groups lies in the ownership and sale of the assets. The asset-based sukuk include tangible assets, which may not be legally admitted to be owned outright by the sukuk holders. This structure grants only beneficial ownership to the sukuk holders and then implies that sukuk holders don't have full recourse to the underlying assets and the underlying assets are not used as collateral. The asset-backed sukuk allow the sukuk holder a share of the real asset or business venture. In this structure, there is a true sale transaction, where the originator of sukuk sells the underlying assets to a special purpose vehicle (SPV) that holds these assets and issues the sukuk backed by them.

The sukuk certificates have some similar features with conventional bonds since both have a fixed term maturity, their holders are entitled to a regular stream of income, there is a final market value payment at their maturities and they are tradable on the

[2] AAOIFI is a not-for-profit organization that is established to maintain and promote Shariah standards for Islamic financial institutions, participants and the overall Islamic finance industry.

[3] AAOIFI, 2008, "Sharia standards for financial institutions", page 307, paragraph 2.