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The Islamic risk factor in expected stock returns: an empirical study in Saudi Arabia☆

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ABSTRACT

This paper investigates the Islamic-effect in a cross-sectional stock return framework, and we believe this is the first paper that investigates the Islamic-effect in such a context. We test for the existence of an Islamic-effect by looking at differences in stock returns between Islamic and conventional firms in Saudi Arabia from January 2003 to April 2011. Results indicate that there is a negative relationship between Saudi Islamic firms and average stock returns. We refer to this negative relationship as the "negative Islamic-effect." We extend our results by using a time-series regression approach to show that the negative Islamic effect is, in fact, a common, systematic, and undiversifiable risk factor that affects the cross-sectional expected returns of Saudi common stocks. The results indicate that the Islamic risk factor (CMI) captures strong common variation in Saudi stock returns, regardless of other risk factors that are included in the model. Our findings suggest that using a four-factor model that controls for the market, size, book-to-market, and Islamic effects is more appropriate than using a single or three-factor model in Islamic finance applications, and this result has important implications for the growing Islamic finance industry around the world.

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1. Introduction

Increases in the wealth of Muslim investors have resulted in an increased demand for real and financial assets from Islamic investors from all over the world; however, devout Muslims are only willing to invest in goods, services, and financial products that comply with *Shariah* principles. The demand for *Shariah* compliant products by a growing global Islamic population has lead to significant research, development, and investment in *Shariah*-compliant products.[3] As a result, there are now Islamic stocks, mutual funds, market indices, and bonds (*sukuk*). Muslim investors now have the opportunity to participate in different capital and financial markets without fearing that they would be doing so at the expense of their Islamic identity, beliefs, values, and morals. The fact that Islamic investors demand financial products that adhere to specific guidelines raises an interesting question: Does adherence to *Shariah* law in financial contracts come with an additional cost? Several empirical studies investigate that question in different contexts by looking into how the application of Islamic finance affects the risk–return profile of different financial contracts. For example, there are studies that investigate the Islamic-effect in the context of mutual funds [Hoepner et al. (2011), Kräussl and Hayat (2011), Merdad et al. (2010), Merdad and Kabir Hassan (2012), Elfakhani and Hassan (2005), BinMahfouz and Kabir Hassan (2012, 2013)], the stock market [Girard and Hassan (2008), Hakim and Rashidian (2002, 2004), Hassan (2001), Hassan and Girard (2010), Hussein (2004, 2005), and Rubio et al. (2012)], and in the context of portfolios [Derigs and Marzban (2009) and Donia and Marzban (2010)]. Unfortunately, these studies demonstrate inconclusive evidence regarding the Islamic-effect and the manner in which it impacts the risk–return profile. Some studies find that there is a cost to adhering to *Shariah* law, while others find that there is no cost from doing so.

Prior research argues that Islamic investing comes at a cost, because *Shariah*-compliant products have less risk exposure and, therefore, reward investors with lower returns than conventional investment contracts. On the other hand, studies that associate no additional cost with Islamic investing argue that Islamic products are competitive with conventional products, and Islamic screens do not adversely affect the risk–return profile of *Shariah*-compliant products. Additionally, there is another line of literature that argues that *Shariah*-compliant products may offer good hedging opportunities against adverse market trends, because *Shariah* law is based on principles that are conducive to enhancing public good, increasing social welfare, adding real value to the economy, minimizing potential injustice, and avoiding environmental and social crisis. For example, *Shariah* law prevents investing in instruments such as toxic assets and derivatives that have adversely affected conventional products and triggered the recent 2008 global financial crisis.

One of the main reasons past research on the Islamic-effect are inconclusive is that the Islamic finance and investment industry is still relatively new, compared to its conventional counterpart, and the literature in the field of Islamic finance is still in its infancy. Thus, this paper attempts to bridge the gap in the existing Islamic finance and investment literature by investigating the impact of the Islamic-effect in a manner that is distinctive from previous studies. Specifically, we test for an Islamic-effect in the cross-section of stock returns. To our knowledge, this is the first paper that examines the Islamic-effect issue in such a context. We argue that developing Shariah-compliant financial contracts begins with defining the underlying operating environment of the firms to which the cash flows of the financial contract are connected. *Shariah* principles define the types of business activities in which Muslims are willing to engage. So, in this manner, *Shariah*-compliance is directly related to and affects firm fundamentals, such as the firm's primary business activities, riskiness, operations, financing sources, profitability, revenues, and leverage. Therefore, in efficient financial markets, we expect the impact of Islamic principles on important firm fundamentals to also be reflected in the values of the firm's financial assets.

The inconsistencies in previous results regarding the relative risk–return profile of Islamic financial products are alarming, because they imply that Muslim investors are not able to reasonably assess the costs and benefits of *Shariah*-compliant investments. In this study, we aim to fill this gap in the literature by determining how the implementation of Islamic principles on firm operations translates to the cross section of expected stock returns. Accordingly, we develop an empirical framework for testing the risks that are priced in the Islamic financial markets. It is difficult to do so, however, due to the fact that Islamic financial markets are still relatively small. A sample of Islamic stock data is needed that meets two criteria. Firstly, our sample market must contain a large enough sample of firms that are fully *Shariah* compliant. Additionally, the sample should

[3] *Shariah* is an Arabic word, and *Shariah* law is the legislative framework that regulates all aspects of life, both private and public.