Pacific-Basin Finance Journal 34 (2015) 169–183

Contents lists available at ScienceDirect

Pacific-Basin Finance Journal

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

The market timing ability and return performance of Islamic equities: An empirical study

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ARTICLE INFO

Article history:
Received 29 October 2014
Revised 9 June 2015
Accepted 9 July 2015
Available online 26 July 2015

JEL classification:
C14
G11
G15
G23

Keywords:
Islamic equities
Four factor model
Market timing
Non-parametric test

ABSTRACT

This study investigates the determinants of return performance of Islamic equity indices (IEIs). Empirical evidence suggests that the selection of securities and rebalancing of funds to comply with Islamic screening standards may result in superior returns for the investing public. We employ an extended four factor dynamic condition correlation GARCH model to a sample of IEIs from different regions for the period 2002–2013. The empirical results indicate a statistically significant difference between IEIs from developed markets and those from emerging markets during the sample period. Findings suggest that Shari'ah screening helps IEIs to select securities of firms that are not financially distressed, are growth oriented and are exhibiting a positive momentum. We further investigated whether Shari'ah-based screening provides any superior market timing ability over conventional benchmark indices using both parametric and non-parametric approaches. Market timing results showed that the majority of IEIs have negative market timing ability reflecting the conservative nature of Islamic equity investments whereby Shari'ah discourages investment in equities of highly leveraged corporations.

1. Introduction

During the recent global financial crisis Islamic equity investments have received significant attention as an alternative form of investment. Islamic equity investments are based on Islamic Jurisprudence principles (Shari'ah), which prohibits speculative trading and unethical lending practices — one of the major causes behind the global financial crisis (Ashraf and Goddard, 2012). The main principles of Islamic finance are based on the prohibition of interest, prohibition of investing in 'unethical' industries (such as alcohol industries), speculation, extreme uncertainty, and risk and return sharing (Shanmugam and Zahari, 2009). Islamic equity funds (IEFs) or Islamic equity portfolios are based on the above principles and provide an opportunity for investment to a large number of investors who desire investment in Shari'ah compliant equity funds. IEFs also provide an alternative to social responsible funds.

Lipper and Thomson Reuters (2014) report that asset under management (AUM) of Islamic asset management firms has doubled over the last six years reaching US$ 56 billion from US$ 26 billion in 2007. Due to the demand for Islamic finance, most major commercial investment banks and firms provide opportunities to invest in Shari'ah compliant funds. The number of Islamic mutual funds has more than doubled in the period 2007–2013 from 572 mutual funds in 2007 to 1065 in 2013 (Lipper and Thomson Reuters, 2014). Performance evaluation of Islamic mutual funds is a major challenge and to meet this need, all major index services

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http://dx.doi.org/10.1016/j.pacfin.2015.07.001
0927-538X/

providers including Dow Jones, Standard and Poor's (S&P), FTSE and MSCI, build and offer Islamic equity indices (IEIs) data based on independent Shari'ah screening criteria.

There is a plethora of published research examining whether mutual fund managers add value for investors, and if so how. Conventional finance literature decomposes fund performance into stock selection and market timing ability of fund managers (Fama, 1972; Kacperczyk et al., 2014). Both of these management skills are tested in the conventional finance literature extensively without any conclusive evidence.[1] It is a commonly held notion that many of the Islamic equity funds have lower diversification and often invest in riskier assets such as small cap, technology driven companies thus exhibiting different risk–return characteristics than conventional funds. Empirical evidence from the conventional funds may not apply to Islamic equity funds and thus requires a separate investigation.

A common finding in much of the Islamic finance literature is that equity portfolios consisting of shares in companies that comply with Shari'ah screening criteria perform better than conventional benchmark portfolios especially during the declining phase of capital markets (Abdullah et al., 2007; Alam and Rajjaque, 2010; Ashraf, 2013). The excess nominal return performance has been attributed to the management skills and/or to the screening criteria if it has an inherent capability to select the right securities (selection) at the right time (timing) without any human involvement (Ashraf, 2014). However, the major focus in existing literature is on the determination of abnormal return through stock selection abilities using Jensen (1967) and market timing skills using Treynor and Mazuy (1966) models.[2] Most of these studies applied ordinary least square (OLS) method for empirical estimation that do not consider the time-varying nature of the estimated coefficients and error terms as heteroskedastic (Lunde and Timmermann, 2004; Faff, 2001). Kacperczyk et al. (2014) found that both timing and selection skills are not only time varying but also period specific. Furthermore, Mansor et al. (2015) suggest that the evidence of timing skills of Islamic mutual fund managers reported in the existing literature disappears once the time-invariant normality assumption is addressed. Since management skills play a major role in the timing and selection of stock the performance of Islamic mutual fund cannot be attributed to the screening criteria alone. To isolate the impact of screening criteria from that of management skills, a screened equity index is preferred over mutual funds as the excess performance (if any) can be attributed to the screening criteria (Ashraf and Mohammad, 2014; Schröder, 2007). Besides the restrictive assumptions, most previous studies use the standard Treynor–Sharpe–Litner type capital asset pricing model (CAPM) that assumes borrowing and lending at risk-free interest rates; an assumption inherently counter to the basic principles of Islamic finance.

To address these concerns, this study employs a market model developed by Black (1972) as the base model, which does not assume the existence of any risk-free assets, to empirically investigate whether Islamic equity indices (IEIs) add any value for investors in terms of selection and/or timing capabilities inherent in the Shari'ah screening criteria. A multivariate dynamic condition correlation (DCC) four-factor GARCH model is used to identify the extent to which Shari'ah screening criteria is able to capture any abnormal return after controlling for value, size, and momentum factors implied by the underlying primary markets. Besides using the parametric approach of Treynor and Mazuy (1966) for identification of market timing, we also utilized the non-parametric approach proposed by Jiang (2003).

This paper contributes to the growing literature of Islamic finance on several fronts. By using the IEIs as a proxy for Islamic equity portfolios, we were able to exclude the impact of management skills from the performance of IEIs as compared with conventional benchmark indices. Hence, the empirical results reflect the value addition of *Shari'ah* screening only. The application of robust methodology for identification of selection and timing capabilities that complies with the basic tenets of Islamic investments is another important contribution of this paper. To the best of the authors' knowledge, no other study on Islamic finance has used Black's (1972) zero beta model.

The empirical results indicate a statistically significant difference between IEIs from developed markets and those from emerging markets during the sample period. IEIs investing in equities from developed markets from North America and Europe perform better than their conventional benchmark overall and during the global financial crises of 2008–09. It is evident that Shari'ah screening helps IEIs to choose securities of firms that are growth oriented, exhibiting a positive momentum, and not financially distressed. However, the market timing results (from both parametric and non-parametric based tests) indicated that IEIs exhibit a negative significant market timing ability. These results are in line with the assumption that highly leveraged firms exhibit higher distressed cost, and IEIs due to the Shari'ah based financial screening criteria do not invest in such firms.

The empirical findings are of interest to both the investing public and academia. Our results indicate that the investment in Islamic equity portfolios does not entail a higher risk or lower diversification. The difference in return performance is more distinct in developed regions where leverage plays a vital role in the capital structure of firms. Furthermore, the significance of growth and momentum factors is more evident among S&P Dow Jones' IEIs that use the market value of equity as the denominator in the calculation of financial screening ratios. Emerging markets' IEIs usually exhibit returns which are not very dissimilar from their conventional benchmark indices.

The rest of the paper is organized as follows. Section 2 reviews the relevant literature. Section 3 explains the data and descriptive statistics. Section 4 describes the empirical methodology for performance comparison among IEIs and convention indices with a discussion of empirical results. Section 5 reports the market timing methodology and a discussion of empirical results on market timing abilities of IEIs. Section 6 summarizes and concludes the paper.

2. Literature review

Performance measurement is an important consideration for all investors when investing in a portfolio of financial assets. Empirical literature on the portfolio performance measurement suggests a number of measures for performance evaluation and

[1] See for example Angelidis et al. (2013), Baker et al. (2010), Daniel et al. (1997), Bollen and Busse (2011), Fama and French (2009), Pástor and Stambaugh (2002), Kacperczyk et al. (2014) and Basu and Huang-Jones (2015) among several others.

[2] See for example Abdullah et al. (2007), Alam and Rajjaque (2010), Hoepner et al. (2011) and Ashraf (2013) among several others.