Available online at www.sciencedirect.com

Borsa İstanbul Review

Borsa İstanbul Review 15-2 (2015) 93−105
http://www.elsevier.com/journals/borsa-istanbul-review/2214-8450

Islamic stock markets and potential diversification benefits

Mouna Boujelbène Abbes [a,*], Yousra Trichilli [b]

[a] Faculty of Economics and Management of Sfax, University of Sfax, Unit of Research in Applied Economics − UREA, Tunisia
[b] University of Sfax, Unit of Research in Applied Economics − UREA, Tunisia

Received 3 September 2014; revised 3 March 2015; accepted 3 March 2015
Available online 11 March 2015

Abstract

The aim of this paper is to investigate whether the dynamic integration across a large set of developed and emerging Islamic stock markets allows potential diversification benefits in tranquil and turmoil periods. Using the multivariate cointegration test, we find the presence of long-run equilibrium relationship among Islamic stock markets of similar economic grouping. While, Islamic stock markets from different economic grouping are partially segmented. Empirical results of estimated Vector Error Correction Model provide a lowest level of short run integration among the economic grouping of European-Asian emerging markets, MENA-Latin American and European-Latin American Islamic stock markets. In addition, the level of integration and causality relations among Islamic stock markets tends to change over time, mainly during periods characterized by financial crises. Overall, our results suggest that Shariah compliant stocks could offer potential diversification benefits by considering different economic grouping such as that in developed and emerging countries.

JEL classification: G01; G11; G12; G15

Keywords: Islamic finance; Stock market integration; Diversification benefits; VECM

1. Introduction

The integration of the global stock markets represents an expansive area of research in financial economics that includes many different aspects of the interrelationships across stock markets. Stock markets integration has been defined according to two perspectives: the asset pricing perspective and the statically perspective. The first perspective suggests that if stock markets are completely integrated, identical securities should be priced identically in these markets (Naranjo & Aris, 1997). Consequently, in the case of perfect financial integration, international investors cannot obtain benefits from arbitraging opportunities. The second perspective suggests that highly integrated markets tend to move together and have stable long run relationships (Cheng, 2000). Thus, understanding the nature of stock markets integration is crucial for investors who are interested to diversify their portfolios across international stock markets.

According to the importance of information about the integrated markets, there has been voluminous literature examining the issue of stock market integration. Several studies focus on the conventional developed and emerging stocks markets.

Despite the enhanced increasing of Islamic banking and finance industry, particularly in aftermath of the recent global financial crisis, a few empirical studies have been interested to the integration among the stock markets in Islamic countries. The major difference between Islamic capital market and its conventional counterpart is that the former's activities are carried out in ways which does not conflict with the principles of Islam (Kartika and Ferdian, 2012). Islamic investing is based on five main principles, which include the prohibition of interest (riba), the banning of excessive uncertainty (gharar),

* Corresponding author.
E-mail addresses: abbes.mouna@gmail.com (M.B. Abbes), yousratrichilli@yahoo.fr (Y. Trichilli).

Peer review under responsibility of Borsa İstanbul Anonim Şirketi.

http://dx.doi.org/10.1016/j.bir.2015.03.001

the interdiction of speculation (maysir) risk and return sharing, and the prohibition of investing in 'unethical' industries (haram) (Shanmugam & Zahari, 2009). Nowadays, the stability and the resilience of Islamic finance against the global financial crisis has been an interesting topic of several researches. However, there is still limited number of empirical studies examining the integration of Islamic stock markets and the potential benefit diversification across these markets. Therefore, examining the dynamic pattern of integration among Islamic financial markets has crucial implications for investors, fund managers and other market makers who are interested to international portfolio diversification mainly in turbulent financial context.

This study investigates the dynamic pattern of integration among 27 developed and emerging Islamic stock markets. Specifically, this study allows firstly to empirically examine the potential diversification benefits across developed and developing Islamic stocks markets, secondly to investigate the impact of the subprime financial crisis on the long and short run dynamic relationships among a large set of Islamic stock markets and thirdly to examine influence the economic development level and the geographical factor on the comovement of Islamic stock markets. This paper contributes to the literature on Islamic finance in numerous ways. To the best of our knowledge, this is the first study to examine the impact of the economic development and geographical factors on the dynamic integration of a large set of Islamic stock markets. Indeed, we use data of developed and emerging Islamic stock markets from a large geographical area including European, American, Asia and MENA countries. Second, according to the severity of the recent global financial crisis, this study is one among the original studies in examining the impact of this crisis in the integration of developed and emerging Islamic stock markets. Third, results extracted from our empirical framework have A great importance for investors who are interested to international diversification benefits across Islamic stock markets mainly in the turmoil period.

The sequence of this paper is as follows. The next section briefly reviews the literature. Section 3 presents the data the empirical framework. Section 4 reports the empirical results. The last section gives the summary and conclusions.

2. Literature review

There has been voluminous literature on stock market integration and interdependence. Most of studies have been interested in conventional developed and emerging financial markets. Several empirical approaches are considered in this area. The first approach is based on the asset pricing modeling. Using multifactor asset pricing model, Campbell and Hamao's (1992) show that the US and Japan stock markets are perfectly integrated. De Jong and De Rong (2005) examine the integration of emerging stock markets with the world market. They develop a factor asset pricing model and find that emerging stock markets are less segmented from world stock markets. Moreover, the integration with the world tends to decrease the cost of capital. Hunter (2006) investigates the interdependence among three Latin American markets: Argentina, Chile and Mexico using a multivariate GARCH-in-Mean asset-pricing model. Empirical results suggest that after liberalization those markets have not become integrated into the world equity market. Imam and Kpodar (2013) show that economic integration between developed and Middle Eastern countries constitutes a factor that contributes to the development of Islamic finance system. Saiti et al. (2014) investigate whether Islamic stock indices provide potential diversification benefits for the US-based investors. Using the DCC- GARCH model, they found that the Islamic indices offer better diversification opportunity compared to the Far East countries.

The second approach examines the correlation coefficients among stock markets over certain time period. A highly correlation coefficients provide evidence that stock markets are integrated. In this sense, Masih and Masih (1999) find that the stocks markets in Thailand, Malaysia, the U.S., Japan, Hong Kong, and Singapore are segmented from 1992 to 1997. Chelley-Steeley (2005) examines the market relationships among several equity markets of Eastern Europe. He models the movement of bivariate equity market correlations as a smooth transition trend. Results show that Hungary is the country which is becoming quickly integrated. Johnson and Soenen (2002) analyzed the equity market co-movements between the Japanese stock market and other twelve equity markets in Asia. In addition, they examine the factors that affect economic integration. They conclude that the equity markets of Australia, China, Hong Kong, Malaysia, New Zealand, and Singapore are highly integrated with the stock market in Japan.

Majdoub and Mansour (2013) investigate the volatility spillovers between the US stock market and five Islamic emerging stock markets. By considering three multivariate GARCH models named BEKK, CCC, and DCC, they find that the US and Islamic emerging equity markets are weakly correlated over time.

The third approach uses the cointegration framework to explore the stock markets interdependence. To assess how the level of integration in equity price levels changes over time, Aggarwal, Lucey, and Muckley (2003) use cointegration techniques to examine time-varying dynamic financial linkage between the European markets and the US equity market over the 1985–2002 period. They document the presence of long-run equilibrium relations especially during the period 1997–1998. By considering the GMM estimation methods, Abd Majid (2005) study the interrelationships among the Asian, Japanese and US stock markets. Results of this study suggest that the stock markets in the Asian region are highly integrated among them and with the Japanese and US stock markets. Rangvid (2001) examine the degree of stock market integration among France, Germany, and the UK during the period 1960–1999. They find that the three major European stock markets have been increasingly integrated in 1990s. This finding has been confirmed by Erdinc and Milla (2009). These authors show that stock exchange markets of France,