Emerging Markets Review 24 (2015) 160–187

Contents lists available at ScienceDirect

Emerging Markets Review

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

Regional and global spillovers and diversification opportunities in the GCC equity sectors

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ARTICLE INFO

Article history:
Received 18 June 2014
Received in revised form 25 May 2015
Accepted 15 June 2015
Available online 2 July 2015

JEL classification:
C32
G11
G15

Keywords:
GCC-wide equity sectors
Multivariate regime-switching
Time-varying correlations
Financial integration
International portfolio diversification

ABSTRACT

This paper examines the international diversification benefits of bloc-wide equity sectors in the oil-rich Gulf Cooperation Council (GCC) countries by comparing alternative spillover models that encompass local, regional and global factors. Some GCC-wide equity sectors/subsectors are found to display segmentation from global markets during periods of high and extreme market volatility, and thus can serve as safe havens for international portfolio investors during such periods. The in- and out-of-sample portfolio analyses further suggest that supplementing global portfolios with positions in the GCC markets yields significant international diversification benefits, consistently offering much improved risk-adjusted returns across the alternative spillover models.

1. Introduction

The 2007/2008 financial crisis which originated in the U.S., the prolonged debt crisis and the economic uncertainty that wrapped the Eurozone have sent severe shocks throughout the world's financial markets. These difficult times have also underscored the importance of emerging markets as potential risk diversifiers and return enhancers when the developed markets are in crises. As Balli et al. (2014) note, a number of factors including aging populations in mature markets and growing interest for alternative investments have led to significant shifts in global wealth to emerging market economies. To that end, the under-studied emerging

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http://dx.doi.org/10.1016/j.ememar.2015.06.002
1566-0141/

and frontier stock markets in the oil-rich Gulf Cooperation Council (GCC) countries offer several unique features that make them a viable alternative as a diversifier in international portfolios.[1] This paper proposes a dynamic model of risk exposures of key equity sectors/subsectors in GCC stock markets with respect to local and global shocks and examines the potential diversification benefits of these fast growing markets for international portfolio investors.

Most GCC countries impose varying restrictions on foreign ownership in their stock markets in order to shield themselves from the adverse effects of regional and global shocks (Table 1). Foreign ownership restrictions, along with a number of other institutional issues, have therefore prevented most of the GCC markets from being classified as emerging markets. On the other hand, government revenues and corporate profitability in the GCC countries are influenced by oil prices and exports which are largely driven by global economic growth factors.[2] Information may also flow to these markets through international macroeconomic linkages which include cross-country trade and customs relationships, foreign direct investments, interrelated portfolios and monetary and fiscal policy arrangements (Mensi et al., 2014). Furthermore, the GCC economies are interlinked with the U.S. market as their exchange rates are pegged to the U.S. dollar, which requires coordination with the U.S. monetary policy. Therefore, it can be argued that the information and shocks relevant to changes in the U.S. and other international stock markets may affect the GCC stock markets from multiple channels. To that end, whether or not the GCC markets indeed exhibit segmentation from global financial shocks and thus can serve as a hedge or safe haven for international portfolio investors can be best described as an empirical issue to explore.

Motivated by the finding that industry-based diversification yields more efficient portfolios than country-based diversification (Moerman, 2008), this study focuses on sector portfolios and examines a wide range of defensive and growth equity sectors including energy, financials, industrials, basic materials and utilities in addition to several sub-sectors including industrial and commercial services, transportation, banking and real estate. As Hammoudeh et al. (2009) note, sector investing in the GCC stock markets has not yet reached the level of sophistication their developed counterparts have reached. Investing in the GCC sectors became opportune after the GCC countries have recently reorganized and classified their sectors with much greater detail than before.[3] Nevertheless, the sector-based approach offers an interesting dimension of diversification as it covers different aspects of the macroeconomy, particularly in the context of regime-based models utilized in this study.

The main goal of this paper is to explore the diversification benefits of the cash- and oil-rich stock markets in the GCC bloc by examining the risk exposures of GCC-wide equity sectors with respect to regional and global factors. By doing so, this study contributes to the literature on return/volatility spillovers and international diversification in several aspects. First, it develops a dynamic two-factor model of GCC-wide equity sector returns with regional and global market shocks as risk factors. The two-factor specification follows Baele and Inghelbrecht (2010) who show that the restricted single factor specification, which is generally utilized in the literature, leads to incorrect inferences regarding financial integration. Second, it investigates the regional and global market exposures of the GCC-wide equity sectors using regime-switching spillover models in which the global, regional, and sectoral returns are allowed to have common synchronized and unsynchronized (general) return processes. While there have been several studies that examine the transmission of returns among individual GCC country sectors (Hammoudeh et al., 2009), how the volatility spillovers occur among various sectors and across different market regimes is yet to be explored. Third, unlike in most studies in the literature (e.g. Ang and Bekaert, 2002, 2004; Baele, 2005; Baele and Inghelbrecht, 2009, 2010; Bekaert and Harvey, 1995), this paper does not make prior assumptions on the number of market regimes describing the return processes, but instead it determines the number of regimes by formal statistical testing. Furthermore, we allow all model parameters to vary across different regimes. By doing so, we provide a more realistic representation of the structural changes in risk exposures as revealed by the data. Finally, unlike most spillover studies in the literature (e.g. Baele and Inghelbrecht, 2009, 2010), we supplement our analysis by

[1] Frontier, also called pre-emerging, markets refer to the less developed and less liquid subset of emerging stock markets that are too small to be considered emerging. MSCI has recently promoted two GCC markets, i.e. Qatar and UAE, from frontier to emerging market status.

[2] Saudi Arabia is placed first in the global oil exporter ranking, while UAE and Kuwait are ranked 6th and 10th, respectively.

[3] The new sector classification follows the Thomson Reuters Business Classification System.