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Investor herds and regime-switching: Evidence from Gulf Arab stock markets

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ABSTRACT

This paper proposes a dynamic herding approach which takes into account herding under different market regimes, with concentration on the Gulf Arab stock markets – Abu Dhabi, Dubai, Kuwait, Qatar and Saudi Arabia. Our results support the presence of three market regimes (low, high and extreme or crash volatility) in those markets with the transition order 'low, crash and high volatility', suggesting that these frontier markets have a different structure than developed markets. The results also yield evidence of herding behavior under the crash regime for all of the markets except Qatar which herds under the high volatility regime. The findings of the cross-GCC herding model also demonstrate herding comovements and not spillovers and are also robust to the cross-GCC volatility shocks. The tests that underline the cross-volatility shocks suggest that the crash regime is a true regime and not a statistical artifact. Policy and portfolio diversification implications are discussed.

1. Introduction

Herding behavior in financial markets has attracted increasing attention over the past decade. The literature defines herding as an obvious intent by investors to ignore their personal beliefs (or information) and copy the behavior of other investors (Bikhchandani and Sharma, 2001), leading them to trade in the same direction and thus moving in and out of markets as a group (Nofsinger

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and Sias, 1999). Even though such behavior among investors can be driven by rational or irrational motives, it can clearly lead to market stress by pushing asset prices away from their fair values as supported by the economic fundamentals, hence driving up market volatility (Blasco et al., 2012). Most of the herding literature concentrates on developed markets, while other studies focus on prominent emerging markets. This study considers frontier markets.

The first contribution of this paper is to extend the literature on investor herds to frontier stock markets in the Gulf Cooperation Council (GCC) countries – namely UAE (Abu Dhabi and Dubai), Kuwait, Qatar and Saudi Arabia – which can be highly sensitive to herding for reasons indicated below. The second and main contribution is to propose a modification to the standard herding approach employed in prior studies, and utilize a new herding model that takes into account herding under different market regimes, with concentration on these oil-rich countries. For this purpose and as warranted by the data, we estimate a three-state Markov-switching (MS) model for the cross-sectional dispersions of stock returns in the five GCC stock markets, and examine the relationships between their market returns and return dispersions during different market regimes. Unlike the standard herding methodology available in the literature, this alternative specification allows us to differentiate between different market states when herding behavior may or may not exist. Thus, our paper has three novelties. There are three-regimes suggested by the data, with the third one specifying herding under a crash. All parameters of the model are allowed to vary across regimes and not only the variance. Finally, the MS specification fully allows regime-specific volatilities by specifying regime-dependent heteroscedasticity.

There are multiple reasons that make examining herding behavior in the GCC stock markets of particular interest. First, the economies of the GCC countries are highly sensitive to oil prices and propped by oil revenues.[1] Therefore, the developments in the global oil market, either in the form of rumors or facts, can potentially generate herding behavior in the GCC stock markets. Second, GCC stock markets are classified as frontier markets due to a number of market and institutional issues including liquidity, lack of effectiveness of their delivery versus payment settlement system, ownership limits on foreign investments, etc. Therefore, regional more than global shocks such as the shocks in their real estate markets can push investors to the railing. Third, regional geopolitical factors can also create additional uncertainty regarding the performance of these markets and may trigger the fear instinct among investors, potentially leading to herding behavior where investors are likely to copy the behavior of others. Fourth, the GCC countries are connected through a political and economic union, so a market shock in one member country can be quickly transmitted to the other members, institutionalizing herding mentality. In these markets, misinformation or lack of information would deprive GCC investors from the privilege of resorting to the fundamental analysis to make sound market decisions, thus providing individual investors with incentives to simply go with the market consensus. Finally, the major GCC countries like Saudi Arabia and UAE possess large amounts of money but they suffer from limited investment opportunities and under-populated stock exchanges which can be characterized by the phenomenon "too much money chasing too few stocks". Therefore, the lack of sufficient investment opportunities in these markets that are flushed with cash, coupled with a lack of investment culture among retail investors which dominate the GCC markets, can further feed into herding tendencies in these markets. For these reasons, it would be interesting to study herding in markets where stocks are thinly traded and some prices may take several trading days to move. Furthermore, the fact that these GCC countries are classified as frontier markets and currently bidding to be upgraded to the emerging market status makes it even more interesting and valuable to examine herding behavior in these markets.[2]

Regarding possible motives for herding behavior among investors, a number of papers in the literature have provided explanations. However, one must note that these explanations have generally been applied to developed markets and may not fit very closely with a possible herding behavior in developing stock markets, including those in the GCC countries. One strand of literature including Shleifer and

[1] A prospective study that incorporates oil prices and other global factors will require the use of weekly data because of different trading days in the week between the GCC and world markets.

[2] All GCC markets are frontier markets which aspire to be upgraded to the emerging market status as defined by the index provider MSCI.