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Stock price synchronicities and speculative trading in emerging markets

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ABSTRACT

The literature suggests that the strong price synchronicity observed in emerging markets is driven by the lack of firm-specific information acquisition. This paper extends previous studies by focusing on the question of whether investors' speculative trading behavior or market conditions make the synchronicity in emerging markets more pronounced. Our results indicate that the propensity to engage in speculative trades and a low level of linkage with the world market lead to greater stock price synchronicity. These results are consistent with the hypotheses that it is difficult to price firm-level fundamentals in a speculative market where noise trades prevail, and that less weight is attached to firm-specific fundamentals in pricing stocks in a more segmented market. The price synchronicities are largely found to be stronger in bearish markets, a finding consistent with the hypothesis that investors have increased loss aversion during bear markets, which further limits informed arbitrage.

1. Introduction

Emerging markets have shown to have vastly different features from developed equity markets, including higher sampling average returns, lower correlations with developed market returns, more predictable returns and higher volatility (e.g., see Bekaert and Harvey, 1995, 1997, 2000). Another interesting feature, namely, high intra-market equity price synchronicity in emerging markets, is first

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examined by Morck et al. (2000) and then by Li et al. (2004) and Chan and Hameed (2006), among others.

Stock price synchronicity measures the extent to which stock prices in one market move together and depends on the relative amounts of firm-level and market-level information capitalized into stock prices (Roll, 1988). Morck et al. and Li et al. find that stock prices in low-income economies move in a relatively synchronized manner and that this phenomenon is not entirely attributable to differences in the size or structure of the market. In particular, Morck et al. apply their 'good government index' to show that the lack of information acquisition leads to stock price synchronicities.

This study attempts to understand whether there exist market characteristics pertaining to investor behavior that can be proxied by variables, other than those qualitative indexes formed with institutional assessments, which may add to the phenomenon of stock price synchronicity in emerging markets. In contrast to the comparisons made across developed and emerging markets by Morck et al., this study chooses to focus on the low-income high-synchronicity emerging market regime. Note that our narrowing down of sampled markets actually poses a greater challenge as it is statistically more difficult to identify the explanatory factors with less cross-sectional variation in synchronicities. Such an approach also helps us identify factors that were not distinguishable in previous studies.

High stock price synchronicity arises because firm-specific fundamental information is difficult to price in the market and country-specific risk factors are excessively weighted by investors. In this study, we specifically test the following research questions. First, we look to see whether stock price synchronicity changes with the length of return horizon. If firm-specific information tends to spill over to other stocks and becomes less distinguished across firms as time evolves (see Huberman and Regev, 2001), one would expect stock price synchronicities to increase as the holding period is extended. On the other hand, if informed arbitrage on stocks is exercised over longer intervals, stock price synchronicities will decrease with the holding period length (see French and Roll, 1986; Roll, 1988; Durnev et al., 2004).

Second, this study further examines the market characteristics responsible for the different stock price synchronicities across emerging markets. The literature offers various explanations for a high stock price synchronicity (e.g., see Chang et al., 2000; Morck et al., 2000). We examine the stock price synchronicities across emerging markets in relation to three classes of market factors, one concerned with the economic/financial development and financial structure of the market, one assessing the speculative nature of the market, and one assessing the level of globalization of the market. The first class of factors has been widely acknowledged and tested in the literature. The emphasis of our study is on the other two classes, which pertain to the investors' trading style and how investors respond to firm-level information relative to country-level information. Panel analysis is implemented to investigate the sources of high stock market synchronicity.

Finally, we study the time variation of emerging market synchronicity. It allows us to examine the impact of recent developments in financial markets and international trade relations on market synchronicity and, more importantly, to test whether the market synchronicity changes asymmetrically with market conditions. As suggested by Christie and Huang (1995), if market participants suppress their own predictions during particular market conditions, e.g., during bearish markets, and base their investment decisions only on aggregate market behavior, individual asset returns will not diverge substantially from the overall market return, leading to greater return synchronicities.

This study finds the following results. We show that firm-level information, by comparison with market-level information, becomes even less significant in pricing stocks as the holding period is extended. This evidence supports the argument that firm-specific information tends to be contagious, affecting other stocks, and becomes less distinguished across firms as the measured return horizon is extended from one week to four weeks. Alternatively, the result also suggests that noise trades are not mitigated by arbitrage within a four-week period of time. Next, we find that a higher propensity to engage in speculative trades and a lower degree of integration with the world market are important market factors leading to greater stock price synchronicity. These results are consistent with the hypotheses that firm-level fundamentals are difficult to price in a speculative market where noise trades prevail and that more weight is attached to country-specific information in pricing stocks in a more segmented market. Finally, our time series analysis indicates that the price synchronicities in the majority of our sampled markets exhibit more pronounced stock synchronicities during periods of