ELSEVIER

International Review of Economics and Finance 15 (2006) 364–382

IREF International Review of Economics & Finance

www.elsevier.com/locate/iref

Has the Asian crisis changed the role of foreign investors in emerging equity markets: Taiwan's experience

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Received 25 September 2004; received in revised form 9 December 2004; accepted 5 January 2005
Available online 2 May 2005

Abstract

This paper examines whether the 1997 Asian crisis changed the trading behaviors of foreign investors and of local institutional investors in Taiwan's stock market. There is little evidence that the Asian crisis changed the relationship between equity flows and market returns in Taiwan's stock market but there is evidence that volatility effects and volatility spillover were strengthened after the crisis. The general findings are (i) feedback trading arguments are much stronger than information arguments; (ii) relationships between returns and sale changes are the weakest but volatility effects using sale measures are the strongest; (iii) strong volatility effects and volatility spillover are found after the crisis; and (iv) the results for domestic institutional investors are slightly stronger than those for foreign investors.

JEL classification: G15; F21; F30

Keywords: Foreign investors; Asian crisis; Volatility spillover; Taiwan

1. Introduction

Until early 1990, emerging countries continued to open their markets to attract foreign capital and investors were eager to diversify their portfolios internationally. Henry (2000) documents that

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1059-0560/$ - see front matter
doi:10.1016/j.iref.2005.01.003

financial market liberalizations attract foreign investment, which facilitates risk sharing among foreigners and local investors and reduces the cost of capital in the local market. In the aftermath of the Mexican, Asian, and Russian crises of the 1990s, several authors began to argue that international investors contribute to and amplify financial crises by rapidly withdrawing their funds.[1] Under such circumstances, the benefits of capital inflows are weakened and the dangers of adverse capital outflows grow strong. Krugman (1998) argued that imposing capital controls could be an effective way to stabilize the markets. Following Krugman's suggestion, Malaysia reimposed capital controls in September 1998. Today, China and Chile maintain restrictions on foreign capital flows, and Korea, Russia, and Turkey, among others, are debating the benefits of free capital mobility (Johnson & Mitton, 2003). For policymakers of developing countries where policies on financial market liberalization are reevaluated often, understanding the impact of foreign equity flows on their exchange rates and stock markets has become important, particularly during crisis periods.

This study provides a valuable perspective that one can learn from a large emerging market, the Taiwan's stock market, which has imposed rigid capital controls since 1991, and makes its contribution for policymakers very important as they decide whether or not to impose controls and if so, what controls to adopt.[2] This paper extends the literature by focusing on three issues. First, if a country faces a severe financial crisis, a major sale of local securities by foreign investors would be expected; however, the behavior of those sales during crisis periods as opposed to non-crisis periods is not well understood. Second, past studies of equity flows have focused on net purchases, that is, equity purchases minus equity sales, rather than on the two separate aspects of purchases and sales. If a goal of policymakers in these emerging markets is to attract foreign funds for the benefit of increased liquidity and lowered cost of capital, they need to know the behaviors of such purchases and net purchases. Similarly, since rapid foreigners' selling appears to promote instability in these markets, policymakers need to understand the selling characteristics as well. Thus this paper analyzes equity market purchases, sales, and net purchases. Third, past studies have emphasized mean effects between flows and returns rather than volatility effects and volatility spillover effects. This paper investigates relationships between flows and returns and expands to include relationships between flows and return volatility, between returns and flow volatility, and between flow volatility and return volatility.

Using Taiwan's daily market data, five aspects of the relationship between purchases and returns, between sales and returns, and between net purchases and returns are studied. The first two aspects are feedback trading and information contribution effects in that market returns Granger cause equity flows and equity flows Granger cause returns, respectively. These two approaches will be applied to purchases, sales, and net purchases. Third, volatility effects of flows on return volatility, of returns on flow volatility, of flow volatility on returns, and of return volatility on flows will be investigated and fourth,

[1] See, for example, Aitken (1998), Sarno and Tayor (1999), and Stiglitz (1998).

[2] It should be noted that Taiwan is not a representative country for emerging markets relative to the Asian crisis. Due to its strict regulation on stock trading activities by foreign investors, Taiwan's stock market was able to withstand the speculative attack and was not affected by the Asian crisis as much as the crisis-hit Asian countries—Thailand, Indonesia, Korea, and the Philippines, where stock markets and exchange rate markets were seriously damaged by the crisis. The ability to compare Taiwan's market with these in-crisis countries would be very good, but data availability does not allow at this time.