Profitability of Technical Analysis in the Singapore Stock Market: before and after the Asian Financial Crisis

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Abstract

In the aftermath of the Asian financial crisis, a series of reform and liberalization measures have been implemented in Singapore to upgrade its financial markets. This study investigates whether these measures have led to less profitability for those investors who employ technical rules for trading stocks. Our results show that the three trading rules consistently generate higher annual returns for 1988-1996 than those for 1999-2007. Further, they generally perform better than the buy-and-hold (BH) strategy for 1988-1996 but perform no better than the BH strategy for 1999-2007. These findings suggest that the efficiency of the Singapore stock market has been considerably enhanced by the measures implemented after the crisis.

• JEL Classification : G14, D92
• Key Words: Asian financial crisis, profitability, technical analysis, moving average, trading range breakout
I. Introduction

More than ten years have elapsed since the outbreak of the Asian financial crisis. During the crisis, the Straits Times Industrial Index (STII), the previous benchmark indicator of the Singapore stock market, plummeted almost 60 percent from a high of 2,007 on 8 July 1997 to a low of 805 on 4 September 1998! The crisis prompted the Monetary Authority of Singapore (MAS) to implement an array of reform and liberalization measures intended to, in the words of the then Deputy Prime Minister Lee Hsien Loong, “rectify existing inefficiencies in the capital markets and sharpen the competitive edge.” Today, Singapore is widely recognized as one of the major world financial centers, surpassing its financial status before the crisis.

The crisis of 1997-1998 could serve as a watershed in the upgrading of Singapore’s financial markets. Before the mid-1980s, the brokerage industry in Singapore and the companies listed on the Singapore Exchange (SGX), according to a June-2004 study by the MAS, were “essentially unregulated.” Basically, there were no specific supervision rules and no prudential requirements set for brokerage firms. The Pan Electric crisis in November 1985 forced the MAS to suspend trading on the SGX for three days to make remedial arrangements and restore public confidence in the stock market. Again in February 1995, the Barings incident further tarnished the reputation of Singapore as a major Asia-Pacific financial center. In the ensuing years after the crisis, the MAS and the Singapore government have implemented a series of reform and liberalization measures to upgrade its financial markets.

In fact, many empirical studies present evidence that the Singapore stock market before the Asian financial crisis was far from being efficient. For example, Kester (1990) demonstrates that Singapore stocks offer more profitable opportunities for

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1Kim and Singal (1997) and Kim (2003) point out some major advantages for emerging nations to open up their securities markets to foreign investors.
2At present, more than 700 local and foreign financial institutions have business offices in Singapore offering a wide range of financial products and services.
3Before 1 December 1999, the Singapore Exchange (SGX) was named the Stock Exchange of Singapore (SES).
4The underlying cause of the crisis was that a few brokerage firms excessively financed their clients’s share purchases through equity-related forward contracts during a time when stocks on the SES were considerably over-valued. The crisis erupted when individual and institutional investors were unable to meet their obligations on the forward contracts on Pan Electric shares.
5On the Barings incident, Timothy Moe, the director of research for Salomon Brothers in Hong Kong, puts it, “the regulatory mechanisms of the Singapore International Monetary Exchange proved woefully inadequate.”