



Tests of Informational Efficiency of China's Stock Market

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for the Degree of Doctor of Philosophy**

by

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Abstract

This thesis investigates the efficiency of the new emerging market of China in accordance with the theoretical framework of the Efficient Market Hypothesis (EMH), focusing on weak form and semi-strong form market efficiency. Empirical tests have been intensively conducted on the random walk hypothesis, the presence of market seasonality and the price reaction to the announcement of public information. To obtain a complete picture of the efficiency of China's Stock Market, studies were applied to indices and individual securities for the A-shares, B-shares, the shares listed in the Shanghai market and Shenzhen market, respectively. Daily, weekly and monthly data frequencies were analysed.

Empirical results show that the serial correlation of daily returns on market indices is statistically significant. The serial correlated return patterns are more significant in B-shares than in A-shares. Furthermore, the returns on market indices display more serial correlation than the returns on sector indices. The returns on sector indices are more correlated than the returns on individual shares' prices. As the intervals, in which the returns are calculated, extend from a day to a week and then to a month, the magnitudes of serial correlation decline. In summary, the stock prices of both the Shanghai and Shenzhen markets do not follow a random walk.

The day-of-the-week effects on China's Stock Market exhibit a pattern similar to those on the Australian and Japanese markets. The mean return on Tuesdays, rather than on Mondays, is the lowest of the week. The month-of-the-year effects on China's Stock

Market present a unique pattern that differs from the general pattern on most of world's markets. Mean returns in December and January are negative. Positive and Significant mean returns occur in August. The holiday effects display a certain variation between the Shanghai and Shenzhen markets. The analyses suggest that even if some of the test-statistics for the seasonal patterns are not statistically significant, they are "economically significant." For this particular sample of data, abnormal profits would have been made from a trading strategy.

Based on four main events (non-dividend issue, cash dividend issue, bonus issue and rights issue) and two types of announcements (proposal and approval), thirty-seven samples (portfolios) were constructed for the event studies which are tests of the semi-strong form efficiency. The studies show that China's share traders receive the announcement of zero-dividend issue as 'bad' news. A-shares traders are pessimistic in responding to the announcement of cash dividend proposals. The traders' attitudes toward the announcements of bonus and rights issues depend on the specific scheme of the issues. Whether an announcement is followed by a further announcement of a new event also affects stock price behaviour. The underreaction or overreaction of stock prices to the announcement has been found in twenty of thirty-seven samples.

This thesis illustrates that China' Stock Market are neither weak form nor semi-strong form efficient. The efficiency of China's Stock Market will be improved by enforcement of market regulation, promotion of informational transparency, mitigation of government intervention, and so forth.