

## DOCTORAL THESIS

### Overreaction in Asia-Pacific index futures markets

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# **Overreaction in Asia-Pacific Index Futures Markets**

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# ABSTRACT

Under the efficient market hypothesis (EMH), the asset prices should fully reflect all relevant information and future asset prices will not be predictable based on past information. However, we found intraday price reversals were found in Asian Pacific index futures markets following extreme movements in US stock market overnight. The observed price reversals cannot be explained by non-behavioral factors such as stop-loss activities, bid-ask bounces and thin trading. It is inconsistent with the implication of EMH.

On the other hand, we found that the observed price reversal is indeed triggered by the investors' overreaction to the overnight US stock market performance. For example, the greater the magnitude of the overnight US return, the greater is the overreaction. The price reversals were reduced after holiday, it is consistent with the calm down effect in psychological reaction. Intraday patterns of the futures were also studied, and we found that the overreaction will not be completed in a short period of time. All these suggest that the price reversals are caused by investors' behavioral biases.

A parallel study by Fung, Mok and Lam (2000) and Fung and Lam (2004) reported that the overreactions in the Hang Seng Index futures were related to the opening gap in futures prices and yesterday's basis. In this dissertation, we added these two factors with the overnight US return to explain the overreaction in the futures markets.

We developed different trading strategies based on the overreaction hypothesis and compared their performances with the benchmark buy-and-hold strategy. Although some strategies can generate profits in many markets and in many out-sample periods, no single trading strategy can beat the benchmark buy-and-hold strategy in all markets and in all periods.

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