



ELSEVIER

Available online at www.sciencedirect.com

SCIENCE @ DIRECT®

Pacific-Basin Finance Journal 13 (2005) 547–561

PACIFIC-BASIN
FINANCE
JOURNAL

www.elsevier.com/locate/pacfin

Who trades in the stock index futures market when the underlying cash market is not trading?

Yue-cheong Chan*

School of Accounting and Finance, Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

Received 16 October 2002; accepted 4 March 2005

Available online 9 June 2005

Abstract

This paper studies the trading of Hang Seng Index futures contracts on the Hong Kong Futures Exchange since the Exchange began to open earlier and close later than the underlying cash market by 15 min. We show that the extension of trading hours stimulates the opening trading volume of the futures market. Futures returns surrounding the market opening are found to be relatively less volatile with insignificant change in pricing errors when compared with the pre-extension period. These observations suggest that activities during the extended opening session are related with private information but not with public information or noise.

© 2005 Elsevier B.V. All rights reserved.

JEL classification: G14; G15

Keywords: Extended trading hour; Noise trading; Hong Kong futures market; Public and private information

1. Introduction

The study of interdependence between futures and cash markets has attracted much attention from finance academics and practitioners.¹ Although most of these studies have

* Tel.: +852 2766 7118; fax: +852 2356 9550.

E-mail address: afycchan@polyu.edu.hk.

¹ For example, Stoll and Whaley (1990a) found that S&P 500 and Major Market Index futures returns tend to lead stock market returns by about 5 min, and lagged stock index returns also have a mild positive predictive impact on futures returns. Chan et al. (1991) discovered a strong inter-market dependence on return volatility for the S&P 500 stock index and index futures contracts.

focused on institutional settings in which both futures and their underlying cash markets are concurrently traded, the behavior of a futures market under the closure of its underlying cash market is another interesting topic in the finance literature. Among the extant studies in the latter line of research, [Chang et al. \(1995\)](#) conducted a pioneer empirical investigation on Standard and Poor's (S&P) 500 index futures market during the last 15-min period when the underlying stock market is closed. Their findings confirmed the prediction of certain financial models. Specifically, they found that the volatility of futures prices first drops, as predicted by the contagion model of [King and Wadhvani \(1990\)](#), and subsequently increases in the closing minutes, as suggested by the asymmetric information models of [Admati and Pfleiderer \(1988\)](#) and [Foster and Viswanathan \(1990\)](#).

Following [Chang et al. \(1995\)](#), several studies were conducted on the Hang Seng Index (HSI) futures contracts traded on the Hong Kong Futures Exchange (HKFE). [Ho and Lee \(1998\)](#) showed the presence of contagion and information effects for the period from April 1993 to March 1997 when the HSI futures market extended its trading hours beyond that of the underlying cash market by 5 to 15 min. [Fong and Frino \(2001\)](#) suggested that the decline in the HSI futures volatility associated with the closure of the cash market can partially be explained by the fall in the bid–ask bias of futures prices. In a more recent study, [Cheng et al. \(2004\)](#) showed that return innovations from the extended opening session of the HSI futures market help to explain the overnight return in the cash market.

Despite the existence of the previously mentioned studies, an important research issue is still waiting to be addressed: which type of investors dominates the trading of futures contracts when there is no activity in the cash market? Volatilities in securities market can generally be classified as those originated from public information, private information, or noise ([French and Roll, 1986](#)). Although information-based trading helps to speed up the price discovery process, noise trading causes the price to deviate from its intrinsic value. By investigating which type of investors is trading, we can understand whether the price contained in futures contracts is informative or noisy when the cash market is closed.

This paper makes a contribution to the existing literature by formulating and testing the public information, private information, and noise trading hypotheses for the extended trading hour of Hong Kong's HSI futures market. At the same time, it also differs from the previous related studies in several other aspects. [Chang et al. \(1995\)](#) and [Ho and Lee \(1998\)](#) examined only the last 5 to 15 min of the futures market after the cash market has closed. Our study provides a richer investigation as no concurrent trading occurs of the underlying stocks for both the first and the last 15 min of the futures market during our sample period. The extended opening session of the futures market is characterized by the accumulation of information arrived overnight, and we are interested whether it will behave differently from the extended closing session. Furthermore, we analyze the pricing efficiency of future contracts—an issue that has not been addressed in any previous study.

On November 20, 1998, the HKFE extended the trading hours of its HSI futures contracts by opening 15 min earlier and closing 15 min later than the underlying cash market, the Stock Exchange of Hong Kong (SEHK).² The major impact of this event can

² According to [Fong and Frino \(2001\)](#), the HKFE extended the trading hours of the HSI contracts in response to the introduction of trading in MSCI Hong Kong stock index futures on the Singapore International Monetary Exchange on the same date.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات