

The Effect of a Closing Auction on Market Quality and Market Efficiency in the Stock Exchange of Hong Kong

Kalok Chan

The Chinese University of Hong Kong

Chen Yao

The Chinese University of Hong Kong

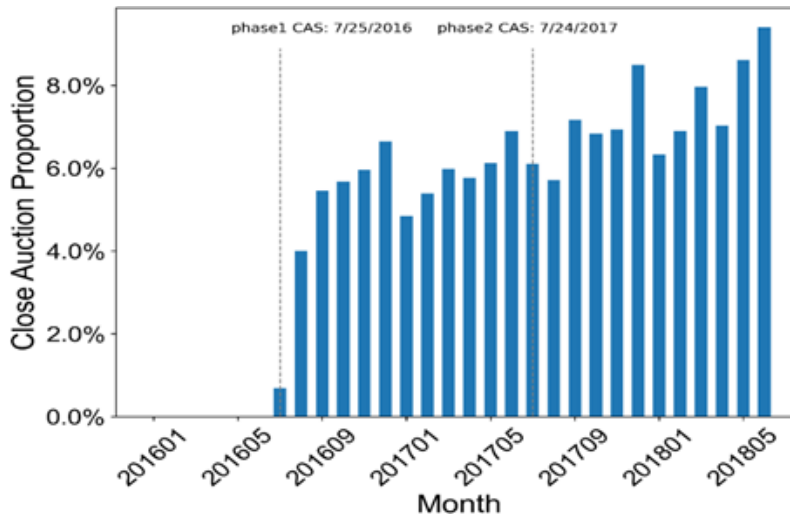
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Summary

Hong Kong introduced the Closing Auction Session (CAS) to the HKEX securities market in 2016. Under the CAS, trading is extended by an extra 8-10 minutes after the daily trading session ends at 16:00 to determine the closing price for the day. Trading under the CAS is in the form of a single price auction, at which buyers and sellers submit orders so that the trading system determines a market clearing closing price for each security and orders are executed at that price. CAS was introduced in three phases, covering constituent stocks of Hang Seng Composite LargeCap and MidCap Index since July 25, 2016, constituent stocks of Hang Seng Composite SmallCap Index since July 26, 2017, and all equities, funds, and leveraged and inverse products since October 8, 2019. The introduction of CAS is to meet the needs of some investors, such as index fund managers, who need to trade at the closing price.

This study investigates the effect of CAS on market liquidity and price efficiency, two major aspects of financial market quality, to see whether it may safeguard against extreme price volatility and improves price efficiency. The analysis is conducted based on Hang Seng LargeCap and Midcap stocks after the introduction of CAS in July 2016.

Percentage of Closing Auction Volume



Since its inception, the trading volume for LargeCap and MidCap stocks transacted during the CAS has experienced steady growth, with the percentage of volume accounting for more than 8% by June 2018. The CAS draws volume mostly from the end of the continuous trading session, with the last 15-minute interval (15:45-16:00) contributing the largest volume migration. On the other hand, the decline in volume in the rest of the continuous session is very small.

To address our main research question, we examine the effect of CAS on a variety of market liquidity and price efficiency measures. Regarding the impact of CAS on market liquidity, we find that the introduction of the close auction results in a slight decline in liquidity during the continuous trading session, with the reduction of liquidity most pronounced in the last 15-minute interval, as evidenced by a wider bid-ask spread and lower depth. However, the price impact (defined as the absolute return divided by the trading volume) in the last 15-minute decreases significantly.

Regarding the impact of CAS on price efficiency, if the uninformed traders migrate to the close auction from the daily session, we expect a temporary price pressure near the close of the daily session to fall and a weaker subsequent price reversal. Using the return reversals observed subsequent to the end of the daily trading session, from the trading price at 16:00 to the trading price of the next day, we find that this is indeed the case. There is a general pattern of return reversal, but the magnitude of the reversal is smaller after the introduction of CAS. This indicates that price is more efficient after the implementation of CAS. The finding is in line with the evidence suggesting that passive funds shift from the continuous trading session to the closing auction session. These passive funds are incentivised to trade near the market close, as they are benchmarked against the index they track based on the closing price. Since these passive fund investors demand liquidity from the market, their migration to the closing auction session will lower liquidity in the last 15-minute period of the continuous trading session but can increase price efficiency at the market close.

Overall, the introduction of CAS by HKEX is beneficial to many market participants who use the closing price as a reference price for the day-end settlement of many financial securities, such as mutual funds' NAV, the asset value of exchange-traded funds.