



Market Notice: F5884

Date: 13 February 2013

December 2012 Futures Close-out Auction Feedback

Participants are reminded that upon market request the Futures Closeout (FCO) methodology was changed in September 2012 from a process using 100 iterations to an intraday auction. The 20 December 2012 FCO was the second FCO using this new intraday auction methodology. The December FCO was very active during a time when the underlying equity market is traditionally heading into a quieter period. The FCO experienced a degree of volatility and price behavior that concerned some market participants. A number of concerns and further questions and queries around the processes and procedures followed on this day have been raised with the JSE. This market notice serves to clarify and confirm some of the outcomes from an analysis by the JSE in response to these queries.

Item 1: The FCO auction did not follow the correct procedures agreed upon by the market

The JSE can confirm the 20 December 2012 FCO worked exactly as designed. The history of the FCO design can be traced back to Market Notice F5453 which requested market input with regards to the length of the Price Monitoring Extensions and the thresholds of the Circuit Breakers triggering them. After confirmation by the Financial Derivative Advisory Committee (FDAC) 23rd August 2012, these details were published in Market Notice F5545A and F5545B.

The FCO auction occurring every 3rd Thursday of every quarter (March, June, September and December) starts at 12:00. The duration of the FCO auction call session is 15 minutes. The auction process uses the same algorithm as a normal closing auction for instruments in ZA01, ZA02, ZA03 and ZA06. The session includes a random 30 second uncrossing period at the end of the auction. There are a maximum of two Price Monitoring Extensions (PME) of 4 minutes each and one Market Order Extension (MOE) of 2 minutes. Table 1 below shows all the thresholds relevant to the current FCO methodology:



Table 1 Final Thresholds for PME's

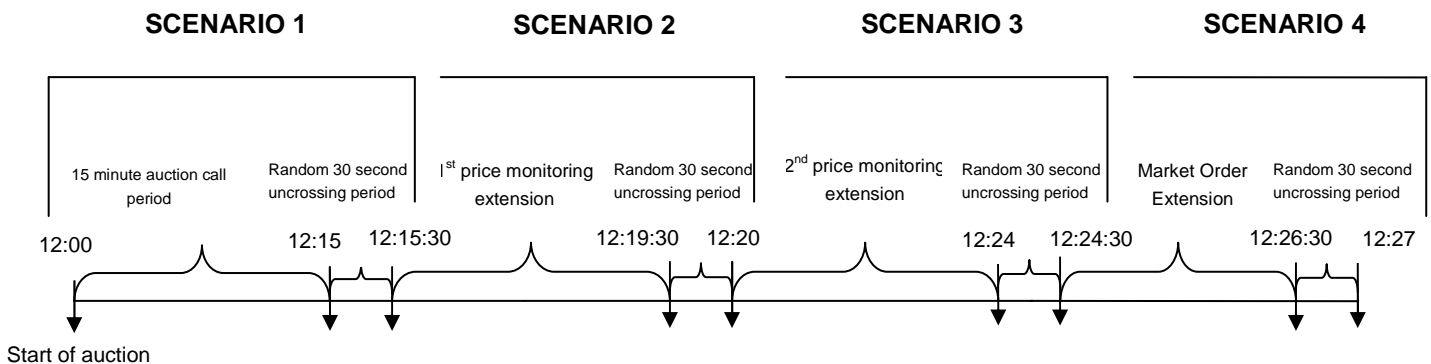
Segment	Dynamic Circuit Breaker for a NORMAL Trading Day Closing Auction	Static Circuit Breaker for a NORMAL Trading Day Closing Auction	Dynamic Circuit Breaker for a FCO Auction	Static Circuit Breaker for a FCO Auction
ZA01	5%	10%	2%	10%
ZA02	10%	20%	4%	20%
ZA03	None	None	None	None

Settlement Price Calculation Waterfall

NOTE: The FCO Settlement price for individual names will be the Uncrossing Price at the end of the FCO auction call session. If the share does not uncross (trade) at the end of the auction or extensions, the FCO Settlement price will be the last AT/UT prior to the FCO auction call session. If the share did not trade on the current day, the FCO settlement price will be the previous day's closing price.

The FCO price for an Index would be the constituent prices explained above rolled up to an index level applying the index rules/weightings.

The timeline given below is an illustration of the potential length of an auction in different scenarios.



Scenario 1: Underlying equity enters intraday 15 minute auction call session with random 30 second uncrossing

Scenario 2: Underlying equity enters 1st Price Monitoring Extension period

If the execution price of the equity lies outside of the defined tolerance (circuit breakers) then the auction call session will be extended by 4 minutes.

Scenario 3: Underlying equity enters 2nd Price Monitoring Extension period

It has been agreed that there will be 2 Price Monitoring Extensions (PME's). Similar to scenario 2, if after the first PME the equity lies outside of the defined tolerance (circuit breakers) then the auction call session will be extended by an extra 4 minutes.

Scenario 4: Underlying equity enters Market Order Extension period

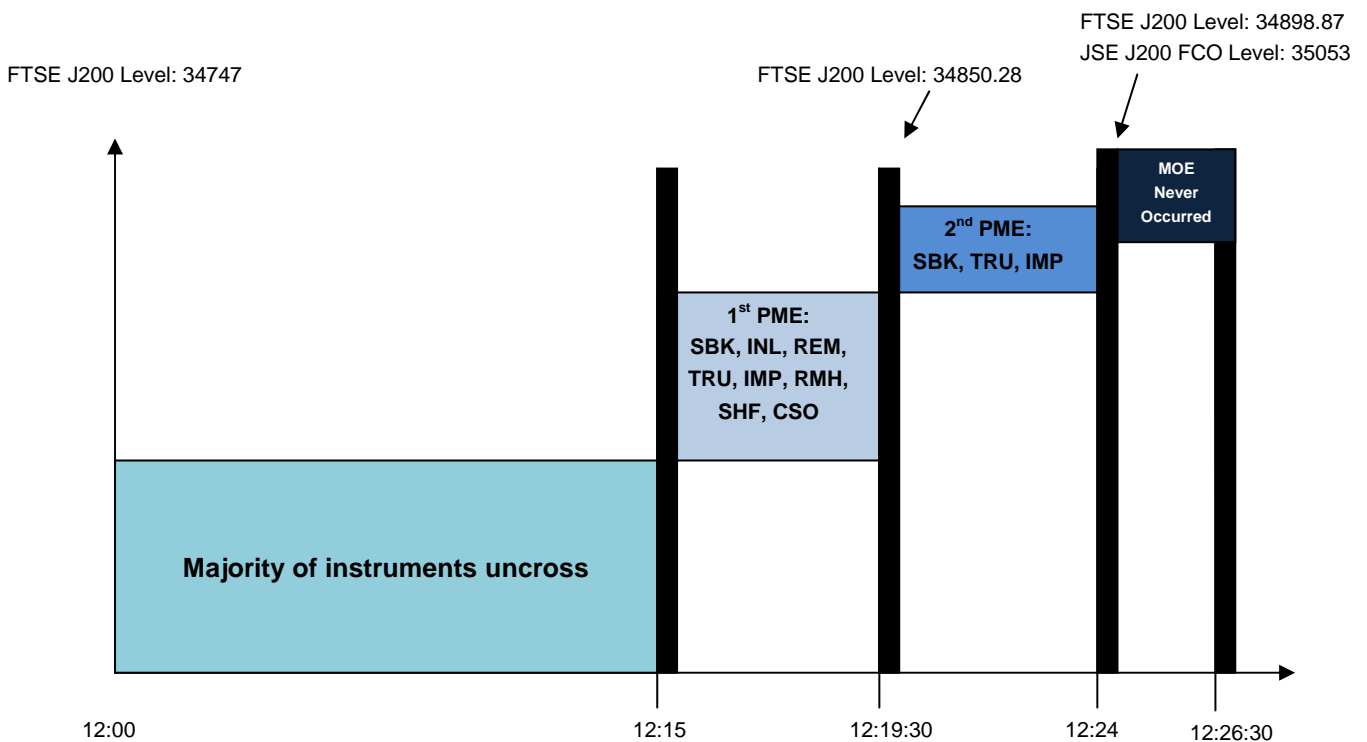
If market orders within the order book are not executable or partially executable the session can be extended by a further 2 minutes.

Behaviour of Top 40 Index Constituents in Dec 2012 FCO

Some instruments in the December 2012 FCO auction breached their price tolerances thereby triggering the circuit breakers described above. The following instruments were impacted and the sequence of events that occurred was:

- i. 8 shares breached the 2% dynamic circuit breaker set for ZA01 and went into the 1st PME. The shares were **SBK, INL, REM, TRU, IMP, RMH, SHF, CSO**;
- ii. **INL, RMH, REM, CSO and SHF** uncrossed between 12:19:19 and 12:19:44;
- iii. **SBK, IMP and TRU** went into a 2nd PME for a further 4 minutes and uncrossed between 12:23:13 and 12:23:54.

The above sequence of events is shown on the timeline below:



Item 2: Calculation of J200 index price by FTSE differing from the JSE

The methodology used by FTSE to calculate the J200 index value does not change during the FCO auction period. Once the first auction call period had ceased and the majority of index constituents came out of the 30 second uncrossing period with an uncrossing price, FTSE re-calculated the value of the J200 index. A "snapshot" of the price of each index constituent was taken as they started to trade along with those that

entered into the PME phases with stale pre-auction prices. These prices were then used to calculate a value for the J200 index which was published real-time by FTSE. Once the constituent shares that had an uncrossing price continued to trade the value of the J200 calculated by FTSE continued to change.

As a result, the FCO index level published by the JSE at the end of the FCO timeline was different from that which was calculated real-time by FTSE. The final closeout price will only be published by the JSE once every constituent of the index has a closeout price subject to the Settlement Price Calculation Waterfall described under Item 1.

As a result of the difference in calculation methodology between the JSE and FTSE there was a difference of 154 points at 12:23:30 as some of the instruments used in the FTSE J200 calculation had traded away from their FCO uncrossing prices.

Item 3: Potential Price Manipulation

JSE Surveillance monitors activity in all Futures Close Out auctions in order to detect any evidence of possible price manipulation. This process was followed in the 20 December 2012 FCO auction and no evidence of manipulation was detected.

The price behavior in a call auction is the result of the interaction between limit and market orders on the order book and market orders receive priority in the auction algorithm. A comparison was made between the September and December FCO in respect of the balance between market and limit orders across the shares involved in the FCO in the ZA01 segment.

% Orders that were Market Orders	Sep-12	Dec-12
Sell Orders	95%	74%
Buy Orders	91%	98%

These shifts in the balance between the order types had a direct influence on the price pressure on certain shares that resulted in the PME being triggered. Furthermore market participants active in the FCO auction will have been aware of the indicative auction price (IAP) published by the JSE during the auction. The comparison of the IAP and the visible best bid and offer (BBO) would have revealed that the IAP was higher than the BBO, an indication of substantial market orders.

Please refer to the following link for the Trading and Information Overview Document (Section 8.6- Order Book Matching priority and Executions) for more information regarding Item 3:

http://www.jse.co.za/Libraries/JSE_Trading_and_Information_Systems_Equity_Market_Trading_and_Information_Technology_Change/Volume_00- Trading_and_Information_Overview_v1_06.sflb.ashx

Item 4: Website with FCO Auction Uncrossing Prices

In an effort to create more transparency in terms of the prices and notifications coming out of the FCO auction the JSE IT Department is working on launching a website that will provide real-time data on the FCO auction processes and the uncrossing prices of instruments. This process had previously been implemented during the previous 100-iteration futures closeouts. This information was valued at the time. Should all shares cross during the FCO and no PME's triggered, the live FTSE index is concurrent with the FCO calculation. The size

of the difference between the live FTSE index and the FCO index result can become more significant in a volatile or running market, as one or more shares do not cross during the initial auction period and enter one or more PMEs. During the September 2012 closeout no shares entered a PME compared to 8 shares in the December 2012 FCO. The December result has highlighted the need to reinstitute the publishing of the indicative FCO index during the process. A Market Notice will be issued with the details of the site once it goes live. This will ensure that the market receives live data and transparency on the prices for the benefit of members of both the cash equities and equity derivative markets.

Should you wish to discuss any aspects of this market notice, please do not hesitate to contact the JSE.

Graham Smale

Director: Bonds and Financial Derivatives

Tel: +27 11 520 7831

Fax: +27 11 520 8831

E-mail: grahams@jse.co.za