

## **CIRCUIT BREAKERS FAQs**

### **GENERAL**

#### **1) What is a circuit breaker?**

A circuit breaker is a price band set which varies with movements in the traded price of the instrument throughout the day. The price band comprises an upper and lower price limit based on a deviation of 10% from the reference price. (See question 11 of this FAQ for information on how the reference price is determined.)

#### **2) What is the reason for introducing circuit breakers on SGX?**

There are no circuit breakers in place in the SGX Securities market currently. In the event of rapid price movements, investors may not have time to make informed decisions when they trade.

Circuit breakers are intended to guard against disorderly situations in the face of rapid and unchecked market movements. By implementing circuit breakers, investors are given time to assimilate incoming information and make informed choices during periods of high market volatility.

#### **3) How does it work?**

The circuit breaker is activated when an incoming order could potentially match an existing order in the order book at a price outside the circuit breaker price band. Trades at the limits will not activate the circuit breaker.

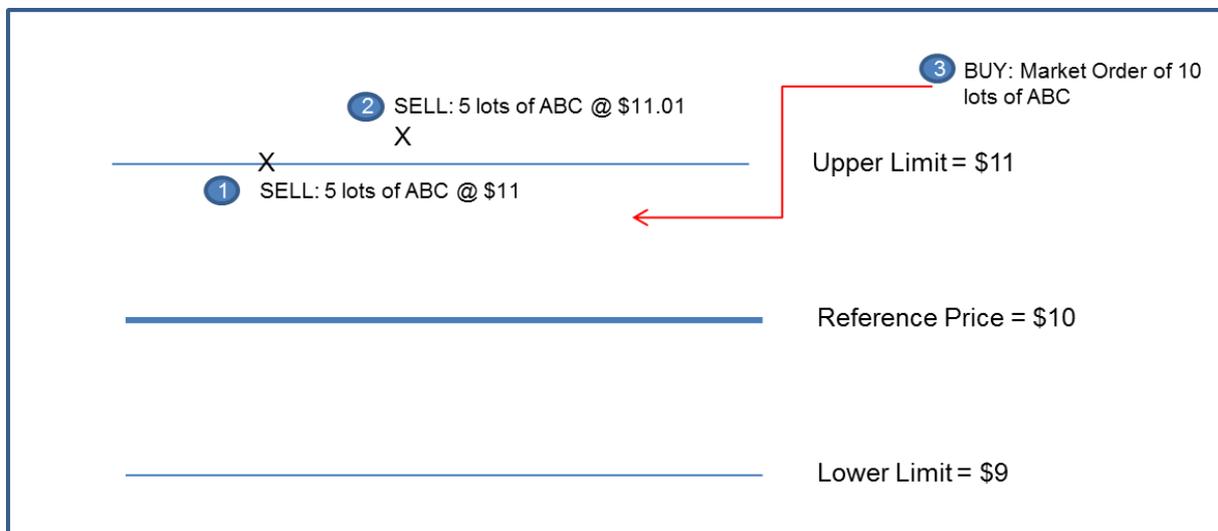
#### **4) What happens when the circuit breaker is activated?**

When the breaker is activated, a cooling off period of five minutes will take place. During the cooling off period, trading can still take place within the existing price band.

All the existing orders will be unaffected and new orders can still be placed in the order book as long as they do not result in the matching of trades outside the price bands.

Any incoming order that is immediately able to match against another order at a price outside of the existing price band will be rejected. However, it will not extend the cooling-off period.

An illustration



Scenario: Circuit breaker for ABC shares is triggered and a 5-minute cooling off period is in place.

- 1) There are only 5 lots of sell order of ABC shares in the order book when the cooling off period starts (Price @\$11).
- 2) Investor A puts in a sell order of 5 lots of ABC shares at \$11.01. Though this order is outside the upper limit, it is accepted as there is no corresponding match of orders.
- 3) Investor B puts in a buy market order of 10 lots of ABC shares.

Only buy orders on 5 lots of ABC shares will be accepted and matched against the existing sell order of ABC shares at \$11. The other 5 lots of buy order for ABC shares will be rejected by the system as it can match the 5 lots of sell order of ABC shares at \$11.01, which is outside the upper limit.

**5) How do investors know when the circuit breaker is triggered?**

When the circuit breaker is activated, a CIRB indicator will appear in the "Rmk" column of the affected counter on the price page of the SGX website for the duration of the cooling-off period.

**CIRB**

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**My Watchlist** Page [ 1 ]

| Counter Name                                  | SIP | Cde | Rmk  | Last  | Chg    | % | Vol | BVol | Buy | Sell  | SVol | Open  | High  | Low   | Value | Sector |
|---|-----|-----|------|-------|--------|---|-----|------|-----|-------|------|-------|-------|-------|-------|--------|
| <input type="checkbox"/> Kael thas Sunstrider |     | T4Y | CIRB | 0.500 | +0.500 | - | 0.1 | 0    | -   | 1.000 | 0.1  | 0.500 | 0.500 | 0.500 | 50    | Multi  |

**6) How do brokers know the circuit breaker is activated?**

When the circuit breaker is activated, an announcement will be broadcasted to notify Trading Members of the activation of the circuit breaker. The announcement will take the form of a session state broadcast to Trading Members via their Trading APIs. Trading Member if required, will then be able to relay the necessary information to its client.

**7) How do brokers know their orders are rejected due to the activation of or during cooling off period?**

When an order is rejected due to the activation of or during a cooling-off period, brokers get return codes from the trading engine, similar to other instances of order rejection. The return codes for this form of rejection are as follows:

- (a) Code 17 –no part of the order placed in the order book and no part filled; or
- (b) Code 19 –order partially filled and nothing placed in the order book.

**8) Will the cooling off period be extended?**

No, during a cooling off period, if any incoming order can potentially match against an order outside the price band, it will be rejected. However, the cooling off period will not be extended.

**9) When is the circuit breaker in operation?**

The breaker will operate continuously from 9:00 am to 17:00 pm on a normal trading day during the continuous trading phase. Accordingly, it will not be active during the opening and closing routine.

Participants will be able to place orders outside the breaker limits during the opening and closing routines and the resulting prices could lie outside the breaker limits. The opening and closing routines inherently limit the risk of disorderly trading since all trades are executed at one price at the end of each routine.

**10) Will there be instances when the cooling off period of the circuit breakers will be shorter than 5 minutes?**

The cooling off period will cease operation upon the commencement of any for the following, even if five minutes has not elapsed:

- (a) Pre-Close Phase;
- (b) Suspension; and
- (c) Trading Halt.

## 11) How is reference price set?

### First Reference Price of the Day

The first reference price of the day is determined as follows:

- (a) the opening price of that day; failing which
- (b) the last traded price (or closing price) on the previous trading day; failing which
- (c) the last available traded price.

### Reference Price During Continuous Trading

The dynamic reference price during continuous trading is determined as follows:

- (a) the last traded price as of five minutes prior to each potential trade; or,
- (b) if no trades are executed in the continuous matching phase of that trading day, the first reference price of the trading day.

### Reference Price after Cooling-off Period

If there are trades done during the cooling-off period, the reference price for trading after the cooling-off period will be

- (a) the last traded price as of five minutes prior to each potential trade (accurate to the nearest second, and from the last trade done in the second); or,
- (b) if no trades are executed in the continuous matching phase of that trading day, the first reference price of the trading day.

If no trades are done during the cooling-off period, the first trade after the cooling-off period will not be subject to any circuit breaker. It can be executed at a price outside the price band, and will serve as the reference price for the next five minutes.

### Reference price following the lifting of a halt/suspension

In the event that trading has been suspended or halted for any reason, the circuit breaker will be in operation when trading resumes. The reference price for the first five minutes immediately following the resumption is determined as follows:

- (a) the Equilibrium Price; failing which
- (b) the last traded price in the Trading Phase preceding the halt/suspension; failing which
- (c) the first reference price of the trading day.

## 12) Will the reference price and price bands be disseminated?

No, the reference price and price bands will not be disseminated to market participants in the initial launch.

## 13) What instruments are covered by circuit breakers?

The instruments covered include:

- (a) all Straits Times Index and MSCI Singapore Index component stocks

- (b) all other stocks/units with a price at or more than \$0.50 in the underlying currency including:
  - a. Stapled securities
  - b. Funds
  - c. Exchange Traded Funds
  - d. Exchange Traded Notes
- (c) all Extended Settlement Contracts whose underlying is subject to the circuit breakers

**14) What is the threshold for non-Singapore Dollar denominated instruments?**

A consistent threshold of \$0.50 has been adopted across all instruments in different currencies to avoid confusion to market participants.

**15) What is the reference price for Extended Settlement contracts (ESC)?**

The reference price for an ESC will be the reference price of its underlying instrument at all times<sup>1</sup>. The price band for ESC will therefore be the same as its underlying.

**16) What happens to Structured and Company Warrants when the underlying counter is in cooling-off period?**

When an instrument is in cooling-off period, the associated Structured and Company warrants will halt trading. The halt in trading will lift with the end of the cooling-off period of the underlying instrument.

**17) How do investors know that trading in Structured and Company Warrants has halted when the underlying counter is in cooling-off period?**

When the Structured and Company Warrants are halted due to the activation of circuit breaker in the underlying instrument, a CIRH indicator will appear in the “Rmk” column of the affected counter on the price page of the SGX website for the duration of the cooling-off period.

**CIRH**

Result for : [ al a ]      Records : [ 1 ]      As at 24-12-2013 1:14 PM

My Watchlist      Page [ 1 ]

| Counter Name | SIP | Code | Rmk  | Last  | Chg    | % | Vol | B Vol | Buy | Sell | S Vol | High  | Low   | Value |
|--------------|-----|------|------|-------|--------|---|-----|-------|-----|------|-------|-------|-------|-------|
| ▲ Al ar      | @   | T5FW | CIRH | 0.600 | +0.600 | - | 0.2 | 0     | -   | -    | 0     | 0.600 | 0.500 | 110   |

**18) Are circuit breakers for dual currency counters linked?**

<sup>1</sup> For the STI ESC, the reference price will be the reference price of the SPDR STI ETF.

Dual currency counters on the same underlying instrument will be subject to independent circuit breakers.

**19) Are circuit breakers for counters with different board lot sizes on the same underlying linked?**

Related counters of different board lot sizes on the same underlying such as Singtel/10/100 will be subject to the circuit breaker independently, with no coordination of price bands or cooling-off periods.

**20) Will circuit breakers apply to IPOs?**

Circuit breakers will not apply for IPO instruments on the first day of trading. This is because the offer price of a New Listing may differ significantly from market prices. Imposing circuit breakers on the first day may impede the price discovery process unnecessarily.

**21) Will circuit breakers apply to the unit share and buying-in markets?**

No, the unit share and buying-in markets will not be covered by circuit breakers.

**22) Will circuit breakers apply to Direct Business trades?**

Direct Business trades outside of the prevailing price band that are reported to SGX-ST will not lead to the circuit breaker tripping. This is because these trades are privately negotiated and are not derived from market interactions; therefore they should not set off the circuit breaker.

**23) Why are stocks below \$0.50 not covered?**

Lower priced stocks are generally more volatile. Applying the same thresholds across these instruments may, therefore, lead to frequent trips of circuit breakers. This will be overly disruptive to trading. For example, a stock with a reference price of \$0.20 would have its circuit breaker triggered with only a 2 cent move in a 5 minute period.

As the impact of low-priced, non-index instruments on the value of the overall market is not significant and poses low contagion risk to the wider market, and as circuit breakers are new to the market, we have taken the approach to start with a single tier price band to avoid confusion to the market.

SGX will be monitoring the market following the implementation of circuit breakers and will conduct a post-implementation impact review to assess the need to cover low priced stocks in the long run.

Investors must take note that circuit breakers are not meant to act as a loss prevention mechanism but to guard against disorderly situations in the face of rapid and unchecked market movements

**24) Where can I find information on this initiative on SGX's website? Pls state the URL.**

Information on the initiative is found at [www.sgx.com/faqs](http://www.sgx.com/faqs).

## ERROR TRADE POLICY FAQs

### 1) What is an error trade?

An error trade is a transaction resulted from an error in the entry of the volume of an order, the price of an order or the name of the security.

Investors are reminded to exercise due care when entering orders in the trading system to avoid error trades.

### 2) What is the reason for revising the error trade policy on SGX and what are the changes?

The changes to the error trade policy seek to promote greater trade certainty in trades executed and reduce the incidences of trade cancellation.

SGX will:

- (i) introduce a no-cancellation price range for all securities (except bonds) and Extended Settlement Contracts;
- (ii) align the treatment of error trades in structured warrants with that of other instruments in the SGX Securities market by replacing the existing approach of outright cancellation with review by SGX;
- (iii) remove the trade loss of \$5,000 before a trade is eligible for SGX's review; and
- (iv) revise the trade review fee from S\$500 to S\$1,000.

These changes take effect from 24 February 2014.

The summary of the changes for different instruments is set out in the table below:

| <b>Bonds</b>                       | <b>No-cancellation price range</b> | <b>Error Trade Review Fee</b> | <b>Review by SGX on an error trade</b>                                  |
|------------------------------------|------------------------------------|-------------------------------|---|
| <b>Existing Error Trade Policy</b> | Not applied                        | \$500                         | Only error trades of loss amount $\geq$ \$5,000 are eligible for review |
| <b>Revised Error Trade Policy</b>  | Not applied                        | \$1,000                       | Any error trade is eligible for review                                  |

| All securities (except bonds) & Extended Settlement Contracts | No-cancellation price range   | Error Trade Review Fee | Review by SGX on an error trade   |
|---|---|------------------------|---|
| Existing Error Trade Policy                                   | Not applied   | \$500                  | Only error trades of loss amount $\geq$ \$5,000 are eligible for review                   |
| Revised Error Trade Policy                                    | (i) +/- 20 minimum bid sizes or (ii) +/-5% from the reference price, whichever is wider | \$1,000                | Any error trade that falls outside the no-cancellation price range is eligible for review |

| Structured Warrants         | No-cancellation price range   | Error Trade Review Fee | Review by SGX on an error trade   |
|-----------------------------|---|------------------------|---|
| Existing Error Trade Policy | (i) +/- 20 minimum bid sizes or (ii) +/- 25% from the reference price, whichever is wider | \$500                  | Only error trades of loss amount $\geq$ \$5,000 and such error trades falling outside the no-cancellation price range are eligible for review |
| Revised Error Trade Policy  | No change from the Existing Error Trade Policy  | \$1,000                | Any error trade that falls outside the no-cancellation price range is eligible for review   |

### 3) How is the no-cancellation price range applied?

The no-cancellation price range is computed based on a prescribed number of minimum bid sizes or percentage, whichever is wider, from the reference price (based on the last valid trade). As an example, if the reference price of a share is \$3, the ranges of prices that are derived based on +/- 5% and +/- 20 minimum bid sizes from the reference price are:

- (v) +/- 5% from the reference price. Between \$2.85 and \$3.15; and
- (vi) +/- 20 minimum bid sizes from the reference price. Between \$2.80 - \$3.20, using the applicable minimum bid size of \$0.01. Minimum bid sizes are set out in Rule 8.3.3 of the SGX-ST Trading Rules.

The no-cancellation price range will therefore be from \$2.80 to \$3.20, as it is the wider of the two ranges of prices.



For prompt resolution of error trades, it is important that investors and their trading representatives adhere strictly to the stipulated timeline for reporting error trades and referring them for SGX's review.

#### **6) What outcomes can an investor who has executed an error trade expect?**

If counterparty to the error trade agrees to cancel the trade, there are no settlement obligations for the investor.

If the counterparty to the error trade does not agree to cancel the trade, the investor may request his trading representative to refer the error trade to SGX for review. Investors should note the deadline for doing so and carefully consider the trade review fee involved. SGX will not cancel any error trades referred to it that are within the relevant no-cancellation price range. The no-cancellation price range is not applied to bonds.

For error trades outside the no-cancellation price range, SGX will, in its discretion, review the error trade having regard to the factors outlined in SGX-ST Rule 8.6.12, including, but not limited to, the difference between the price at which the error trade was done and the preceding traded price, the market liquidity at the time the error trade occurred and the difference between the time the erroneous order was entered and the time it was matched, when deciding whether to cancel an error trade. Regard is also given to whether the investor exercised due care in order entry. The outcome of an error trade referred to SGX for review will be communicated to your trading representative, who will then inform you of the outcome. The outcome of SGX's review is final.

#### **7) Where can an investor find information on error trades that were reported?**

SGX will inform the market when an error trade has been reported, and of the outcome when the matter is resolved. A market message will be sent when (i) an error trade is reported to SGX and (ii) whether the error trade is determined to remain valid or to be cancelled. Depending on the time of reporting and resolution, the market messages will be disseminated on the trading day itself or before market opens the next trading day.

The market messages will be disseminated via (i) the trading engine to both trading members and market data subscribers and (ii) on SGX's website at [www.sgx.com/securities/trading](http://www.sgx.com/securities/trading). Investors are reminded to trade carefully in the security for which an error trade has occurred.