

Circuit Breaker Mechanism in China

Shenzhen Stock Exchange

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深圳证券交易所
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1. Background

Definition and Origin

➤ Definition

Circuit Breaker refers to the mechanism that when the price fluctuation reaches a threshold value stipulated by the Exchange, the trading of stocks or futures will be suspended for a period of time, or trades will only be conducted within the stipulated threshold.

➤ Origin

The 1987 US Stock Market Crash: A 28.6% drop of S&P 500 index future in CME was recorded on Oct 19, 1987. After the crash, circuit breaker mechanism was launched in the NYSE and CME in 1988.

The circuit breaker mechanism was later introduced to securities markets in Europe, Korea and Singapore. It was also carried out in the emulational stock index future trades before the formal launch of China's stock index futures.



1. Background

Circuit Breaker Mechanism

➤ **Stabilizing market sentiment:**

Giving investors more time to reconsider and evaluate market information, in order to form rational investment decisions and to prevent drastic rise and decline in stock prices caused by panic.

➤ **Promoting the recovery of liquidity:**

Preventing short-term dramatic price movements due to market illiquidity.



1. Background

Background of introducing circuit breaker mechanism

- As an emerging and transitional market, China's capital market is dominated by small and medium retail investors and has a relatively high market volatility.
- Since June 2015, abnormal fluctuations occurred in China's stock market and stock index futures market. The dramatic rises and falls of the stock indices left many retail investors with heavy losses.
- With the guidance of China Securities Regulatory Commission (CSRC), Shenzhen Stock Exchange (SZSE), Shanghai Stock Exchange (SSE) and China Financial Futures Exchange (CFFE) introduced the circuit breaker mechanism to protect investors' interests and promote the long-term sound development of China's capital market.



Content

1. Background

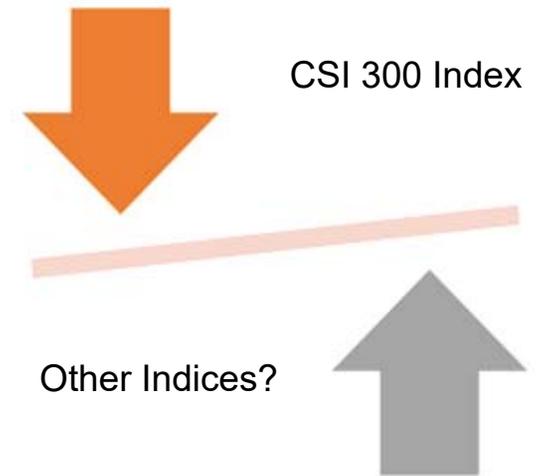
2. Mechanism Design and Global Comparison

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2. Mechanism Design and Global Comparison

Benchmark Index : CSI 300 Index

- Cross-market index is superior to single-market index: Cross-market index better represents the market, as it can reflect the general fluctuations of the A-shares market comprehensively, while single-market index mainly reflects the operating condition of a specific market.
- CSI 300 Index is more representative: Compared with other indices, CSI 300 index has advantages in the coverage of market capitalization, as well as in the number and asset size of products tracking CSI 300 index.

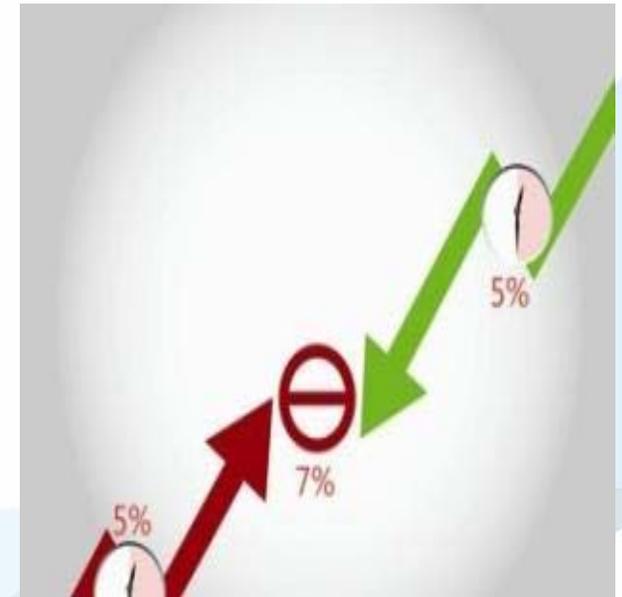


2. Mechanism Design and Global Comparison

The Value of Thresholds :

$\pm 5\%$ and $\pm 7\%$, each threshold can only be reached once at most in intraday trading

- The value of thresholds were put forward by the exchange based on the analysis of historical data. The first threshold was set at 5%, aiming at meeting both needs of providing a cooling-off period and of maintaining normal trading; the second threshold was set at 7%, aiming at preventing against major abnormalities.
- A two-way circuit breaker mechanism is more conducive in curbing excessive trading and controlling market fluctuations. As China's market often presents relatively high two-way volatility, the circuit breaker mechanism is also necessary in a bubble market to calm the market down, and prevent market overreaction towards the fast-rising stock prices.



2. Mechanism Design and Global Comparison

Circuit Breaker Durations :

15-min halt after triggering the 5% threshold; trades will be suspended till the market closes if 5% is reached at or after 14:45, or 7% is reached at any time of the day.

- The previous solicitation reveals that investors generally think that the 30-min halt is too long. The halt was reduced from 30 min to 15 min.
- China's securities markets often experience dramatic volatility during the closing session. The arrangement of halting trading till market close for triggering the 5% threshold at or after 14:45 will help prevent unusual market movement risks during the closing session.
- A 7% rise or fall in CSI 300 Index price often implies drastic market volatility and extreme systematic risk. Therefore, the market needs a cooling-off period to avert market panic from inducing more severe market fluctuations.

2. Mechanism Design and Global Comparison

The Scope of the Circuit Breaker :

stocks and stock-related products, including stock index futures

- Auction trading is suspended for stocks and stock related products.
- Investors can apply non-trading businesses such as new shares issuance, rights issue, and voting. If the circuit breaker continues till 15:00, block trades of relevant securities will not be conducted on the very day.
- Trading of all stock index futures products are suspended by the CFFEX, the trading of treasury bond futures proceeds normally.

2. Mechanism Design and Global Comparison

Other Key Points:

➤ Resumption of trading

- SZSE & SSE: continuous auction trading following the call auction order matching
- CFFEX: call auction order routing will be conducted within 3 minutes before the end of the circuit breaker, after which the call auction order matching will be conducted immediately, and then the continuous auction will be carried out

➤ Special sessions arrangement

- No circuit breaker during the opening call auction
- If the circuit breaker does not last 15 minutes when the morning session ends, the remaining time of trading halts will continue in the afternoon session

2.Mechanism Design and Global Comparison

Circuit Breaker Mechanisms in Other Countries

According to the survey carried out by WFE in 2008, 24 out of 40 stock exchanges in the study have implemented circuit breaker mechanisms.

Country	Benchmark	Triggering Threshold	Trading halt durations(min)
China	CSI 300 Index	± 5%	15
		± 7%	Market Close
US	S&P 500 index	-7%	15
		-13%	15
		-20%	Market Close
Korea	KOSPI Index	-10% & last for 1 min	10
	Future contracts with the largest trading volume	-5% & last for 1 min	5
India	Nifty 50 Index	± 10%	15
		± 15%	15
		± 20%	Market Close

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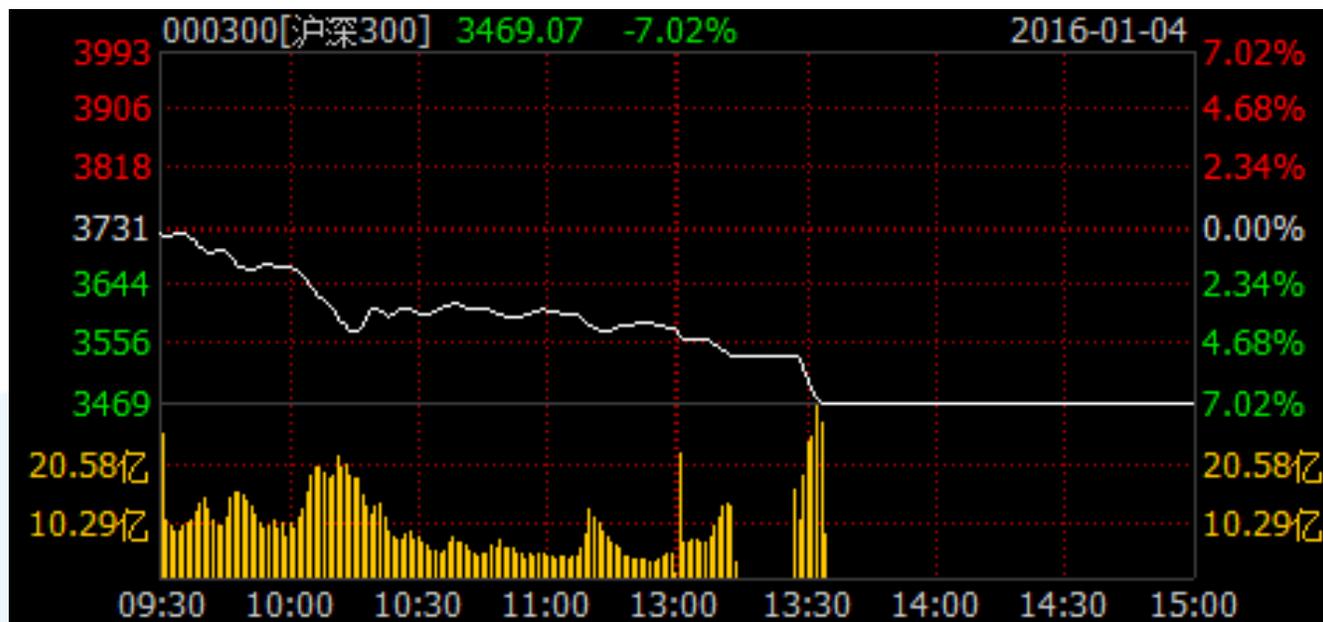
Important Timeline

- From September 7 to 21, 2015: the SZSE, the SSE and the CFFEX solicited public opinions on draft circuit breaker rules.
- On Dec 4, 2015: three exchanges officially published the related provisions.
- From Dec 25 to the official launch: three exchanges conducted related testing.
- On Jan 1, 2016: circuit breaker mechanism came into effect.
- On January 4, 2016 and January 7, 2016: Circuit breaker was triggered twice.
- On January 7, 2016: three exchanges announced to suspend the mechanism since January 8, 2016.

3. Discussion on Implementation

Jan 4: First Triggering

- Shenzhen & Shanghai stock markets declined dramatically in the morning session. At 13:13pm, the continuous decline in CSI 300 Index triggered the 5% threshold. The trading was halted for 15 minutes and was resumed at 13:28pm.
- The decline in CSI 300 Index price triggered the 7% threshold at 13:34pm, thus the market was closed for the whole day.



3. Discussion on Implementation

Jan 7: Second Triggering

- At 9:42 am, trading was suspended for 15 minutes after the CSI 300 index dropped by over 5%.
- The index further declined 2% within 2 minutes after the resumption at 9:57 am, and trading was ceased. It was the shortest full day trading time in the history of China's stock market.



3. Discussion on Implementation

CSRS's Comments on Circuit Breaker Mechanism

- The mechanism was introduced with the goal of providing a cooling-down period for the market to avoid or reduce hasty trading decisions in the case of sharp fluctuations, in order to better protect the interests of investors. It also provides additional time to deal with technological and operational risk.
- The mechanism is not the major reason for the market plunge, but it failed to achieve the anticipated effects. The mechanism in effect accelerated the plunge as some investors decided to sell when the index has drop nearly 5% or 7%.
- Currently, the negative effects of the mechanism are greater than the positive effects. Thus, the CSRC decided to suspend the mechanism to maintain market stability.

3. Discussion on Implementation

Academic Research: Pros

- Price Stabilization Effect: Keeping the stock prices in a relatively narrow range and curb excess speculative trading during high volatility period. It has lower cost to curb over-trading and control market volatility
- Cooling off Effect: Traders will have more time to evaluate the related information, therefore, the mechanism can avoid panic and over-reaction of the market.
- The Wealth Effect: According to welfare economics, Samuelson believes that price stabilization will enhance the welfare of the society.

3. Discussion on Implementation

Academic Research: Cons

- Price Overflow Effect: The trading halts extend the normal fluctuations within one trading day to a much longer period of time. The circuit breaker mechanism can only temporarily restrain price movements but can not change the direction of price movements.
- Delayed Price Discovery Effect: The circuit breaker postpones the speed and quality that price responds to information, which negatively affects the market efficiency.
- Trading Interference Effect: Investors cannot adjust their holding of shares through buying at higher price or selling at lower price during the trading halts, therefore market liquidity is interfered.
- Magnet Effect: When the stock price declines close to the value of thresholds, the trading volume is magnified, so that the existence of thresholds pushes stock price closer to the value of thresholds.

3. Discussion on Implementation

Further Discussion on China's case

- Why does the circuit breaker mechanism not work?
- How can we ensure the effectiveness when implementing a new mechanism?
- How can we avoid the severe fluctuation in China's stock market?

Thank you!