

## The Stop Order

While stop pure market order and stop limit orders are particularly suited to investors who rely on technical analysis for their investment decisions, they are also useful to any investor seeking to limit losses in the markets. For those with access to technical analysis of a security's price history, stop pure market orders provide a valued capability. Sell stop pure market orders can be positioned at lower levels where support might be broken, and buy stop orders can be positioned at upper levels where resistance might be broken. A buy stop pure market order gets the investor into a security at the beginning of a bullish trend.

### Definition

A stop order is an instruction to buy or sell a quantity of shares at the prevailing market price once the instrument has reached a "trigger price" specified by the Client.

The Stop order is inactive and hidden to the other Market Participants until the Trigger Price is reached.

There are two different types of Stop orders:

- **Stop Loss:** once triggered, the Stop Order Type is immediately entered in the order book as a Pure Market order (becomes a Pure Market order);
- **Stop Limit:** once triggered, the Stop Limit Order Type is immediately entered in the order book as a Limit order at a pre-defined price (Limit price specified within the order at the Stop Limit order entry)

→ The trigger price is mandatory for both Stop order types and is checked at the order entry. It must be strictly greater than the Last Traded Price (or Adjusted Closing Price if the instrument has not traded yet) for buy Stop orders and strictly less than the last traded price (or Adjusted Closing Price if the instrument has not traded yet) for sell Stop orders.

→ For Stop Limit orders, the Limit price is mandatory and checked at the order entry; it must be greater than or equal to the Trigger Price for buy Stop Limit orders and less than or equal to the Trigger Price for sell Stop Limit orders.

### Admissibility

Stop orders are accepted during call and trading session phases, whether the securities concerned are traded continuously or by call auction.

They are rejected in the Trading At Last phase.

### Features

A Stop order is compatible with the following validity

- Day
- Good Till Date
- Good Till Cancelled
- Good Till Time

This validity type indicated in the Stop order entry message applies also to the validity of the order once triggered.

### Quantity combination of the Stop orders

Qty conditions	Trading Phase	
	Call Phase	Continuous Trading phase
Minimum Quantity	No	No
Disclosed Quantity	No	No

**a. Processing during Call phase**

In call phase, Stop orders are cumulated in the orderbook without any dissemination to the Market. **They don't participate to the Indicative Matching Price determination.** They are processed by the engine during the auction phase according the trading algorithm that is compliance with the trading phase that follows the auction.

This means that stop orders will be processed in a different way depending on whether the class is traded by auction or on a continuous mode.

**b. Processing at the Opening**

The auction process is separated in two steps. It first deals with all the orders of the orderbook except stop orders, and after having matched them, it then deals with stop orders.

**Special case:**

In case the auction is followed by a Trading At Last Phase, stop orders are triggered and kept hidden until the end of this phase.

As soon as the Trading At Last phase is over, triggered stop orders are disclosed and inserted as normal orders (limit or Market orders) in the orderbook.

**c. Processing in Continuous Trading**

Stop orders entered during continuous trading or not executed after the auction are triggered as soon as the last traded price crosses their triggering price.

Stop orders are triggered according the triggering price = /timestamp priority.

If a same order can match with several opposite orders, giving rise to different trade prices, stop orders may potentially be triggered on both sides at each trade: they are all triggered, queued and executed step by step once the matching of the previous aggressive order is over.

**d. Processing in Trading At Last**

A stop order entry is rejected in Trading At Last phase. If there any triggered stop orders left after the auction, the latter are temporarily queued until the end of the Trading At Last. At this moment, they are disseminated and inserted in the orderbook.

A stop order entry is rejected in Trading At Last phase.

## Examples

### Example 1 - In continuous trading phase

Last Traded Price 100

(stop orders in the orderbook are highlighted in pink)

				IMP					
Broker	OrderId n°	Quantity	Price	Trigger price	Trigger price	Price	Quantity	OrderId n°	Brok
A	5	10	94			95	50	1	B
B	6	10	94			100	30	2	D
A	7	5	93			101	10	3	B
						101	10	4	B
						102	15	12	D
B	8	10	101	101	95	94	10	9	A
C	10	45	102	101	95	93	20	11	D

Broker E enters an order (n°13) to buy 85 shares at 101€.

The order matches with sell orders n°1,2, and 3, the tradebook is then:

Buying broker	Selling broker	Quantity	Price
E	B	50	95
E	D	30	100
E	B	5	101

At this moment, the orderbook is temporarily:

Broker	OrderId n°	Quantity	Price	Trigger price	Trigger price	Price	Quantity	OrderId n°	Brok
A	5	10	94			101	5	3	B
B	6	10	94			101	10	4	B
A	7	5	93			102	15	12	D
B	8	10	101	101	95	94	10	9	A
C	10	45	102	101	95	93	20	11	D

(the stop orders are in italic, meaning they are triggered and queued).

During the executions of the order n°13, stop orders are triggered step by step and queued as follows:

- stop order n°9 is triggered first, then
- stop order n°11 is triggered, then
- stop order n°8 is triggered, then
- stop order n°10 is triggered.

At this moment, those triggered orders are processed one after the others with remaining orders that are in the orderbook above.

- stop order n°9 is processed first and matches with order n°5 at 94€
- stop order n°11 is processed afterwards and matches with order n°6 at 94€ and 7 at 93€, the stop order n°11 has 5 shares left
- stop order n°8 is then processed and matches with the remaining sell order stop n°11 at 93€ and with order n°3 at 101€
- stop order n°10 is processed and matches with the sell order n°4 at 101€ and the sell order n°12 at 102€.

At the end, the tradebook and the orderbook are:

Buying broker	Selling broker	Quantity	Price
E	B	50	95
E	D	30	100
E	B	5	101
A	A	10	94
D	B	10	94
D	A	5	93
B	D	5	93
B	B	5	101
C	B	10	101
C	D	15	102

Broker	Orderld n°	Quantity	Price	Trigger price	Trigger price	Price	Quantity	Orderld n°	Broker
C	10	20	102						

**Example 2 - In continuous trading phase**

Last Traded Price 100  
 (stop orders in the orderbook are highlighted in pink)

										IMP	--
Broker	OrderId n°	Quantity	Price	Trigger price	Trigger price	Price	Quantity	OrderId n°	Broker		
A	5	10	94			95	50	1	B		
B	6	10	94			100	30	2	D		
A	7	5	93			101	10	3	B		
						101	10	4	B		
						102	15	14	D		
B	8	10	101	101	95	94	10	9	A		
C	10	45	102	101	95	93	20	11	D		
					94	94	15	12	B		
					94	93	10	13	B		

Broker E enters an order (n°13) to buy 85 shares at 101€.  
 The order matches with sell orders n° 1,2, and 3, the tradebook is then:

Buying broker	Selling broker	Quantity	Price
E	B	50	95
E	D	30	100
E	B	5	101

At this step the process, the orderbook is temporarily:

Broker	OrderId n°	Quantity	Price	Trigger price	Trigger price	Price	Quantity	OrderId n°	Broker
A	5	10	94			101	5	3	B
B	6	10	94			101	10	4	B
A	7	5	93			102	15	14	D
B	8	10	101	101	95	94	10	9	A
C	10	45	102	101	95	93	20	11	D
					94	94	15	12	B
					94	93	10	13	B

During the executions of the order n°13, stop orders (in italic in the table above) are triggered step by step and queued. (Stop orders in italic are triggered, stop orders n°12 and 13 are not concerned)

So:

- stop order n°9 is triggered first, then
- stop order n°11 is triggered, then
- stop order n°8 is triggered, then
- stop orders n°10 is triggered.

At this moment, those triggered orders are processed one after the others with remaining orders that are in the orderbook above.

- stop order n°9 is processed first and matches with order n°5 at 94€
- ➔ **at this step, stop orders n°12 and n°13 are triggered and queued.**
- stop order n°11 is processed afterwards and matches with order n°6 at 94€ and 7 at 93€, the stop order n°11 has 5 shares left
- stop order n°8 is then processed and matches with the remaining sell order stop n°11 at 93€ and with order n°3 at 101€
- stop order n°10 is processed and matches with the sell order n°4 at 101€ and the sell order n°12 at 102€.

At the end of this step, the tradebook is:

Buying broker	Selling broker	Quantity	Price
E	B	50	95
E	D	30	100
E	B	5	101
A	A	10	94
D	B	10	94
D	A	5	93
B	D	5	93
B	B	5	101
C	B	10	101
C	D	15	102
B	C	15	102
B	C	5	102

And the orderbook is temporarily as follows:

Broker	Orderld n°	Quantity	Price	Trigger price	Trigger price	Price	Quantity	Orderld n°	Broker
C	10	20	102						
					94	94	15	12	B
					94	93	10	13	B

The stop orders n°12 and 13, previously triggered during the execution of the stop order n°9, are queued and will then be processed:

- stop order n°12 matches with the buy order n°10 at 102€
- stop order n°13 matches with the buy order n°10 at 102€

At the end, the tradebook and orderbook are:

Broker	Orderld n°	Quantity	Price	Trigger price	Trigger price	Price	Quantity	Orderld n°	Broker
						93	5	13	B