Order Based Surveillance Measure - Persistent Noise Creators (PNC)

Frequently Asked Questions (FAQs)

1) What is the purpose for introduction of Order Based Surveillance Measure - Persistent Noise Creators?

Over the years, Exchanges and SEBI have issued various guidelines to regulate Algo based trading in the securities market. One metric to gauge the algo related activity of a trading member is the "Order to Trade Ratio (OTR)" which was implemented in 2012. Further, tagging of orders with their corresponding algo id has been made mandatory in the year 2019. Proactive surveillance measures on possible algo based manipulations such as "Surveillance measure on Order Spoofing" was implemented in May 2019.

The excessive order messages may be attributed as "noise" in the market with prima facie no intention to execute trade by modifying or cancelling them. This results in an increase in the overall "Information Asymmetry" for other algos / players in the market.

2) What are the criteria for shortlisting clients under Persistent Noise Creators and what are the applicable surveillance actions on the shortlisted Clients?

The surveillance measure shall be applicable on the daily trading activity at the Client / Proprietary account level in a security / contract which are exceeding following parameters:

Criteria:

Noise 1:

- $\dfrac{\text{Order modifications by the Client / Proprietary account leading to maintained / deferred / lowering of order execution priority in a contract/security}}{\text{Total Modifications of the Market in respective contract/security}} *100$

AND

- **OTR (in value terms)**:
$\dfrac{\text{Value of all Orders Entered / Modified / Cancelled in a contract/security by a Client / Proprietary account}}{\text{Value of Trades in a contract/security by a Client / Proprietary account}}$

AND

- Order Modifications by the Client / Proprietary account in a contract/security

Noise 2:

- Order modifications by the Client / Proprietary account leading to maintained / deferred /lowering of order execution priority in a contract/security

$$\frac{\text{Order modifications by the Client / Proprietary account leading to maintained / deferred /lowering of order execution priority in a contract/security}}{\text{Total Modifications of the Client / Proprietary account in respective contract/security}} * 100$$

AND

- **OTR(in value terms)**:

$$\frac{\text{Value of all Orders Entered / Modified / Cancelled in a contract/security by a Client / Proprietary account}}{\text{Value of Trades in a contract/security by a Client / Proprietary account}}$$

AND

- **Order Modifications by the Client / Proprietary account in a contract/security**

Note: The threshold limits applicable to the aforesaid parameters has not been disclosed in the public domain.

The instances identified based on either of the aforesaid conditions (Noise 1 or Noise 2) shall be considered as "1 instance count". Kindly note that whenever both Noise 1 and Noise 2 criteria gets satisfied for a Client / Proprietary account in a security/contract, the same would be considered as single instance count and not multiple instances.

(Refer Exchange circular – NSE/SURV/52992 dated July 15, 2022 in continuation to NSE/SURV/47814 dated March 26, 2021)

Trading members are required to have systems and alerts in place for detecting high modifications in orders in a symbol/contract as part of their surveillance obligation.

The penal action based on count of instances over a period of **rolling 20 trading days** is as under:

1. Trading disablement of such a Client / Proprietary account for a time period of first 15 minutes of trading (in the normal continuous market) at PAN level across the Exchanges in the Equity and Equity Derivatives segments simultaneously provided number of instances identified as above exceed 99 on a rolling 20 trading days basis. The disablement shall be carried out on the next trading day.

   Members may kindly note that the instance count of 99 is separately computed for cash, futures and options. While the instance count is separate for each segment, disablement will be applicable at PAN level across the Exchanges in the Equity and Equity Derivatives segments simultaneously on breaching count of 99 in any segment.

2. Any additional instance of repetitive violation on consecutive trading days by a Client / Proprietary account (say N times) on a rolling 20 trading days basis will lead to trading disablement for a period of 'N' instances X 15 mins, subject to a Maximum Disablement of 2 Hours (i.e. N < = 8).

The count of instances shall be considered on a rolling 20 trading days basis. The PAN shall continue to remain disabled on an incremental basis for the specified duration until the aggregate count of instances does not come to 99 based on rolling 20 trading days. Kindly refer detailed example below.

Day	Count of Instances on T day	Count of instances on 20 rolling days	Applicable trading disablement period effective T+1 day(Mins)
1	1	1	N.A
2	5	6	N.A
3	7	13	N.A
4	0	13	N.A
5	0	13	N.A
6	0	13	N.A
7	0	13	N.A
8	89	102	15
9	0	102	30
10	0	102	45
11	0	102	60
12	0	102	75
13	0	102	90
14	0	102	105
15	0	102	120
16	0	102	120
17	0	102	120
18	0	102	120
19	0	102	120
20	0	102	120
21	0	101	120
22	0	96	N.A
23	0	89	N.A
24	0	89	N.A
25	3	92	N.A
26	0	92	N.A
27	2	94	N.A
28	0	5	N.A
29	0	5	N.A
30	0	5	N.A

3) When will the revised Surveillance measure come into force?

The aforesaid surveillance measure has come into effect from April 05, 2021. The revised criteria as per circular no 52992 dated July 15, 2022 shall come into force w.e.f 26th August,2022. Further, instances as per the existing as well as revised criteria shall be taken into account for the computation of cumulative instances for a period of rolling 20 trading days, wherever applicable.

>**Example:** For 26th August 2022, the instance count for past 20 rolling days will be aggregate of instance count for period 28th July 2022 to 25th August 2022 (computed as per old thresholds) and instance count of 26th August 2022 (computed as per revised thresholds).

Note:
- *The surveillance measure shall be independent to the extant framework of High Order to Trade Ratio (OTR).*
- *The extant OTR framework as per Exchange circular - NSE/SURV/45016 dated July 14, 2020 shall continue to be in force.*

4) What types of orders shall be considered for computation?

All Algo and Non Algo orders shall be considered for computation. All market orders and spread orders shall be excluded.

An Immediate or Cancel (IOC) order shall be included at the time of order entry but order cancellation shall be excluded in the computation of OTR.

5) In which segments will the surveillance measure be applicable?

The said surveillance measure shall be applicable in the Equity and Equity Derivatives segments.

6) Is the client level disablement applicable to all segments?

Trading disablement of the shortlisted Client / Proprietary account for a time period of first 15 minutes / specified duration of trading across the Exchanges in the Equity and Equity Derivatives segments.

Please find below, an illustration on various scenarios of client level disablement.

- ✦ Applicable trading disablement period: 15 Minutes Equity
  segment: 09:00 a.m. to 09:30 a.m.
      Equity Derivatives segment: 09:15 a.m. to 09:30 a.m.

- ✦ Applicable trading disablement period: 45 Minutes Equity
  segment: 09:00 a.m. to 10:00 a.m.
      Equity Derivatives segment: 09:15 a.m. to 10:00 a.m.

*Note: Trading shall be permitted in segments other than Equity and Equity Derivatives segments as applicable. The first trade shall be allowed after expiry of N * 15 minutes (as applicable as per point 2(b)above) in the normal (continuous) market of the Equity and Equity Derivatives segments.*

7) Will the client be allowed to square off the open positions during the disablement period?

The PAN shall be completely disabled for the specified duration and shall not be allowed to square off the open positions during the disablement period.

8) For how many days shall the PAN remain disabled?

The count of instances shall be considered on a rolling 20 trading days basis. The PAN shall continue to remain disabled on an incremental basis for the specified duration until the aggregate count of instances does not come to 99 based on rolling 20 trading days.

9) In case the count of instances reduces to 99 based on 20 rolling days and after a gap of few days the same client has instances more than 99, then for how long the client will be disabled?

In the above case the clients first disablement shall be for 15 mins, as illustrated in Point no. 6 since the instance of repetitive violation on consecutive trading days is not satisfied at the Exchange level.

10) Will the disablement be carried out across Exchanges?

The disablement of shortlisted clients shall be implemented across Exchanges in equity and equity derivatives segment and the duration of disablement shall be uniform.

11) Where do I get the details of client shortlisted under the Surveillance measure?

Details of shortlisted clients shall be downloaded to Trading Member at EOD whenever a client gets shortlisted for "1 instance count" as defined under Point no. 2.

The details of files are as under:
Persistent Noise Creators_Client Level Segment

Member Code	Client Code	Client PAN	Total Instances - Previous day	Total Instances up to current day

Trading members are also hereby informed that the above data shall be made available on daily basis (in case of any instance) in the following folder on the extranet for Equity and Equity Derivatives <Member Folder>/Surveillance/Dnld.

12) How will the market participants be made aware of the Client level disablement by the Exchanges?

Trading Members shall be intimated details w.r.t. client and duration of disablement vide e-mail at EOD prior to disablement.

13) Will the circular be applicable to market makers?
This circular is not applicable to market makers officially registered with the exchange only for respective symbols.

14) Is the circular applicable for order activity in pre-open segment?
Yes, the circular is applicable for order activity in pre-open segment for cash market.

15) If a Trading Member Code + Client Code combination has 10 instances in cash segment, 40 in futures and 40 in options. Will it be considered as 90?
No, the instance count is separate for cash segment, futures segment and options segment. The same will not be aggregated as 90.

16) Which are the scenarios considered in lowered/deferred/maintained priority?
The following scenarios are considered:

Modification Scenario	Priority
Buy Modification Price Same Quantity/Volume Increase	Lowered/Deferred
Buy Modification Price Decrease Quantity/Volume Increase/Decrease/Same	Lowered/Deferred
Sell Modification Price Same Quantity/Volume Increase	Lowered/Deferred
Sell Modification Price Increase Quantity/Volume Increase/Decrease/Same	Lowered/Deferred
Buy Modification Price Same Quantity/Volume Same	Maintained

Sell Modification Price Same Quantity/Volume Same	Maintained
Buy Modification Price Same Quantity/Volume Decreased	Maintained
Sell Modification Price Same Quantity/Volume Decreased	Maintained

In case of any further queries, you may write to us at surveillance@nse.co.in or call on +91-2226598129 / 8166 or +91-44-6630 9949 / 9993.

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