

Trends in High-Speed Trading

June 2023



Financial Services Agency

Terms and Data in the Document

[Terms]

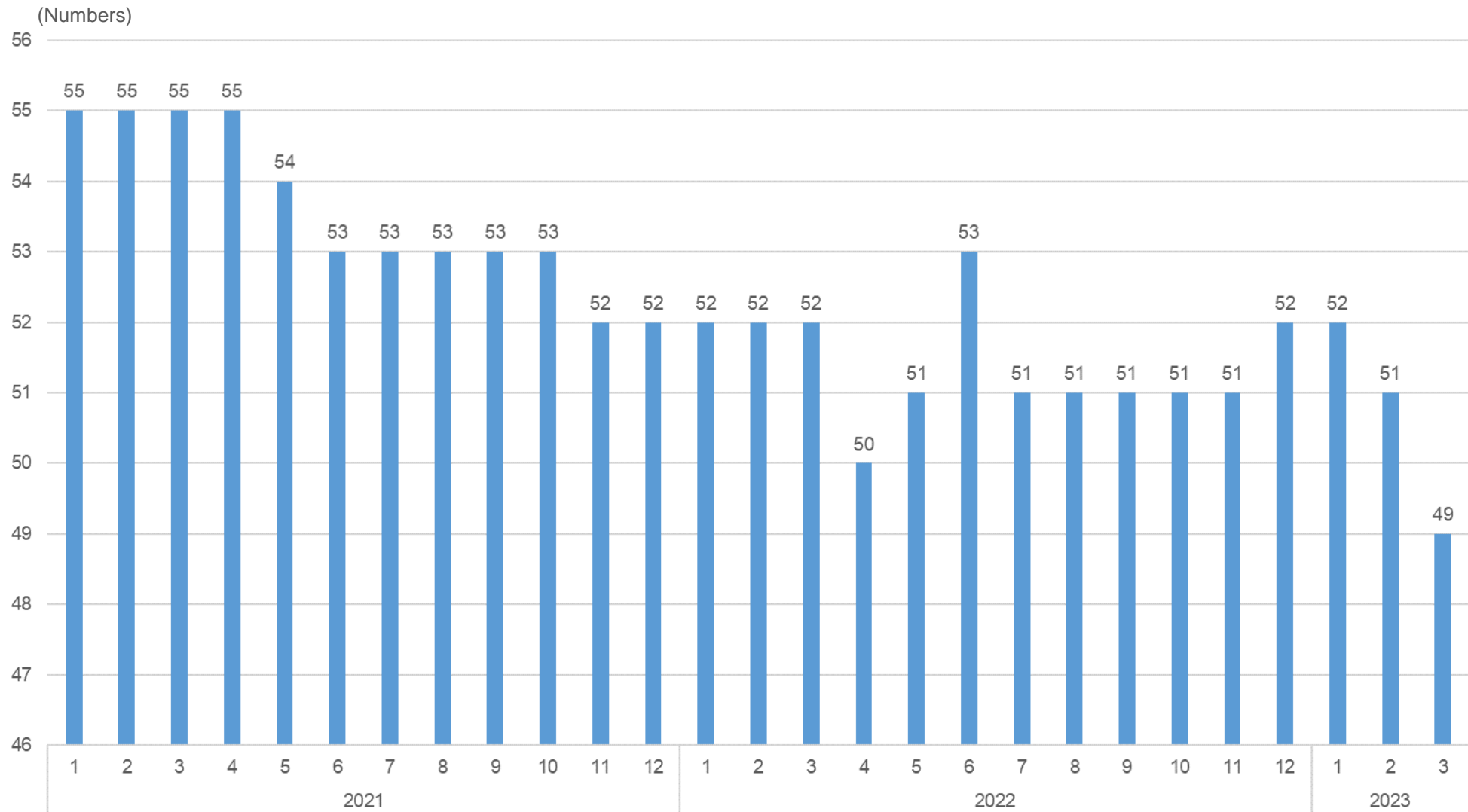
- High-Speed Trading: Acts specified by Article 2, paragraph (41) of the Financial Instruments and Exchange Act.
- High-Speed Traders: a person specified by Article 2, paragraph (42) of the Financial Instruments and Exchange Act or a financial instruments business operator who engages in the high-speed trading listed in Article 29-2, paragraph (1), item (vii) of the Financial Instruments and Exchange Act.

[Data]

- Prepared by the Financial Services Agency based on data from the Tokyo Stock Exchange and Osaka Exchange.
- Extracted from all listed stocks on the Tokyo Stock Exchange (4,255 stocks as of the end of June 2023) and Osaka Exchange (42 products as of end of June 2023, all contract months, Day Session and Night Session).
- The figures for transactions by High-Speed Traders in the materials are the aggregate figures for High-Speed Trading by High-Speed Traders.
- Numbers are rounded down to the indicated units, and ratios are rounded off, in principle.

Number of Registered High-Speed Traders

(Figure) Changes in the number of registered High-Speed Traders

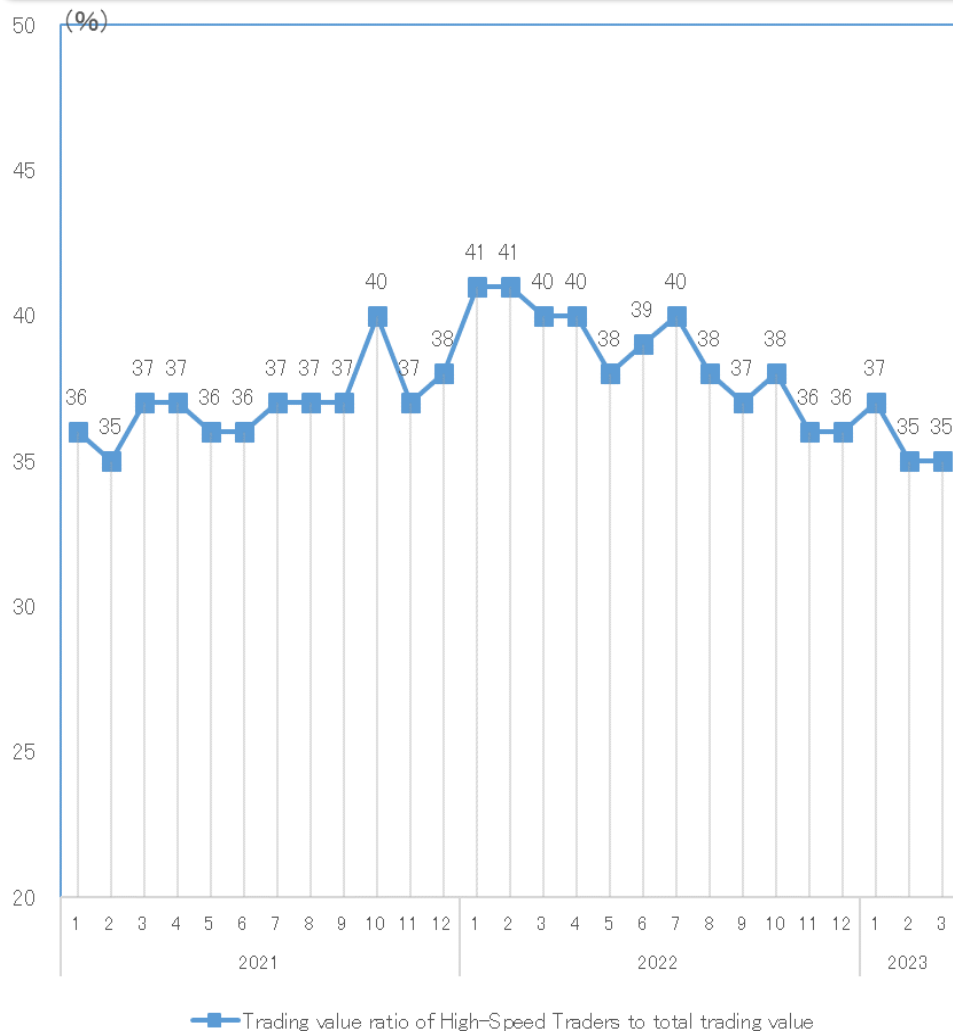


(1) The number of registered High-Speed Traders is as of the end of each month.
(2) Only persons specified in Article 2, paragraph (42) of the Financial Instruments and Exchange Act are covered; i.e., financial instruments business operators who engage in the High-Speed Trading listed in Article 29-2, paragraph (1), item (vii) of the Financial Instruments and Exchange Act are not covered.

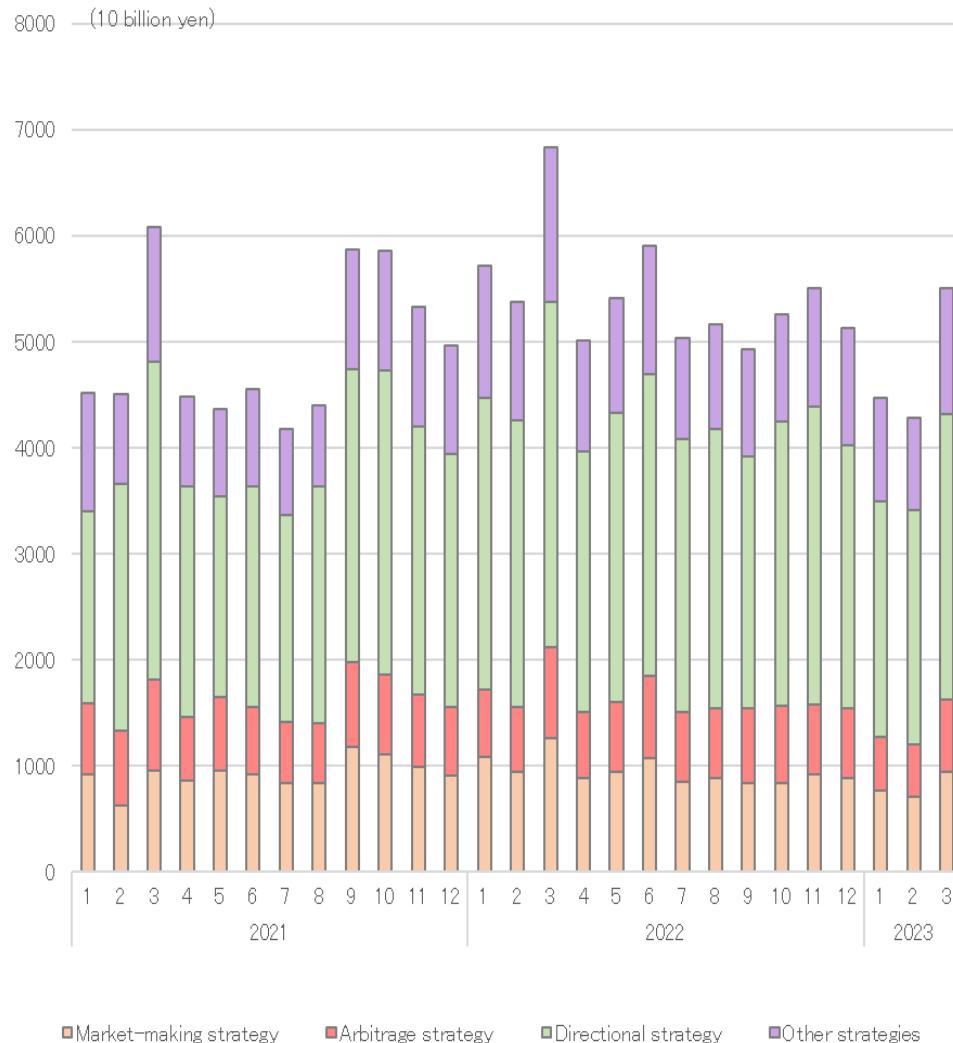
1. TokyoStockExchange listed Stocks

1-1. Trading Value Ratio and Trading Value of High-Speed Traders

(Figure 1-1-1) Changes in trading value ratio of High-Speed Traders to total trading value¹²



(Figure 1-1-2) Changes in trading value of High-Speed Traders³



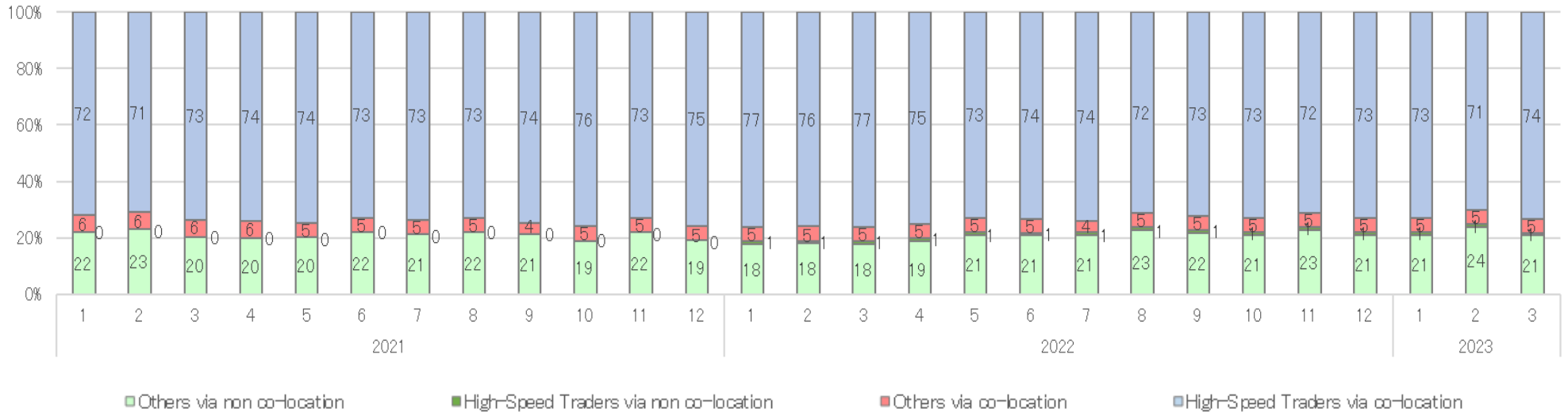
(1) The monthly total of the selling price and the buying price.

(2) Calculation of the trading value ratio: the monthly trading value of High-Speed Traders / the monthly total trading value.

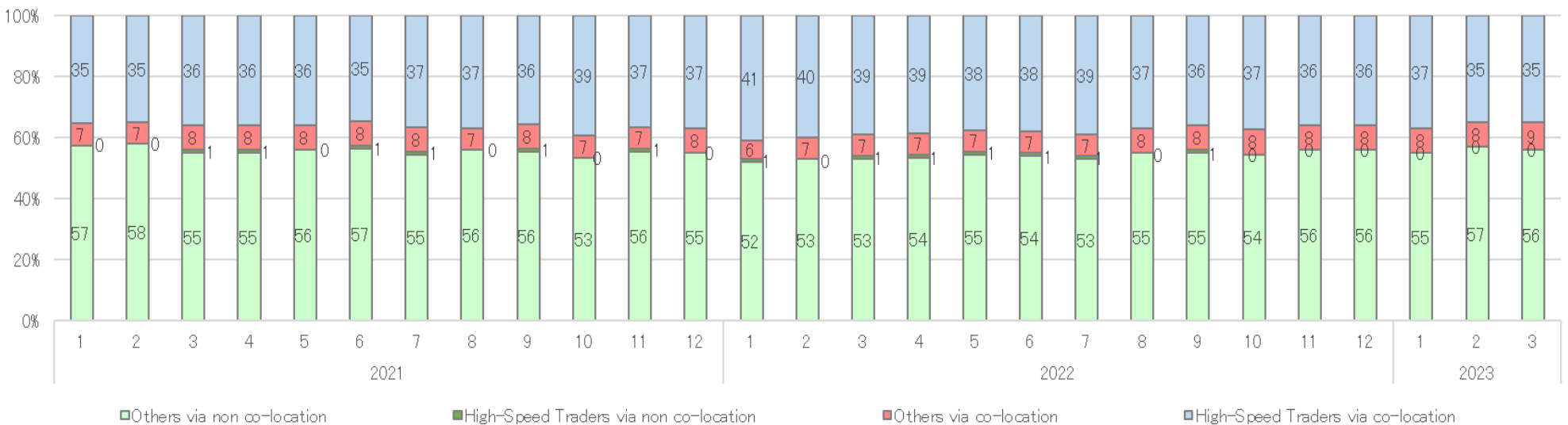
(3) The definition of trading strategies is based on the Comprehensive Guidelines for Supervision of Financial Instruments Business Operators, etc. (Supplementary Guidelines): Guidelines for Supervision of High-Speed Traders III-3-1-1(2)(i).

1-2. Ratio of Orders and of Trading Value by Order Server Location and Trading Entity

(Figure 1-2-1) Ratio of orders by order server location and trading entity to total orders¹



(Figure 1-2-2) Ratio of trading value by order server location and trading entity to total trading value²



(1) The monthly total of new orders, amended orders, and cancelled orders.

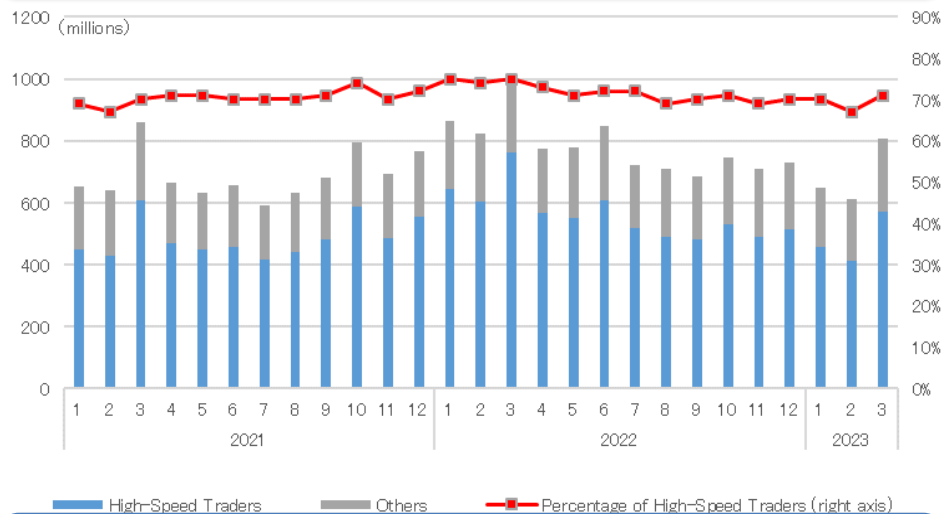
(2) The monthly total of the selling price and the buying price.

(3) Co-location is the installation of participant servers in close proximity to the trading system of an exchange.

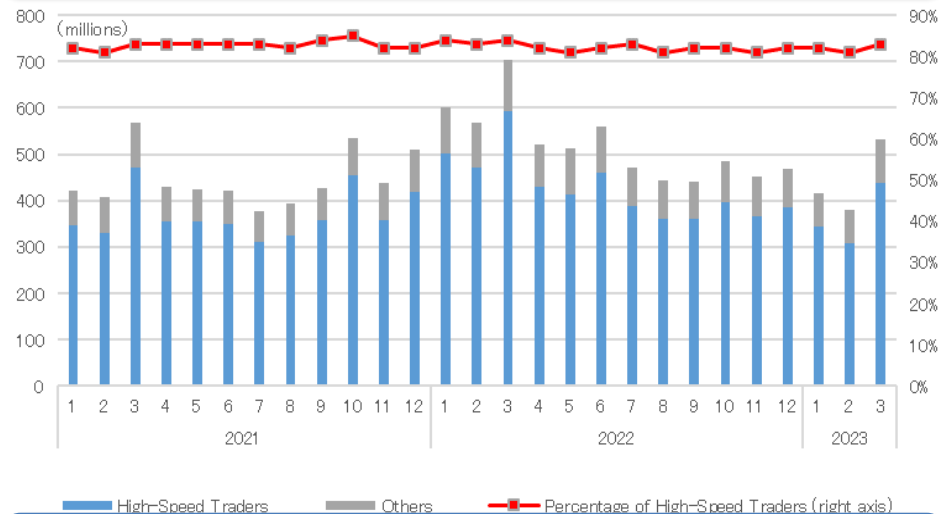
1-3. Transactions by High-Speed Traders:

(1) New Orders, Cancelled Orders, Amended Orders and Executed Orders

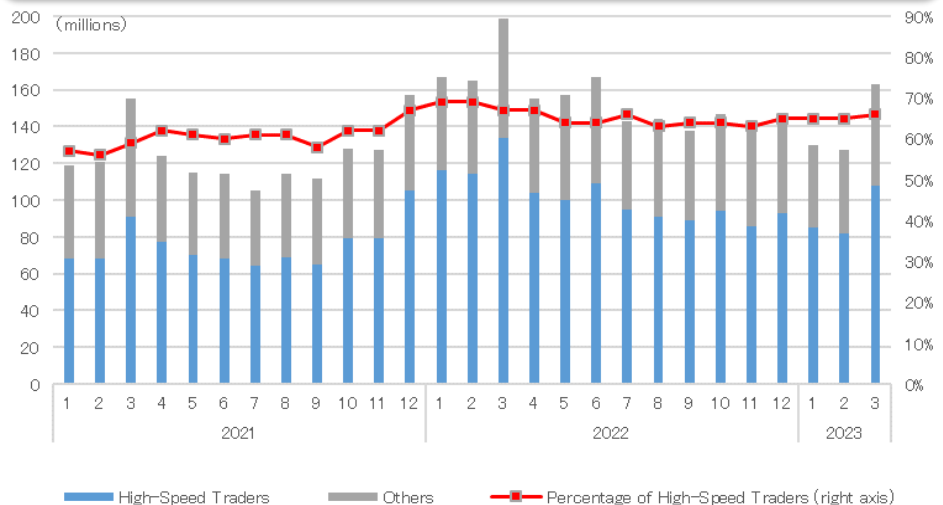
(Figure 1-3-1) Number of new orders by trading entity and ratio of new orders by High-Speed Traders to total new orders



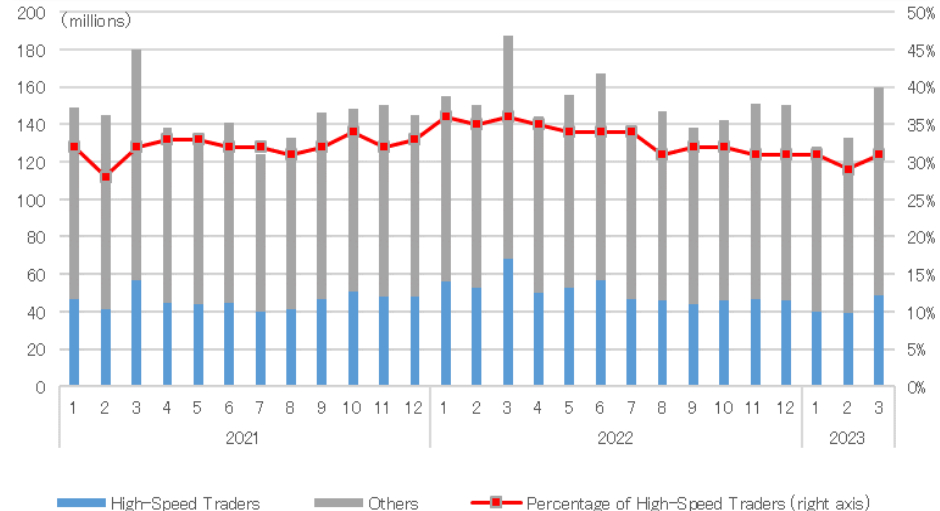
(Figure 1-3-2) Number of cancelled orders by trading entity and ratio of cancelled orders by High-Speed Traders to total cancelled orders



(Figure 1-3-3) Number of amended orders by trading entity and ratio of amended orders by High-Speed Traders to total amended orders



(Figure 1-3-4) Number of executed orders by trading entity and ratio of executed orders by High-Speed Traders to total executed orders

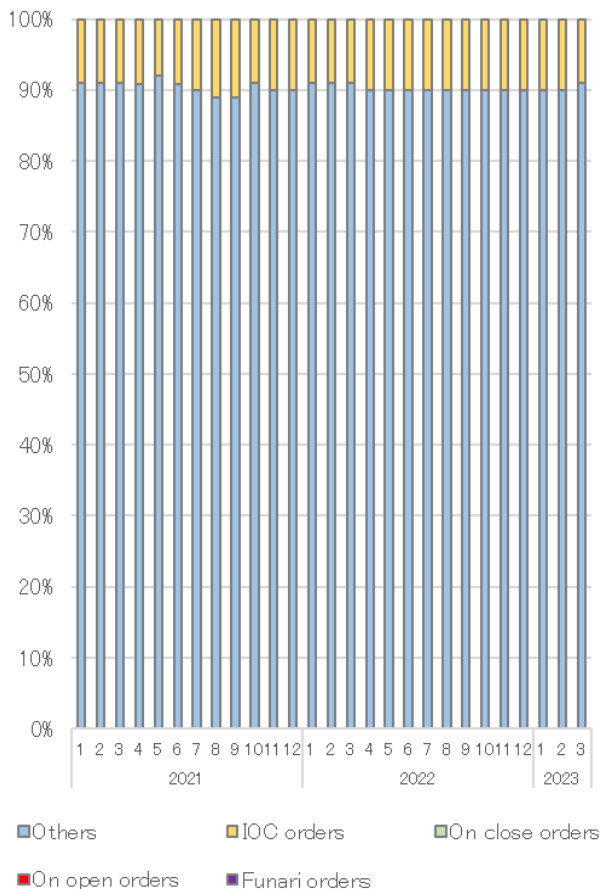


(1) Calculation of the ratio: the monthly total of new orders (cancelled orders, amended orders or executed orders) by High-Speed Traders / the monthly total of new orders (cancelled orders, amended orders or executed orders) by all participants.

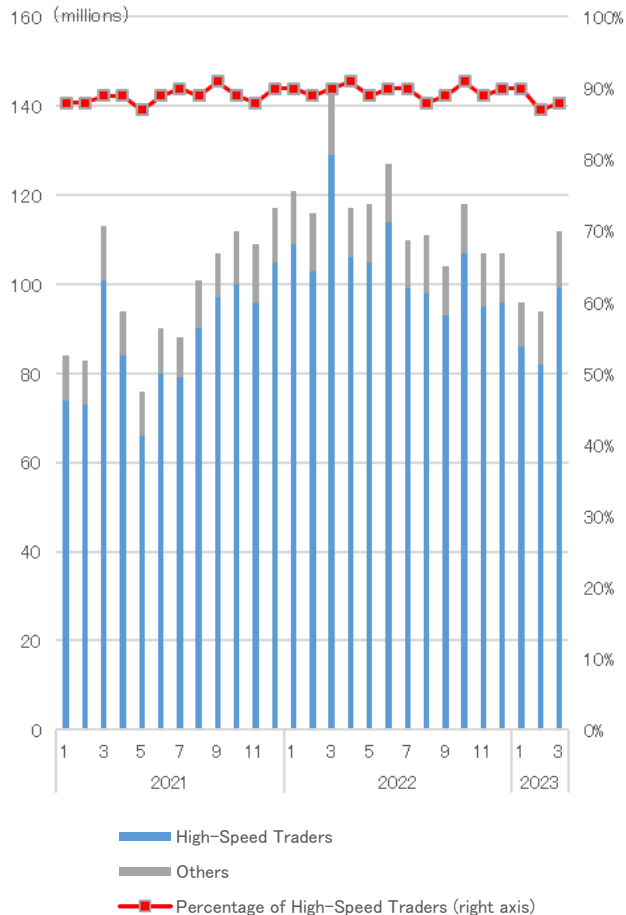
1-3. Transactions by High-Speed Traders:

(2) Conditional Orders (including IOC Orders¹) and Market Orders

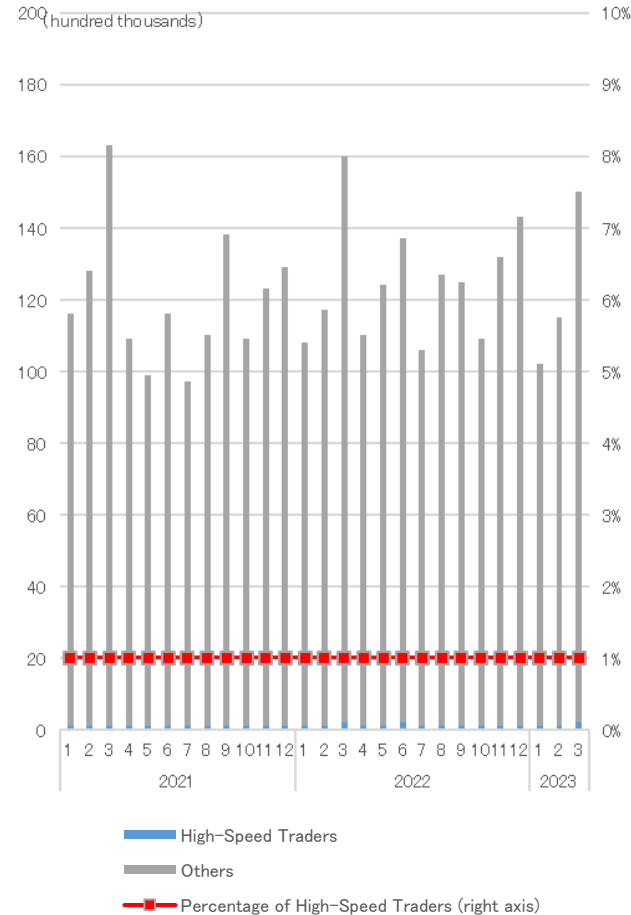
(Figure 1-3-5) Ratio of each type of conditional order to total orders by High-Speed Traders²



(Figure 1-3-6) Number of IOC orders by trading entity and ratio of IOC orders by High-Speed Traders to total IOC orders



(Figure 1-3-7) Number of market orders by trading entity and ratio of market orders by High-Speed Traders to total market orders

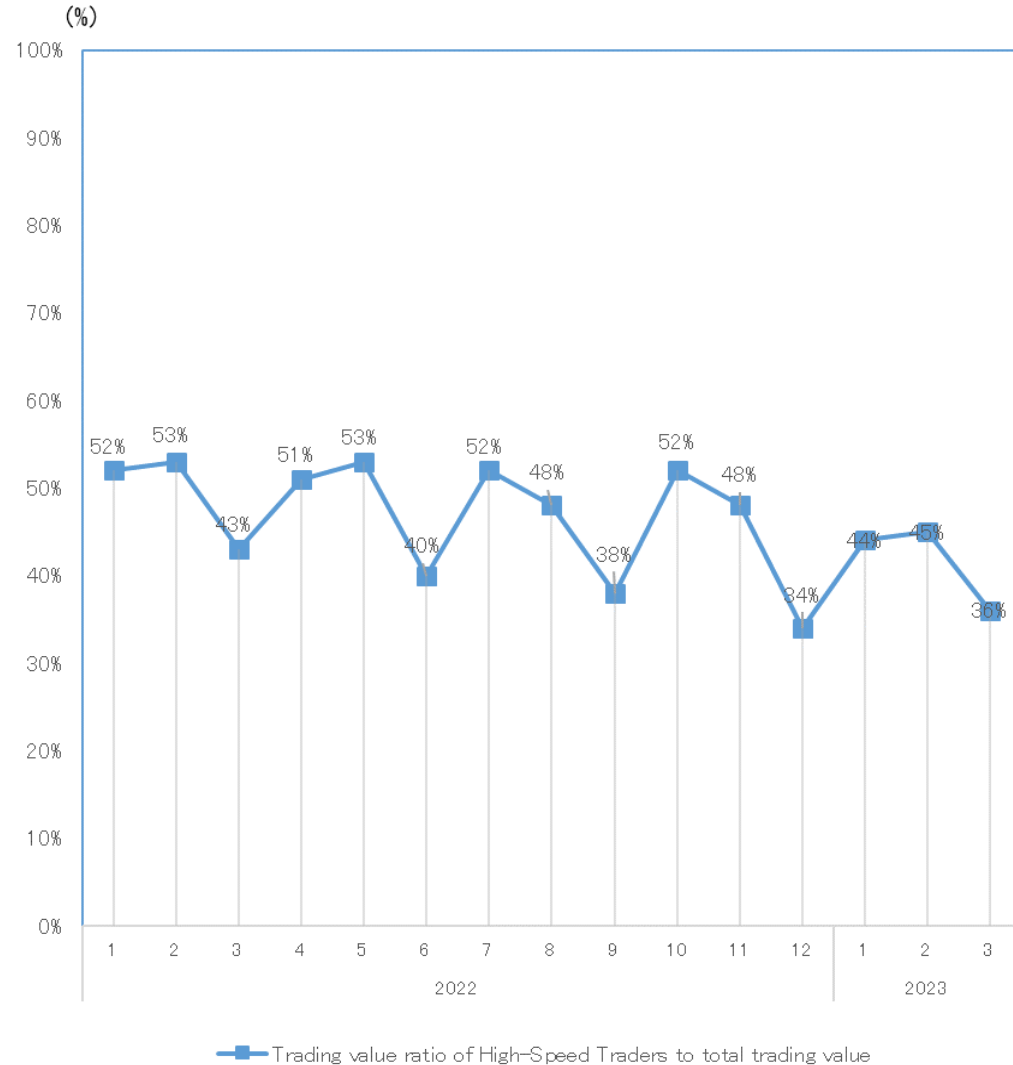


- (1) Immediate Or Cancel orders. A conditional order that immediately executes part or all of its quantity at a specified price or a more favorable price and forfeits the order quantity that was not executed.
- (2) Conditional orders refer to On open orders, On close orders, IOC orders and Funari orders.
- (3) Calculation of the ratio in Figure 4-5: the monthly number of On open orders (On close orders, IOC orders, Funari orders or others) by High-Speed Traders / the monthly total of conditional orders by High-Speed Traders.
- (4) Calculation of the ratio in Figure 4-6: the monthly total of IOC orders by High-Speed Traders / the monthly total of IOC orders by all participants.
- (5) Calculation of the ratio in Figure 4-7: the monthly total of market orders by High-Speed Traders / the monthly total of market orders by all participants.

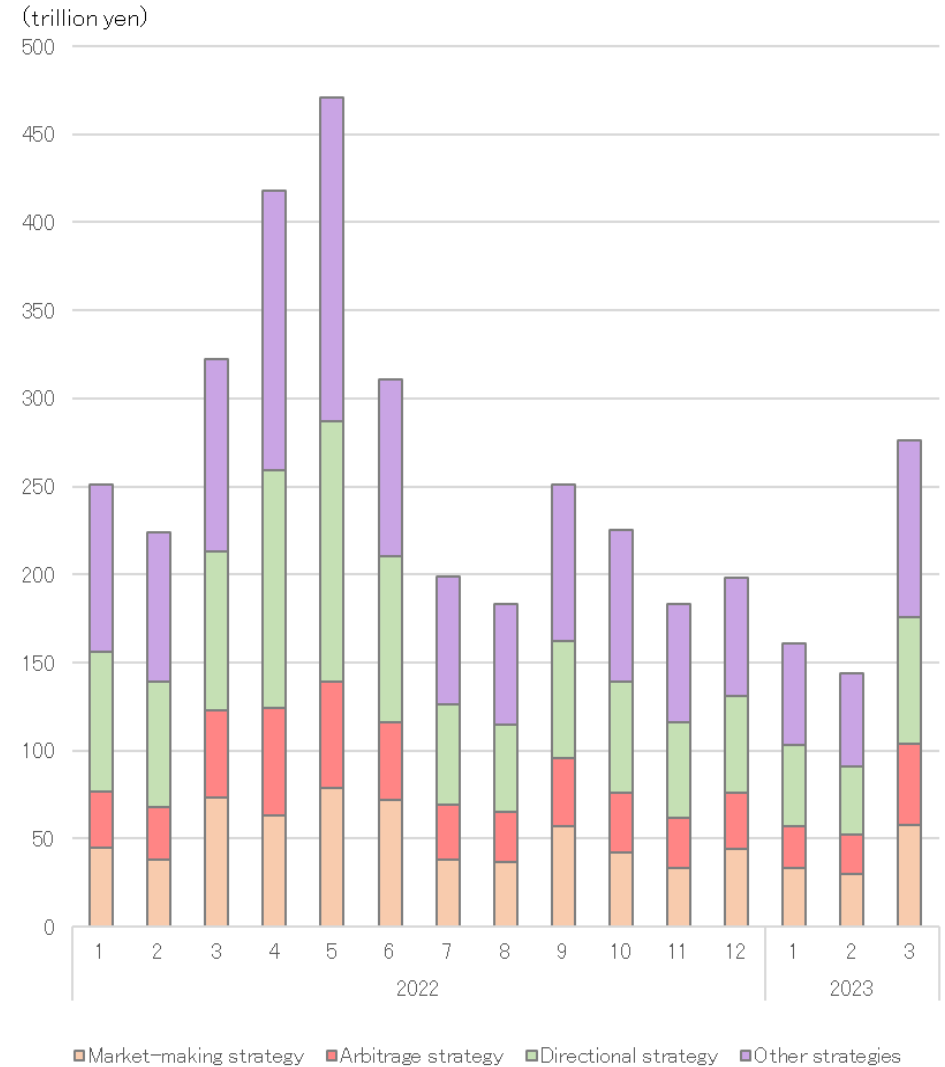
2. Osaka Exchange listed Products (Futures/Options)

2-1. Trading Value Ratio and Trading Value of High-Speed Traders

(Figure 2-1-1) Changes in trading value ratio of High-Speed Traders to total trading value¹²



(Figure 2-1-2) Changes in trading value of High-Speed Traders³



(1) The monthly total of the selling price and the buying price.

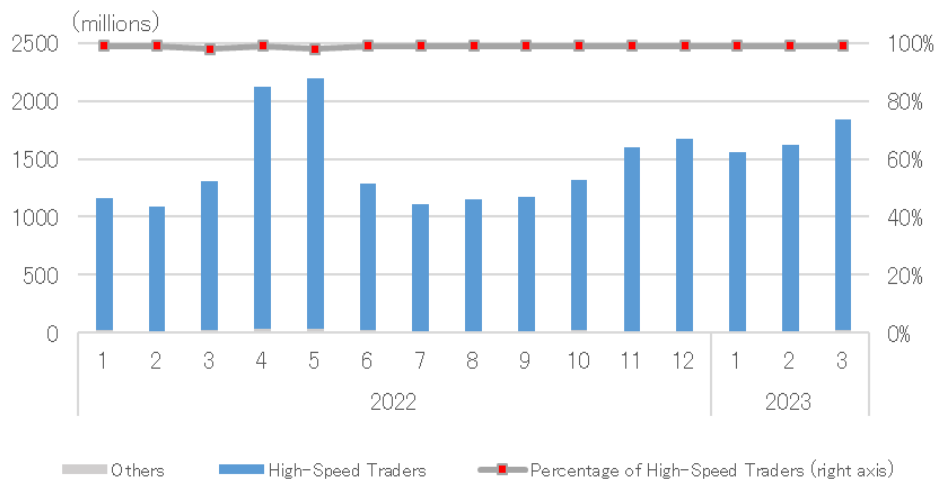
(2) Calculation of the trading value ratio: the monthly trading value of High-Speed Traders / the monthly total trading value.

(3) The definition of trading strategies is based on the Comprehensive Guidelines for Supervision of Financial Instruments Business Operators, etc. (Supplementary Guidelines): Guidelines for Supervision of High-Speed Traders III-3-1-1(2)(i).

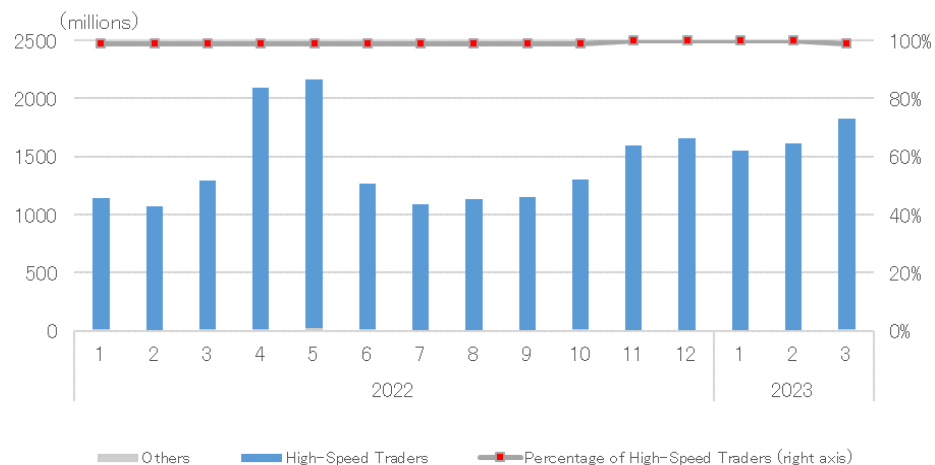
2-2. Transactions by High-Speed Traders:

(1) New Orders, Cancelled Orders, Amended Orders and Executed Orders

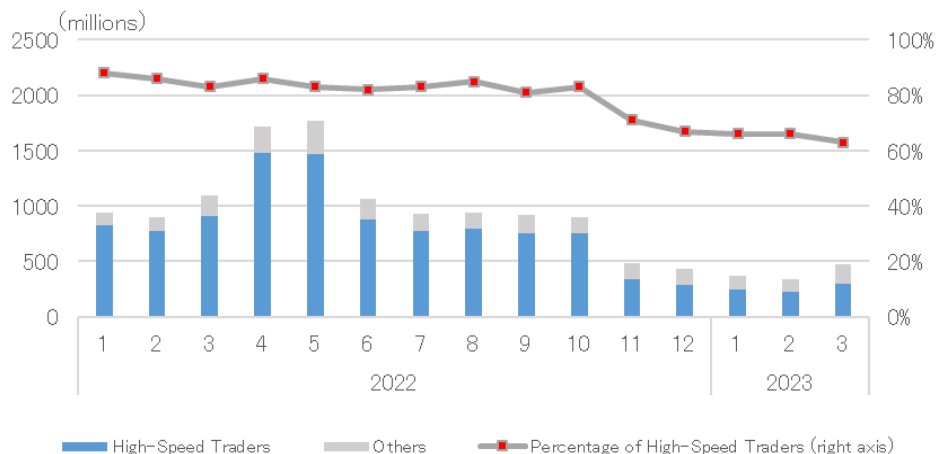
(Figure 2-2-1) Number of new orders by trading entity and ratio of new orders by High-Speed Traders to total new orders



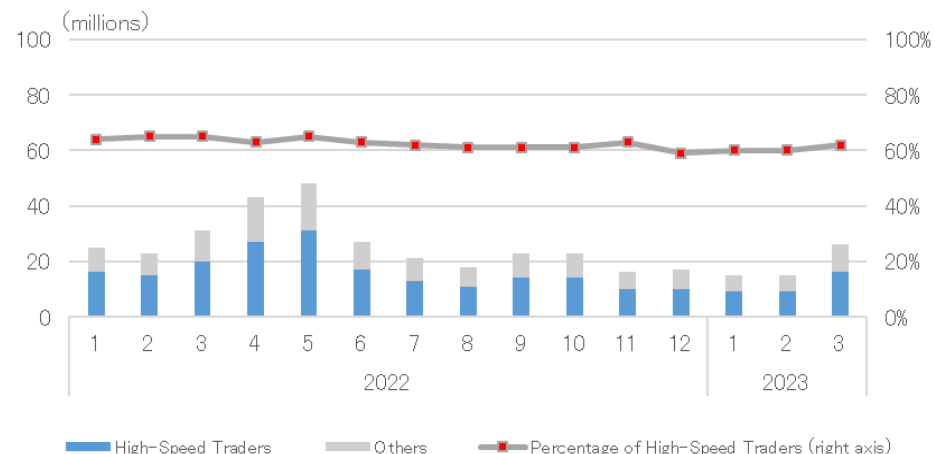
(Figure 2-2-2) Number of cancelled orders by trading entity and ratio of cancelled orders by High-Speed Traders to total cancelled orders



(Figure 2-2-3) Number of amended orders by trading entity and ratio of amended orders by High-Speed Traders to total amended orders



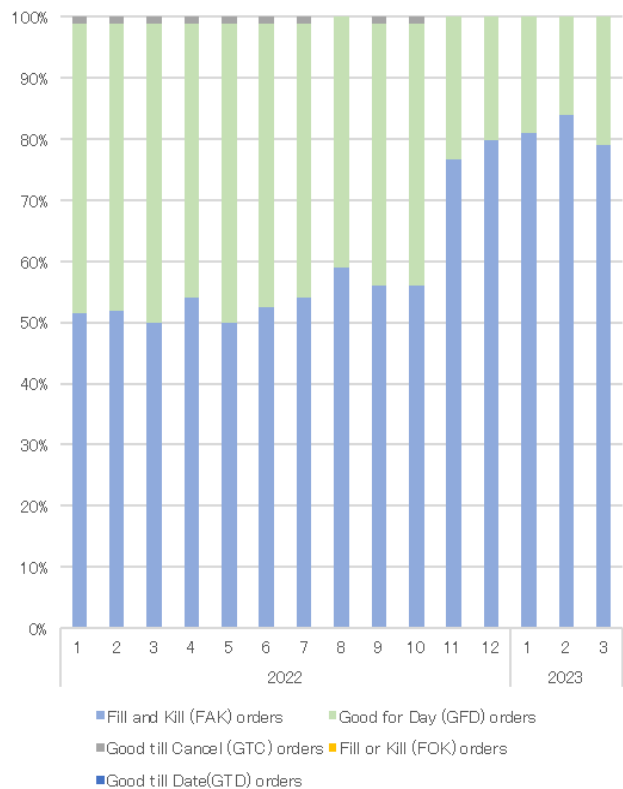
(Figure 2-2-4) Number of executed orders by trading entity and ratio of executed orders by High-Speed Traders to total executed orders



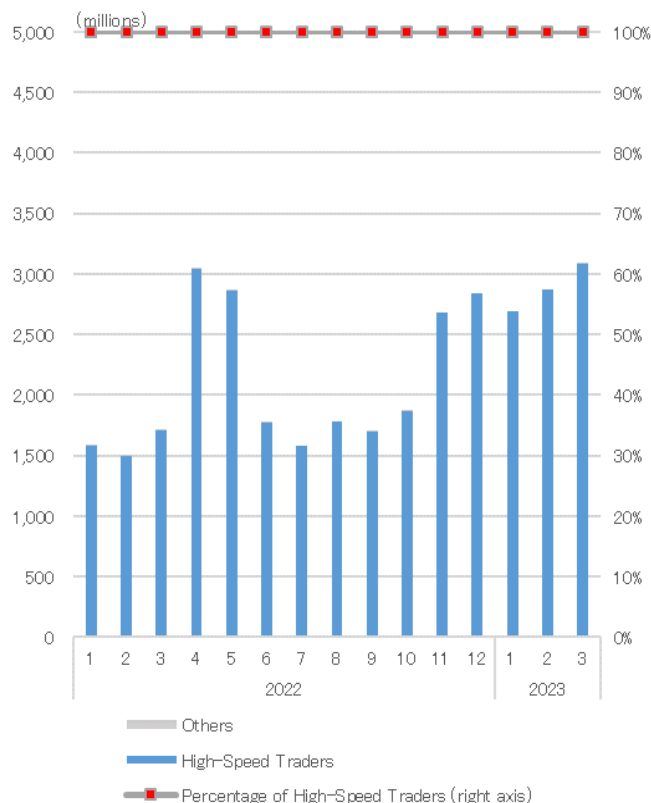
(1) Calculation of the ratio: the monthly total of new orders (cancelled orders, amended orders or executed orders) by High-Speed Traders / the monthly total of new orders (cancelled orders, amended orders or executed orders) by all participants.

2-2. Transactions by High-Speed Traders: (2) Order Types and Market Orders

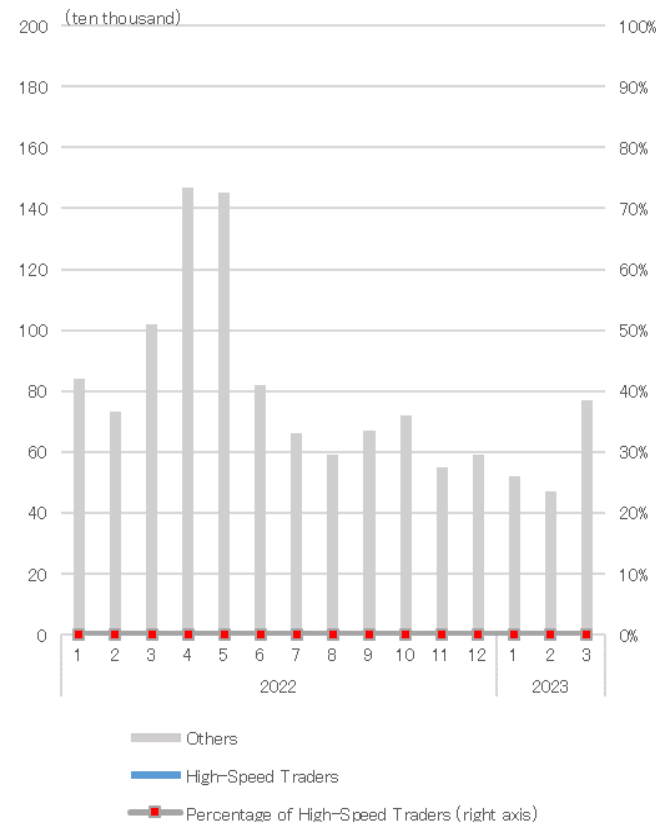
(Figure 2-2-5) Ratio of each type of order to total orders by High-Speed Traders¹²³⁴⁵



(Figure 2-2-6) Number of FAK orders by trading entity and ratio of FAK orders by High-Speed Traders to total FAK orders



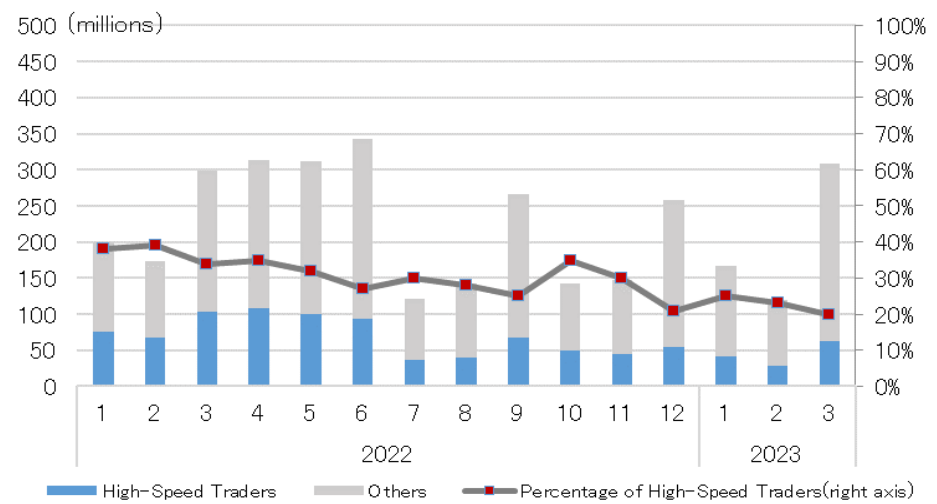
(Figure 2-2-7) Number of market orders by trading entity and ratio of market orders by High-Speed Traders to total market orders



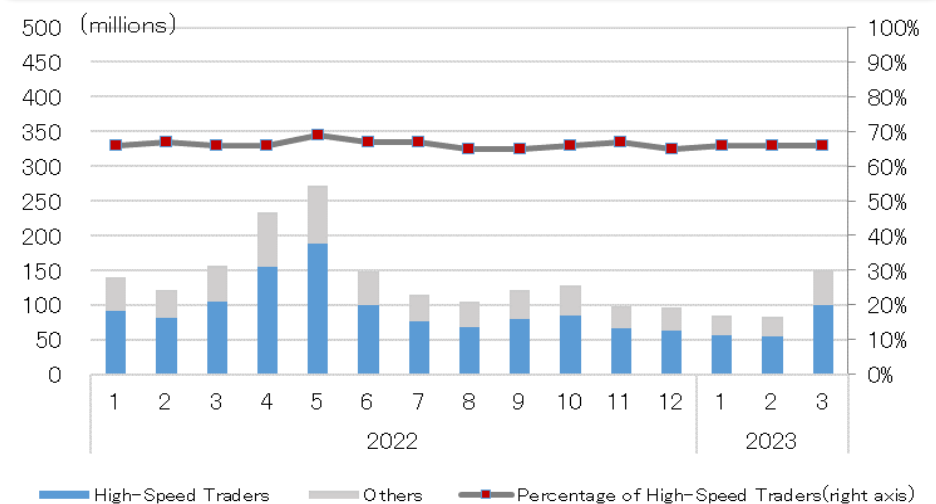
- (1) FAK (Fill And Kill) orders. orders in the case where there is unfilled volume after the order is partially executed, cancel the unfilled volume.
- (2) GFD (Good for Day) orders. orders that are valid until the end of the Day Session of the day (or, until the end of the Night Session if the order is submitted at the Night Session).
- (3) GTC (Goof Till Cancel) orders. orders that are valid until the cancellation (if not cancelled, it is valid until the end of the day session on the last trading day).
- (4) FOK (Fill Or Kill) orders. orders in the case where all the volume is not executed immediately, cancel all the volume.
- (5) GTD (Good Till Day) orders. orders that immediately executes part or all of its quantity at a specified price or a more favorable price and forfeits the order quantity that was not executed.
- (6) Calculation of the ratio in Figure 2-2-5: the monthly number of each type of order by High-Speed Traders / the monthly total number of each type of order by High-Speed Traders.
- (7) Calculation of the ratio in Figure 2-2-6: the monthly total of FAK orders by High-Speed Traders / the monthly total of FAK orders by all participants.
- (8) Calculation of the ratio in Figure 2-2-7: the monthly total of market orders by High-Speed Traders / the monthly total of market orders by all participants.

2-3. Trading Value Ratio and Trading Value of High-Speed Traders (by products)

(Figure 2-3-1) Trading Value Ratio and Trading Value of 10-year JGB Futures of High-Speed Traders



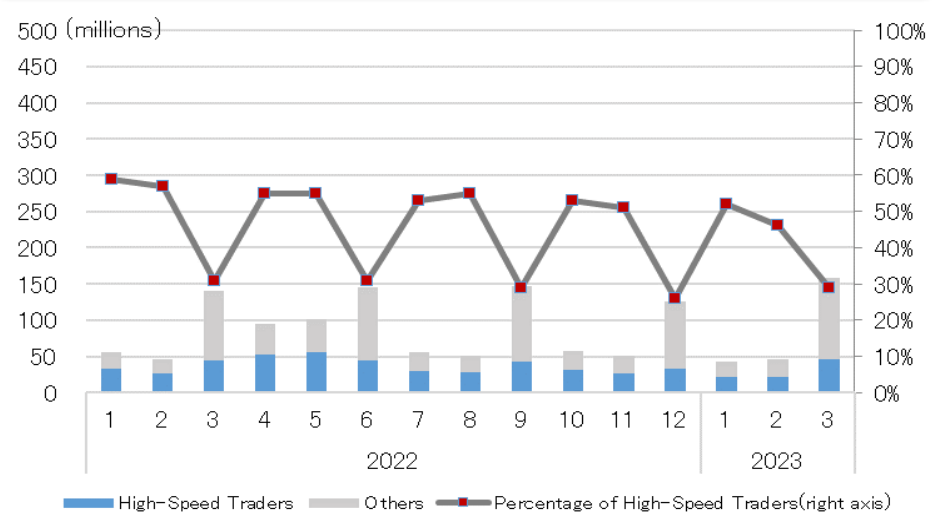
(Figure 2-3-2) Trading Value Ratio and Trading Value of Nikkei 225 mini Futures of High-Speed Traders



(Figure 2-3-3) Trading Value Ratio and Trading Value of Nikkei 225 Futures (Large Contracts) of High-Speed Traders



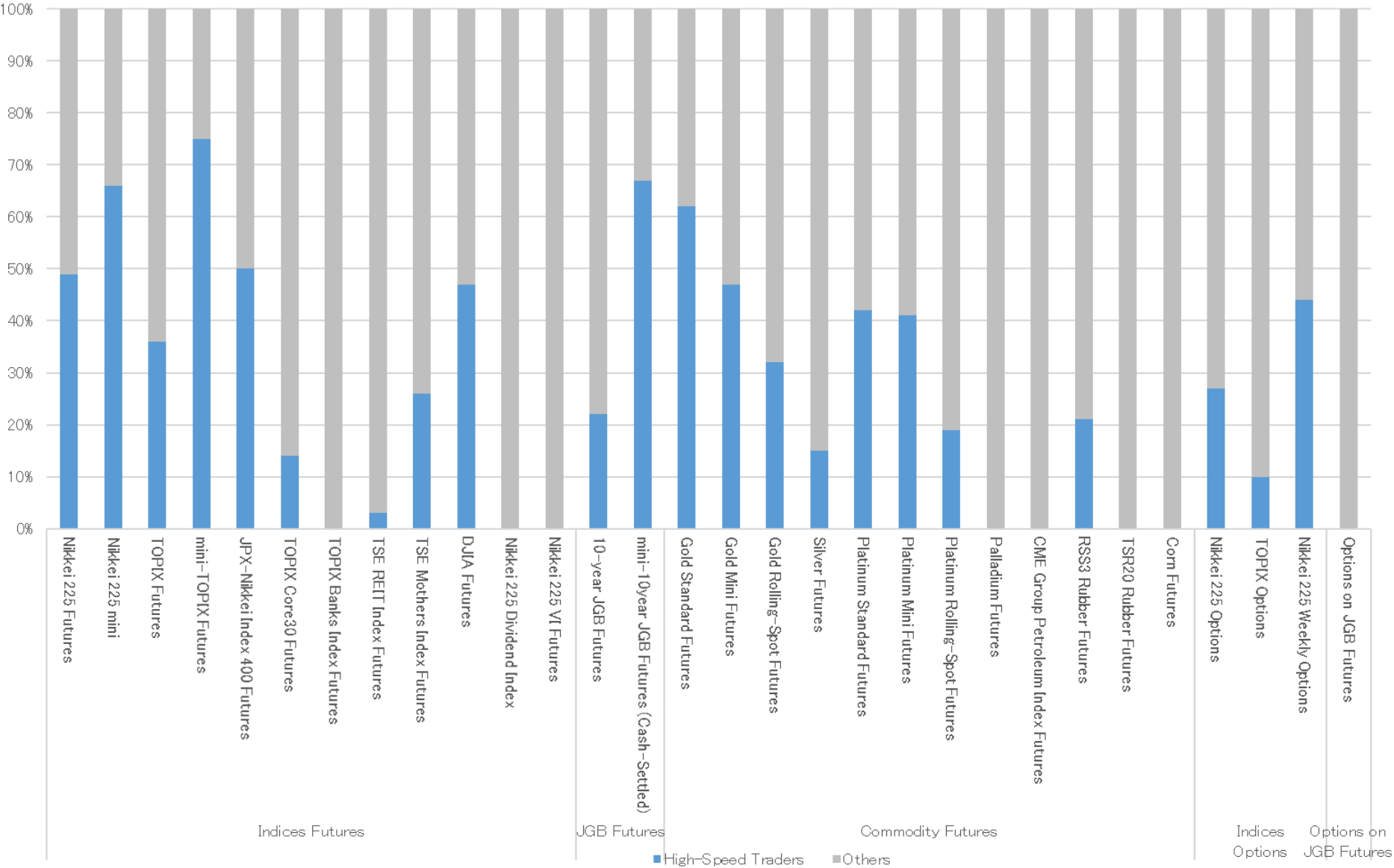
(Figure 2-3-4) Trading Value Ratio and Trading Value of TOPIX Futures (Large Contracts) of High-Speed Traders



(1) Calculation of the trading value ratio: the monthly trading value of High-Speed Traders / the monthly total trading value.
 (2) 4 products with high trading value.

2-4.【Reference】 Trading Value Ratio of High-Speed Traders (by products)

(Figure 2-4) Trading Value Ratio and Trading Value of High-Speed Traders (by products)



(1) Calculation of the ratio: Trading value of each product traded in 202301-03 divided by the total trading value of each product traded in 202301-03.