



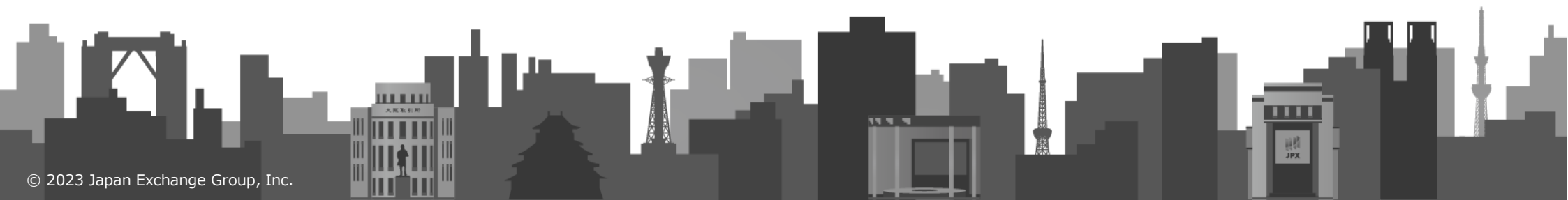
JPX
JAPAN EXCHANGE
GROUP

Detail Breakdown Trading Data Data Specifications (Internal Use)

(Ver. 1.4)

JPX Market Innovation & Research, Inc.

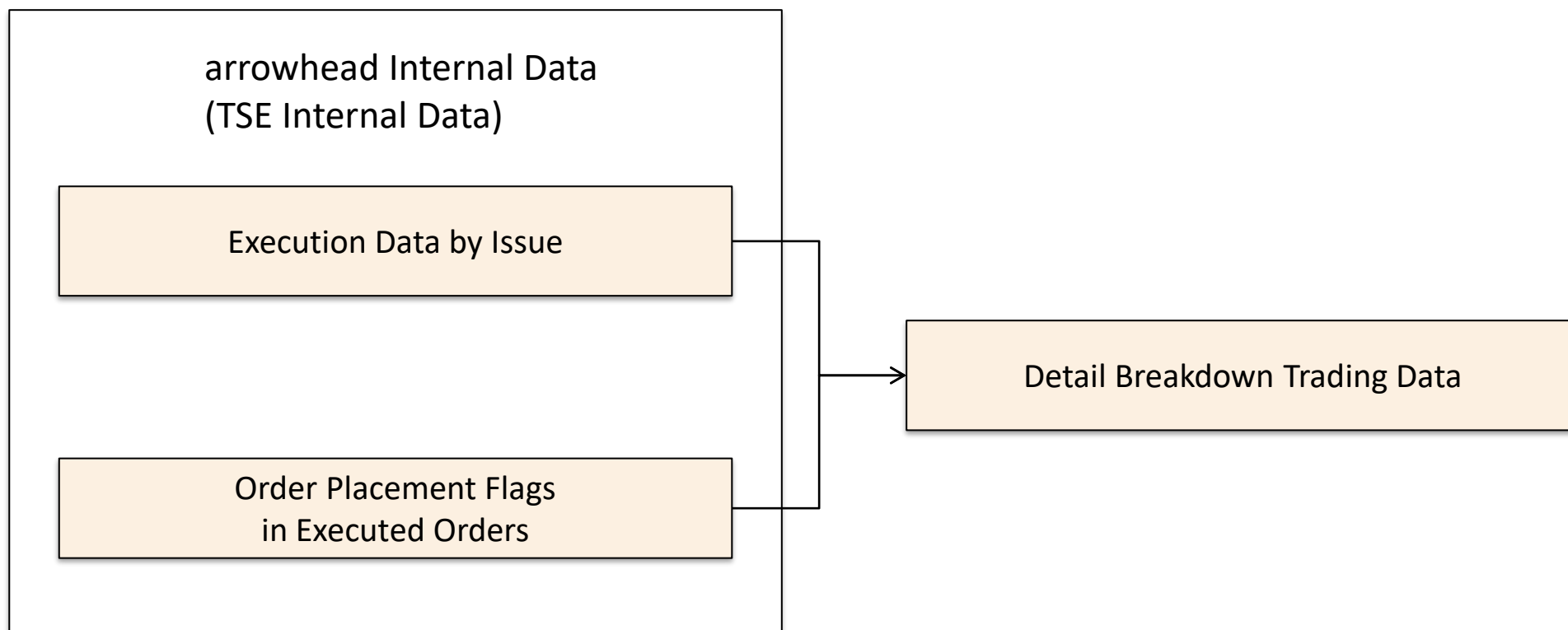
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1. Data Generation Method

- Detail Breakdown Trading Data is extracted from daily trading values and volumes (only regular trading sessions on the TSE market) per TSE-listed issue based on flags for margin transactions and short selling that are attached to orders at the time of placement.
- When an investor places an order to the TSE market, he/she is required to enter attribute information for the order (flags to indicate a margin transaction or short selling). These flags are normally used for applying restrictions.
- JPX Market Innovation & Research, Inc. uses these flags to compile the execution data by issue available in the arrowhead trading system and provides them to data users as "Detail Breakdown Trading Data".



2. Margin Transactions

- Features of margin transactions
- ✓ Margin transactions involve investors pledging collateral with the securities companies to borrow securities or funds for trading. (*1)
- ✓ An investor can use margin transactions to trade up to 3.3 times the value of the pledged collateral.
A margin sale is a short sale of securities borrowed from the securities company.

(Ref.) Outline of margin transactions <https://www.jpx.co.jp/english/equities/trading/margin/outline/index.html>

- Standardized margin transactions and negotiated margin transactions
- ✓ Margin transactions are classified into standardized margin transactions and negotiated margin transactions. The former refer to those involving eligible securities and settlement deadlines specified by TSE, while the latter refer to those where the investor and the securities company negotiate such conditions. The settlement deadline for standardized margin transactions can be up to six months, but for negotiated margin transactions there may sometimes be no specific settlement date.

- Securities for loans for margin transactions

- ✓ In general, all listed securities can be bought on margin, but most of those that can be sold on margin are securities selected by TSE as eligible for loans for margin transactions. Currently, about 60% of listed securities are eligible for loans for margin transactions.

(Ref.) List of securities for loan transactions <https://www.jpx.co.jp/english/listing/others/margin/index.html>

- Margin transaction flag

- ✓ When conducting a margin transaction, the investor is required to attach a flag to indicate whether the order is a transaction to create a new position or one to close an existing position. (*2)
- ✓ When settling a margin transaction, the outstanding position is normally closed by an opposite matching transaction. For example, an equivalent margin sell transaction is made to close (settle) a margin buy position.

(*1) Transactions by overseas investors that involve securities or funds borrowed from brokers that are not registered financial instruments business operators do not fall under margin transactions.

(*2) The flag does not differentiate between standardized or negotiated margin transaction.

3. Short Selling

- Overview

- ✓ Short selling is sale of securities not held by the seller but borrowed from another party.
- ✓ Short selling may or may not involve margin transactions.
Normally, non-margin short selling accounts for a larger portion of short selling than selling on margin.
- ✓ Short selling is subject to regulations such as marking requirement and price restriction.

(Ref.) Trading restrictions <https://www.jpx.co.jp/english/equities/trading/regulations/02.html>

- Short selling marking requirement

- ✓ When making a short sale, the investor is required to indicate whether the sell order is a short sale when placing the order. However, there are also short sales that are exempted from this marking requirement.

- Short selling price restriction (up-tick rule)

- ✓ If the price of an issue falls by 10% during the trading day, short selling will be subject to the price restriction. However, there are also short sales that are exempted from this price restriction.

- Short selling flag

- ✓ When making a short sale, the investor is required to attach a flag to indicate whether the order is a short sale exempted from price restriction.
- ✓ A short sale that is exempted from the marking requirements is normally placed to TSE as a long sale (i.e., selling excluding short selling).
- ✓ A short sale that is exempted from short selling price restriction is normally placed to TSE as "short selling without price restriction".

4. Data Specifications (Internal Use Service) 1/4

- Data service name
 - ✓ Detail Breakdown Trading Data
- Data contents
 - ✓ Trading value and volume data per issue extracted based on flags at the time of order placement
- Format
 - ✓ All issue data is stored in a single csv file (1 file per day).
- Data Period, Acquisition method
 - ✓ Data from January 2010 available
 - ✓ Please refer to the connection specifications provided at the time of contract for the acquisition method.

4. Data Specifications (Internal Use Service) 2/4

- File layout
- ✓ A csv file containing 20 columns with the following headers (common to both historical data and daily data).
- ✓ For details on the meanings of the headers, please see the next page.

date	code	va_1_0_0	va_1_0_5	va_1_0_7	va_1_2_5	va_1_2_7	va_1_4_0	va_3_0_0	va_3_2_0	va_3_4_0	vo_1_0_0	vo_1_0_5	vo_1_0_7	vo_1_2_5	vo_1_2_7	vo_1_4_0	vo_3_0_0	vo_3_2_0	vo_3_4_0
20180111	XXXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Trade date (YYYYMMDD)

Breakdown of execution value

Breakdown of execution volume

Securities code (4-digit or 5-digit)

4. Data Specifications (Internal Use Service) 3/4

- The first two columns of the header indicate the trade date and securities code. The headers from the third column onward follow "①_②_③_④" described below.
- ✓ Headers from the third column onward mean "execution value/execution volume_sell/buy_margin transaction flag_short sale flag".
- ✓ For example, va_1_0_0 means execution value_sell_non-margin transaction_non-short selling (i.e., long selling value).

Header	Meaning	Example	Remarks
①	Either execution value or execution volume	va: Execution value (JPY) vo: Execution volume (shares)	<ul style="list-style-type: none"> • Columns 3 to 11 show the breakdown of execution value, and columns 12 to 20 show the breakdown of execution volume.
②	Either sell or buy	1: Sell 3: Buy	<ul style="list-style-type: none"> • The total sell execution value (volume) matches the total buy execution value (volume).
③	Margin flag	2: New margin transactions 4: Closing margin transactions 0: Non-margin transactions	<ul style="list-style-type: none"> • New margin transactions means those that create new positions. • Closing margin transactions means those made to close existing margin positions. • Non-margin transactions means those that are not margin transactions.
④	Short selling flag	5: Short selling (with price restriction) 7: Short selling (without price restriction) 0: Non-short selling	<ul style="list-style-type: none"> • Short selling (without price restriction) means those legally exempted from such price restriction. As such, other short sales come under short selling (with price restriction). • Non-short selling means long selling and long buying.

4. Data Specifications (Internal Use Service) 4/4

Header	Contents	Unit	Remarks
date	Trade date (YYYYMMDD)	-	
code	Securities code (4-digit or 5-digit) (*1)	-	
va_1_0_0	Long selling execution value	JPY	Breakdown of sell execution value
va_1_0_5	Out of short selling (excluding new margin selling), execution value of orders not exempted from price restriction		
va_1_0_7	Out of short selling (excluding new margin selling), execution value of orders exempted from price restriction		
va_1_2_5	Out of new margin selling (sell orders that create new margin sell positions), execution value of orders not exempted from price restriction		
va_1_2_7	Out of new margin selling (sell orders that create new margin sell positions), execution value of orders exempted from price restriction		
va_1_4_0	Execution value of closing margin selling (sell orders that close existing margin buy positions)		Breakdown of buy execution value
va_3_0_0	Long buying execution value		
va_3_2_0	Execution value of new margin buying (buy orders that create new margin buy positions)		
va_3_4_0	Execution value of closing margin buying (buy orders that close existing margin sell positions)		
vo_1_0_0	Long selling execution volume	Shares	Breakdown of sell execution volume
vo_1_0_5	Out of short selling (excluding new margin selling), execution volume of orders not exempted from price restriction		
vo_1_0_7	Out of short selling (excluding new margin selling), execution volume of orders exempted from price restriction		
vo_1_2_5	Out of new margin selling (sell orders that create new margin sell positions), execution volume of orders not exempted from price restriction		
vo_1_2_7	Out of new margin selling (sell orders that create new margin sell positions), execution volume of orders exempted from price restriction		
vo_1_4_0	Execution volume of closing margin selling (sell orders that close existing margin buy positions)		Breakdown of buy execution volume
vo_3_0_0	Long buying execution volume		
vo_3_2_0	Execution volume of new margin buying (buy orders that create new margin buy positions)		
vo_3_4_0	Execution volume of closing margin buying (buy orders that close existing margin sell positions)		

(*1) Please note that alphabetic characters will be implemented for securities codes newly established on or after January 1, 2024.

5. Notes on Using the Data

- Short selling and selling on margin

Selling on margin is a type of short selling. Normally, non-margin short selling accounts for a larger portion of the market than selling on margin. Also, most short sales by professional investors are non-margin short sales.

- Actual condition of margin transactions

Margin transactions can start with either a margin buy (new margin buy, closed later by margin sell) or a margin sell transaction (new margin sell, closed later by margin buy). In general, there are more margin transactions that start with buying on margin. Also, more than half of trading by retail investors are margin transactions.

<https://www.jpx.co.jp/english/markets/statistics-equities/investor-type/index.html>

- Outstanding margin transactions

Users can use margin transaction and short selling data with outstanding margin transactions by issue (at the end of the week) to estimate the daily outstanding margin transactions by issue. Note, however, that figures in margin transaction and short selling data may differ from actual figures because it does not include off-auction transactions and those involving physical delivery.

- ✓ Outstanding margin buying (estimated) = Outstanding margin buying at end of week1 + new margin buying in week2 – closing margin selling in week2

- ✓ Outstanding margin selling (estimated) = Outstanding margin selling at end of week1 + new margin selling in week2 – closing margin buying in week2

Data on outstanding margin transactions (including historical data) can be obtained from TSE Reference Data Service.

<https://www.jpx.co.jp/english/markets/paid-info-equities/reference/>