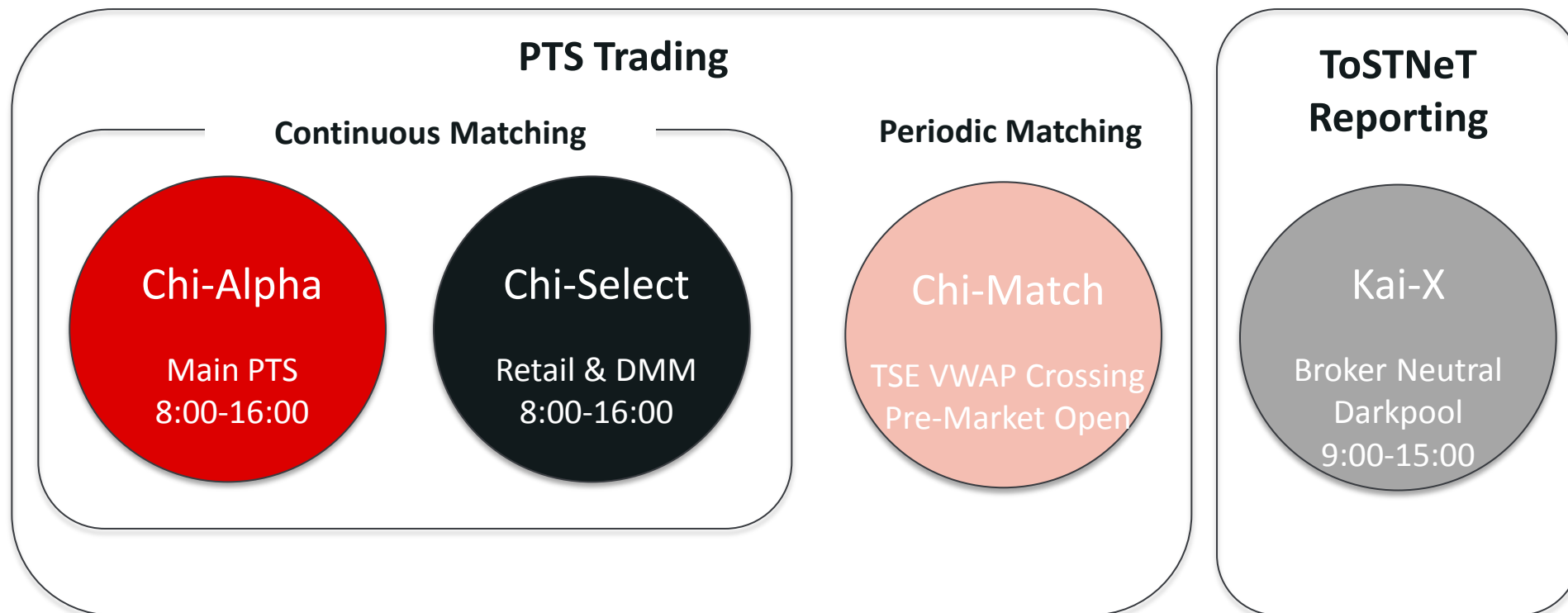


A black and white photograph of grass with water droplets on its blades, serving as the background for the report cover. The top half of the image is obscured by a red banner.

CHI-X JAPAN MONTHLY REPORT

MAY 2019

Markets operated by Chi-X Japan

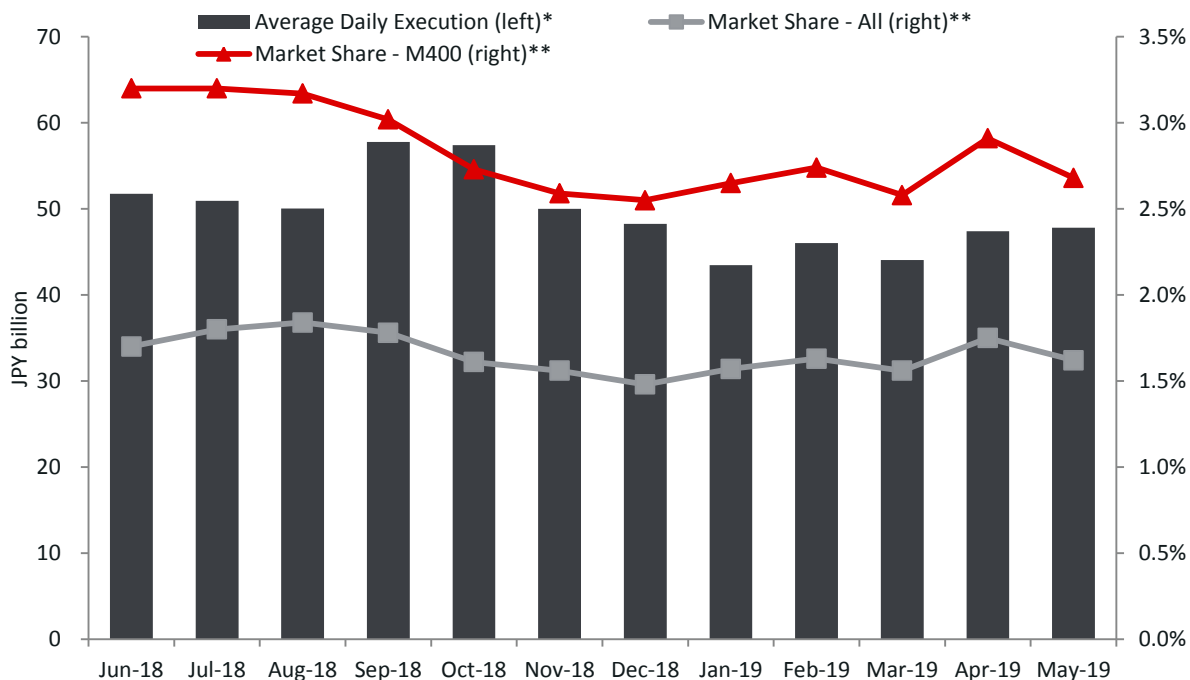


Chi-Alpha & Select

Overview - Chi-Alpha & Chi-Select

- ◆ Chi-Alpha is the largest and longest operating among venues run by Chi-X Japan
- ◆ Chi-Select is catered to retail focused brokers with features allowing them to provide their clients with better best execution
- ◆ Key Features
 - ✓ Continuous matching between 8am to 4pm for stocks listed on TSE
 - ✓ Various order types – Pegged, Post-only, Iceberg, IOC/FOK
 - ✓ Robust, resilient, stable, low latency platform
- ◆ Values
 - ✓ Price Improvement opportunities, esp. Mid/Small Caps
 - ✓ Market making / Order posting opportunities
 - ✓ Faster / higher execution opportunities

Statistics - Chi-Alpha & Chi-Select

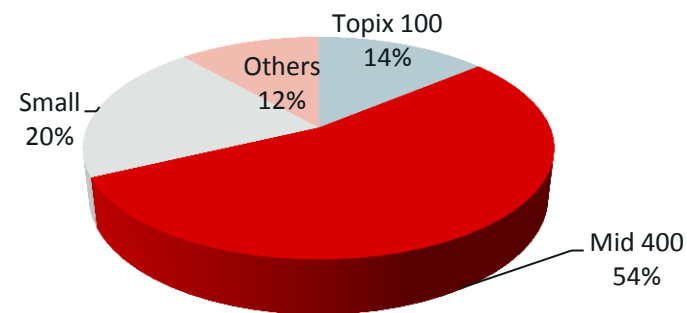


* Chi-Alpha & Chi-Select combined

** Market share of Chi-X's 2 markets among lit markets (TSE, Chi-Alpha, Chi-Select, JNX-J and JNX-X)

*** PI compares the trade price vs. TSE's best bid for sell or best offer for buy at each point of trade and is calculated from the perspective of the Taker of the trade

Execution Value Breakdown by Market Cap



	Average Price Improvement (PI) (bps) ***	Market Share**
TOPIX100	0.5	0.5%
Mid 400	2.6	2.7%
Small	4.0	3.0%
Others	7.7	1.3%
Overall	3.5	1.6%

Statistics - Chi-Alpha & Chi-Select

Average Daily Execution	JPY 47,822,941,187
Monthly Total Value	JPY 908,635,882,187
Monthly Total Volume	670,324,772 Shares

Top Symbols by Execution

		JPY	Market Share
4689	YAHOO J	8,923,650,160	4.3%
9984	SOFTBNKG	8,317,954,100	0.6%
4755	RAKUTEN	6,695,410,170	2.5%
6506	YASKAWA	6,438,442,590	1.8%
1570	NIKKEILV	5,993,325,904	0.3%
6762	TDK	5,770,482,500	2.3%
6963	ROHM	5,760,985,600	3.3%
3092	ZOZO	5,576,395,310	0.9%
1357	NKDOUBLE	5,355,173,889	0.8%
7751	CANON	5,154,083,030	1.8%

Top Symbols by Market Share

		JPY	Market Share
5212	YAHOO J	261,300	12.3%
5967	SOFTBNKG	17,366,650	10.3%
9704	RAKUTEN	22,981,980	8.8%
3315	YASKAWA	62,146,200	8.2%
5703	NIKKEILV	1,362,980,820	8.0%
3226	TDK	1,010,879,270	8.0%
2134	ROHM	125,812,800	7.8%
3287	ZOZO	800,975,480	7.6%
3296	NKDOUBLE	1,020,952,290	7.5%
2769	CANON	5,220,960	7.4%

* Chi-Alpha & Chi-Select combined

** Market share of Chi-X's 2 markets among lit markets (TSE, Chi-X, SBI JNX); Chi-X Japan's estimate

Chi-Match

chi-x

Overview – Chi-Match

- ◆ Chi-Match allows participants to find counterparties to trade at **TSE's VWAP before the market open**, hence **offload the trading risk in the continuous matching hours**.
- ◆ How does it work?

Order acceptance (from 8 to each pre-matching time)

- Order Type: Full-day VWAP / PM VWAP / AM VWAP

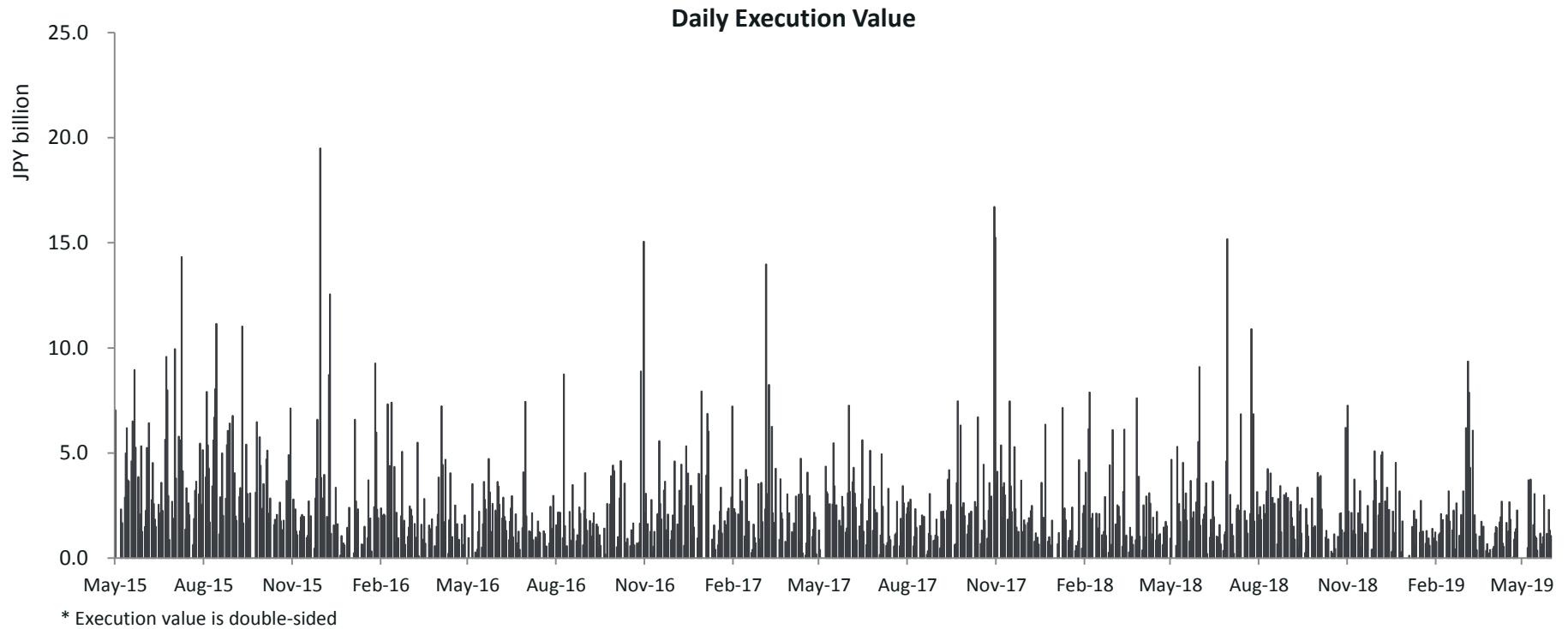
Pre-matching time / Sessions

- Full-day VWAP : 8:33, 8:45, 8:52, 8:56
- PM VWAP : 12:15, 12:25
- AM VWAP : 8:45, 8:52

Trade execution (after market close)

Chi-Match Execution Trend

- ◆ Spikes on major index rebalance days (MSCI, TOPIX, N225) and SQ days



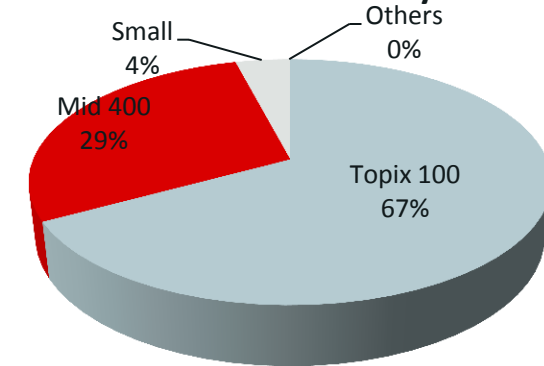
Chi-Match Execution Snapshot

Average Daily Execution JPY 1,588,765,681

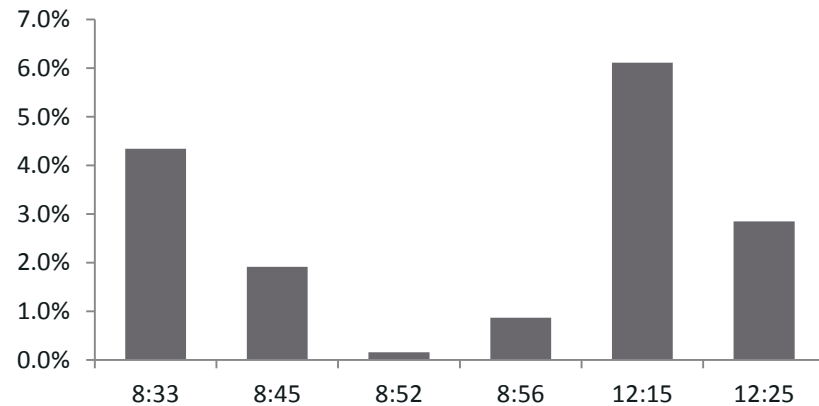
Max Daily Execution (May 10) JPY 3,740,238,576

Average Trade Size 27 Lots

Execution Value Breakdown by Index



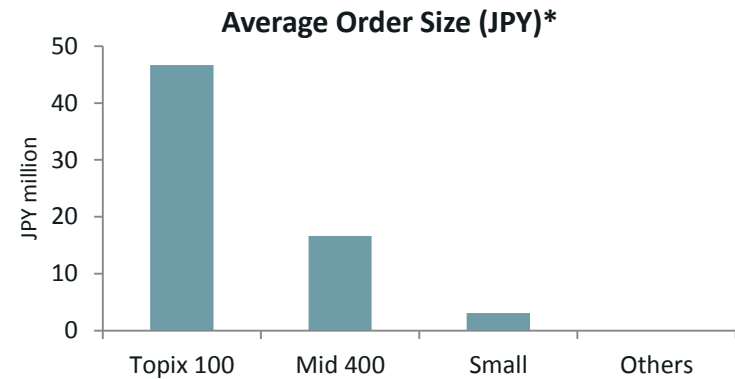
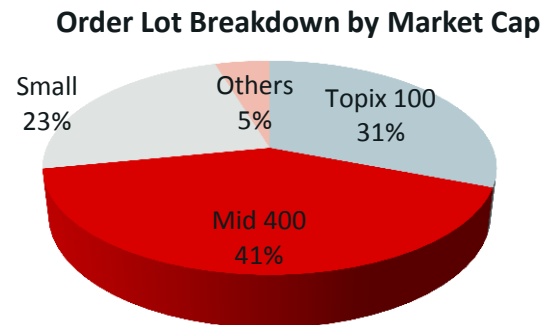
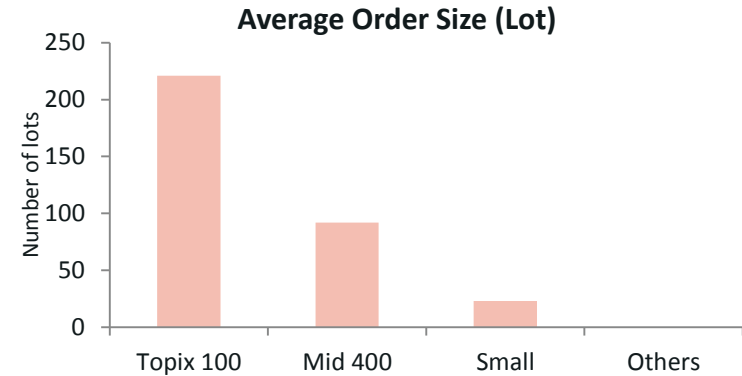
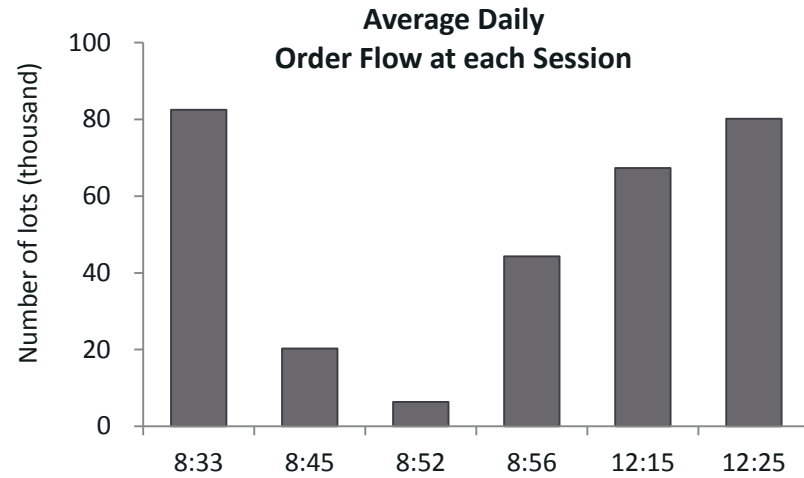
**Execution Ratio (Trade lot/Order lot)
at each Session**



Top Symbols by Execution Value (JPY)

8766	TOKIOMAR	643,883,766
7203	TOYOTA	629,737,491
6503	MELCO	535,810,644
6501	HITACHI	488,541,569
6098	RECRUIT	454,481,643
6758	SONY	396,669,954
9433	KDDI	341,292,112
5020	JXTG	240,974,968
9984	SOFTBNKG	224,132,320
8113	UNICHAM	210,750,990

Chi-Match Order Snapshot



* Base price is used to calculate order value

Kai-X

chi-x

Overview - Kai-X

- ◆ Kai-X is a **broker neutral ToSTNet cross system** where participating brokers bring together non-displayed orders and anonymously cross.
- ◆ It enables brokers to source **additional liquidity from others without disclosing their order flows**. It also serves as **“outsourcing” of dark pool** for brokers who wish to reduce system development and maintenance cost.
- ◆ The same trading hours as that of TSE.
- ◆ Crossing at a better than TSE price (especially **Mid-point of TSE spread**) is pursued.
- ◆ It is designed to **equalize the latency** gap among participants.
- ◆ MEQ (**Minimum Execution Quantity; single counter party**) and **Self-Cross Prevention** (among the same brokers; among the same institutional investors) available.

Kai-X Execution Snapshot

Average Daily Execution

JPY 3,629,656,597

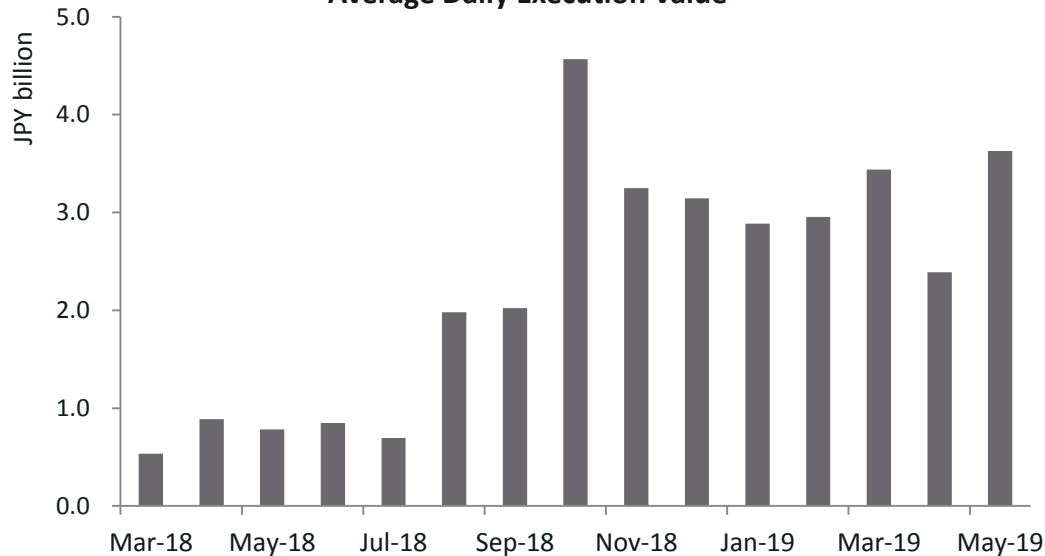
Average Trade Size

1.4 Lot

% of Mid-point Trade

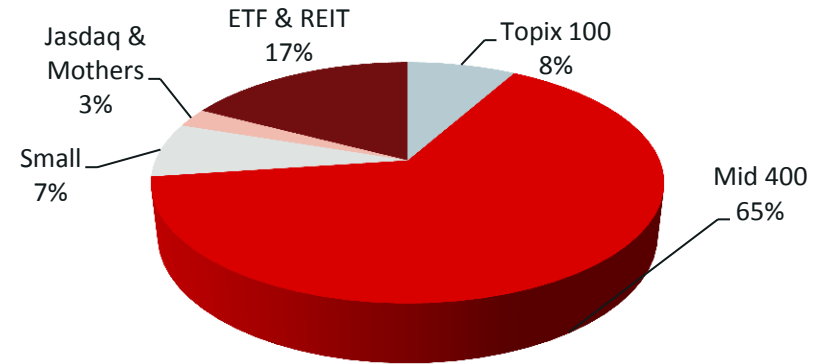
95.4%

Average Daily Execution Value



* Execution value is double-sided

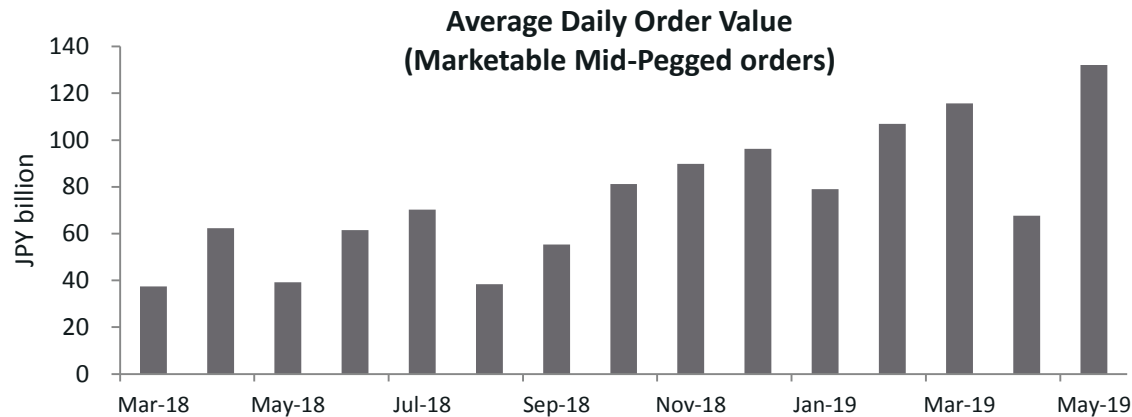
Execution Value Breakdown by Market Cap



	Avg PI (bps)	Avg PI (spread)	Avg Order Resting Time (s)
TOPIX100	1.6	48.2%	137
M400	5.0	49.6%	25
Small	9.5	49.3%	85
JASDAQ & Mothers	14.8	44.8%	122
ETF & REITS	4.1	49.9%	54
Overall	5.4	49.4%	48

* PI compares the trade price vs. TSE's best bid for sell or best offer for buy at each point of trade and is calculated from the perspective of the Taker of the trade

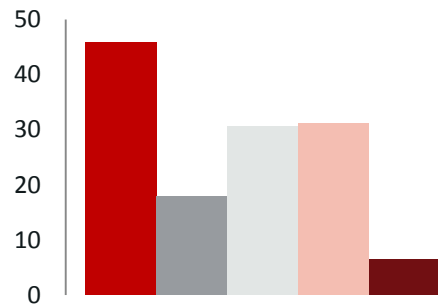
Kai-X Order Snapshot



Top Symbols by Avg Order Lot Size
(TOPIX100)

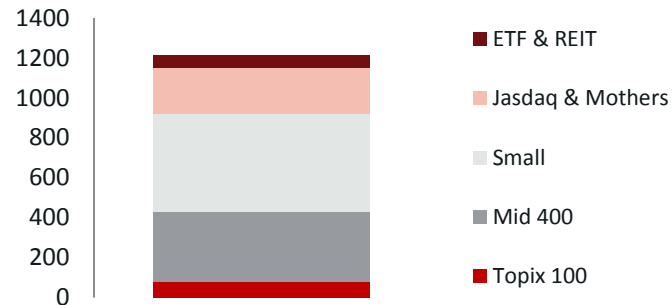
8411	MIZUHO	497
8604	NOMRAHD	387
2502	ASAHIGHD	314
8308	RESONA	101
4503	ASTELLAS	96
9502	CHUBPWR	95
8306	MUFG	93
6367	DAIKINI	88
6902	DENSO	73
8035	TKOELCN	60

Average Order Size (Lot)



* Order size is weighted by resting time

Average Daily Active Symbol Count



Top Symbols by Avg Order Lot Size
(Mid400)

8136	SANRIO	94
8586	HIT-CAP	91
4689	YAHOO J	67
5631	J.STELW	51
6925	USHIO	47
8729	SONY FH	45
1883	MAEDARD	39
6465	HOSIZAKI	36
8381	SANINBK	34
8060	CANON MJ	30

Disclaimer

© 2019, Chi-X Japan Limited. All rights reserved. Chi-X is a registered trademark.

Chi-X Japan operates PTSs (proprietary trading systems) to match equity orders from participants who are registered broker-dealers in Japan. Chi-X Japan does not provide its services for persons other than Professional Investors. The information provided here (the “Information”) is intended for Professional Investors only. Under no circumstances may the Information be used or relied upon, or otherwise considered as an offer to purchase or sell any security, or as a solicitation or recommendation of the purchase, sale, or offer to purchase or sell any security.

Redistribution or reproduction of this information is prohibited. The copyright of the Information shall be retained by Chi-X Japan, in principle, and redistribution or reproduction of the Information without Chi-X Japan’s permission is prohibited by the Copyright Act.

Chi-X Japan has taken care to ensure that the Information is correct at the time of its preparation, but shall not be liable for any loss or damage arising out of reliance on the contents thereof.

Chi-X Japan Limited.

A Financial Instruments Firm registered with the Director of the Kanto Local Finance Bureau of the Ministry of Finance (Kin-sho) No. 2426

Association Memberships: Japan Securities Dealers Association

