

The background of the slide is a black and white photograph of grass blades covered in water droplets. The top half of the image is obscured by a solid red horizontal band. The text is positioned within this red band.

CHI-X JAPAN MONTHLY REPORT

APRIL 2019

Markets operated by Chi-X Japan

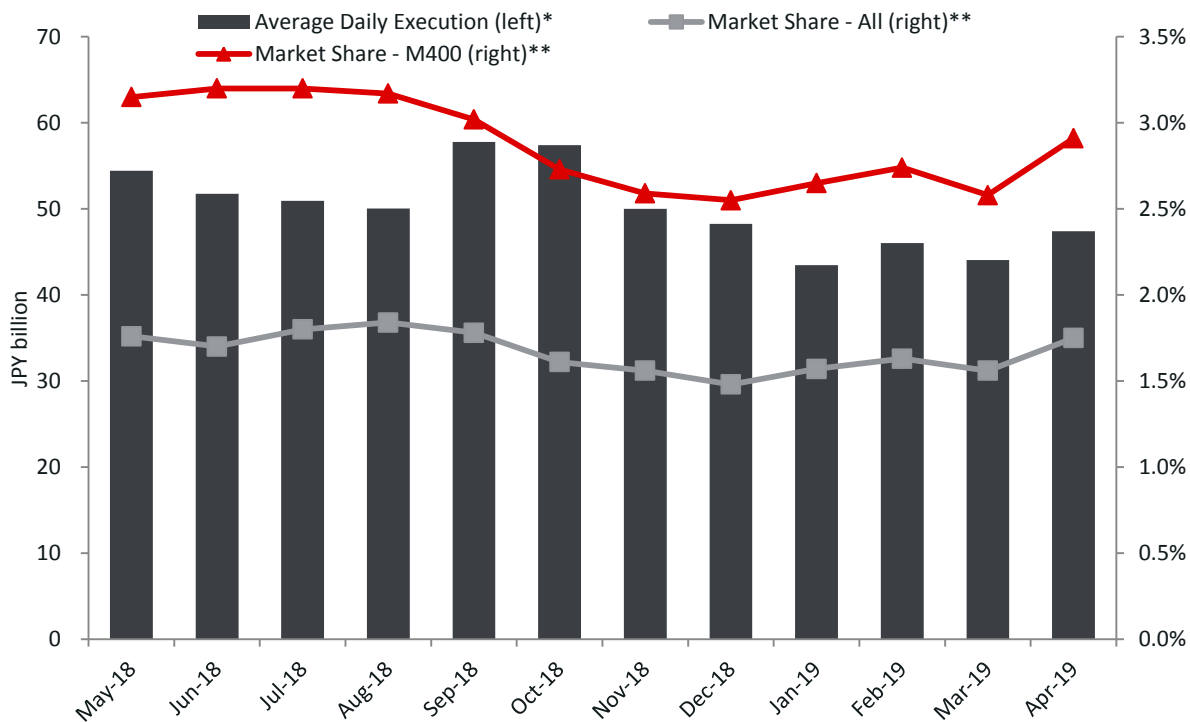


Chi-Alpha & Select

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

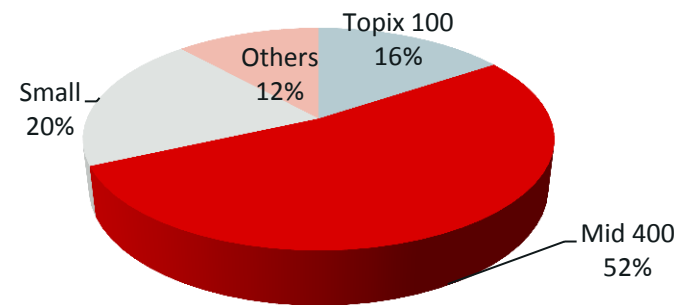


* Chi-Alpha & Chi-Select combined

** 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	0.7%
Mid 400	2.7	2.9%
Small	3.9	3.2%
Others	7.3	1.4%
Overall	3.6	1.8%

Statistics - Chi-Alpha & Chi-Select

Average Daily Execution	JPY 47,398,925,540
Monthly Total Value	JPY 947,978,510,796
Monthly Total Volume	623,773,859 Shares

Top Symbols by Execution

		JPY	Market Share
4755	RAKUTEN	13,662,502,340	2.4%
1570	NIKKEILV	8,854,803,991	0.4%
6506	YASKAWA	8,814,092,520	2.0%
3436	SUMCO	7,420,589,100	1.8%
6645	OMRON	7,358,069,300	4.0%
1357	NKDOUBLE	7,316,059,727	1.5%
4689	YAHOO J	7,248,791,870	5.4%
9984	SOFTBNKG	7,027,464,000	0.5%
7974	NINTEND	7,019,228,100	0.4%
3092	ZOZO	6,827,853,040	1.3%

Top Symbols by Market Share

		JPY	Market Share
1457	DW TPX-1	19,572,866	20.0%
5967	TONE	15,796,570	14.8%
5212	FUJIGLS	1,185,140	9.1%
2769	VILAGEV	5,019,210	8.1%
3471	MITSUILP	621,668,790	7.7%
5912	OSJBHD	346,395,330	7.7%
2134	SUNCAPTL	262,485,710	7.7%
8714	SENSHUIK	321,242,980	7.6%
3226	ACCOMMO	1,171,392,990	7.6%
2353	NP-PARK	211,628,590	7.5%

* 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

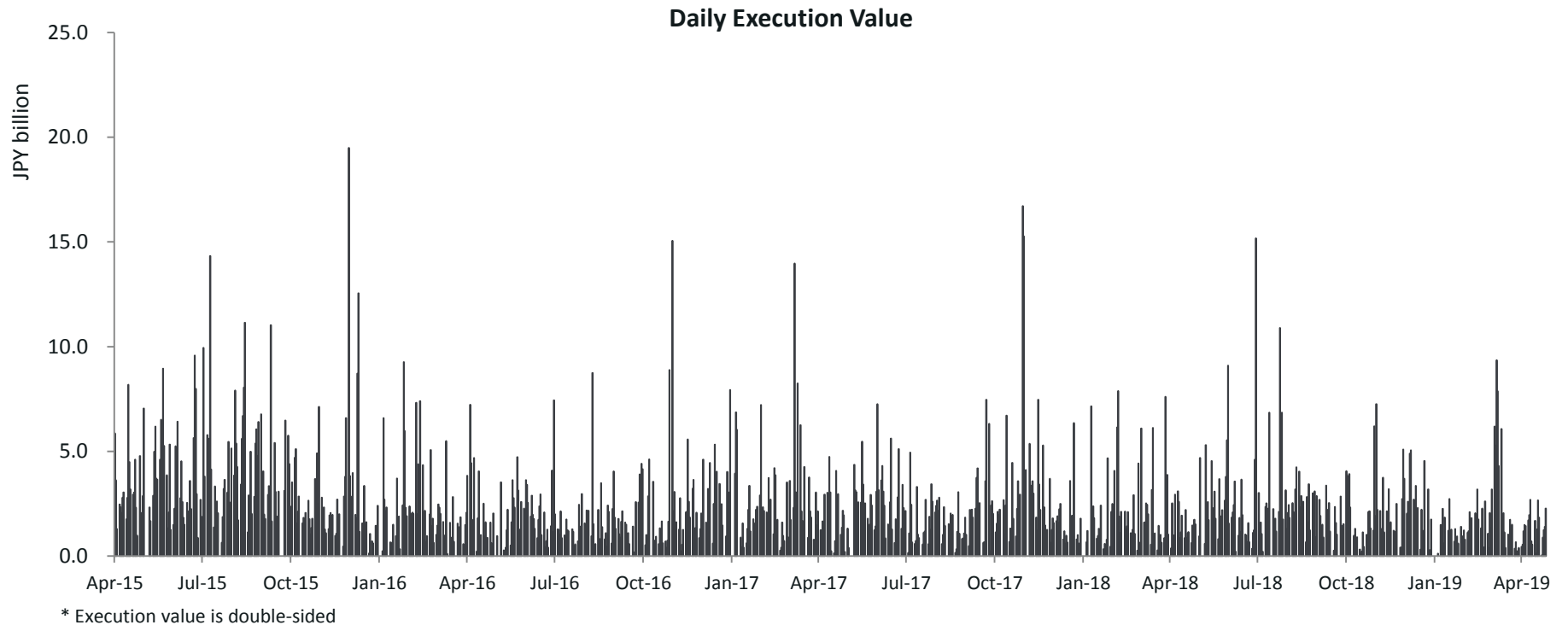
Pre-matching time / Sessions

- 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



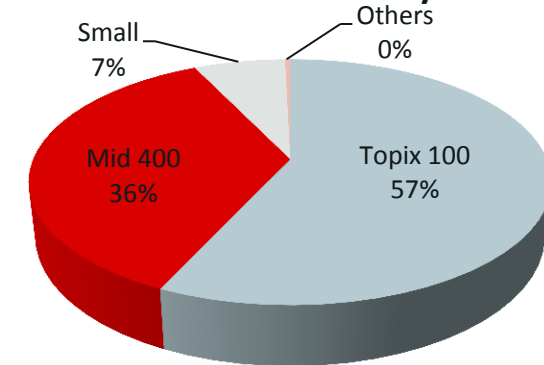
Chi-Match Execution Snapshot

Average Daily Execution JPY 1,307,447,646

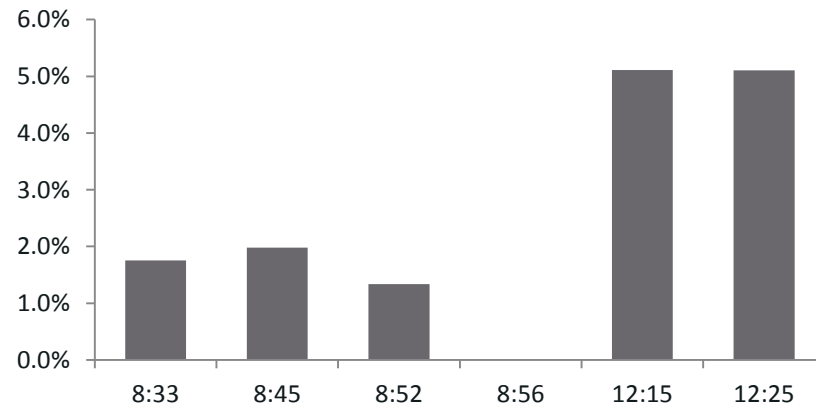
Max Daily Execution (April 10) JPY 2,687,557,780

Average Trade Size 29 Lots

Execution Value Breakdown by Index



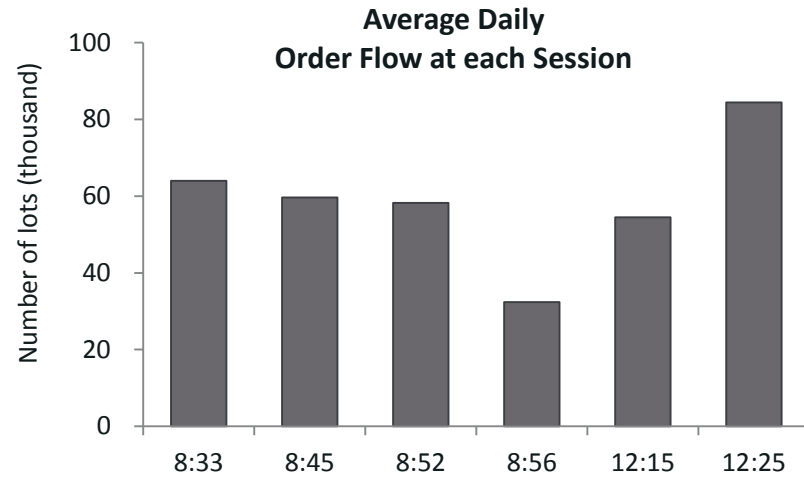
**Execution Ratio (Trade lot/Order lot)
at each Session**



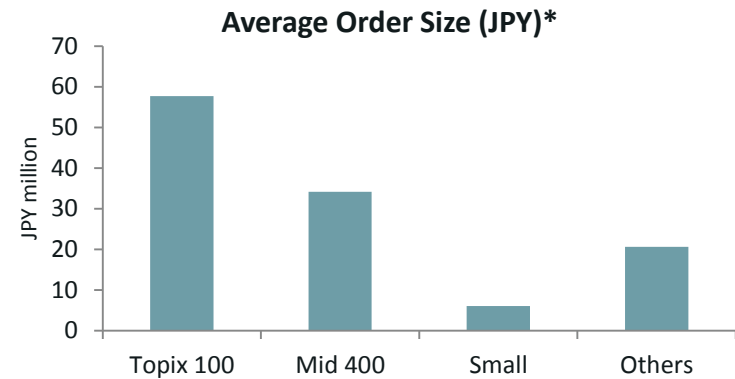
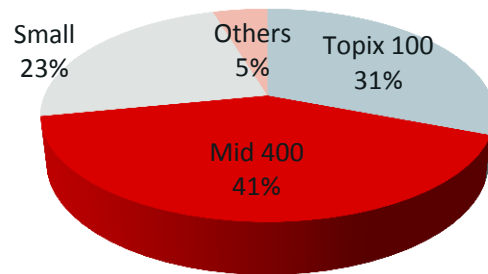
Top Symbols by Execution Value (JPY)

4063	SINETUC	136,554,734
8316	SMFG	115,384,611
9024	SEIBU HD	100,666,535
6702	FUJITSU	98,686,945
4568	1-SANKYO	96,149,015
7974	NINTEND	95,899,298
6869	SYSMEX	93,930,146
6301	KOMATSU	92,122,351
8002	MARBENI	89,497,860
7912	DNP-PRN	81,255,795

Chi-Match Order Snapshot



Order Lot Breakdown by Market Cap



* 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 2,389,082,090

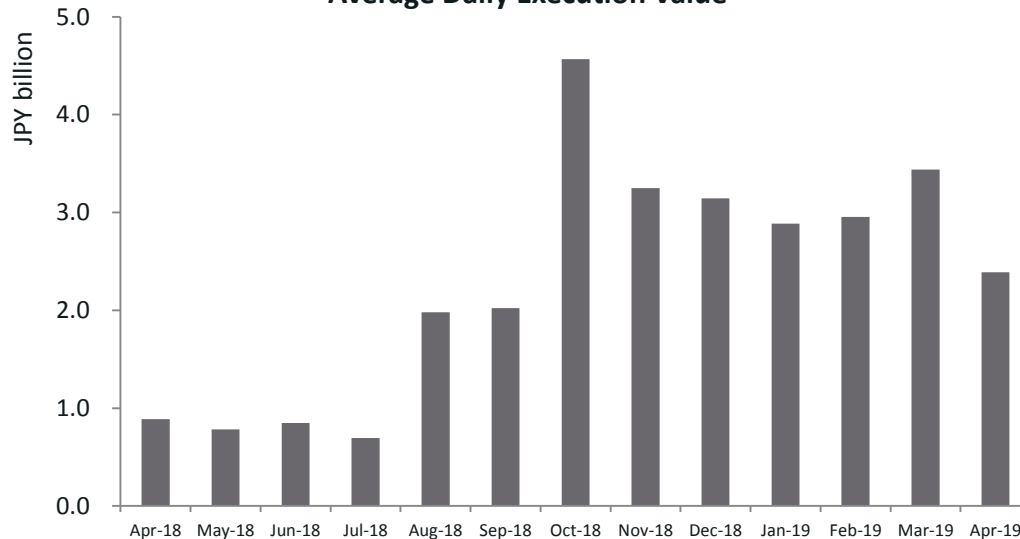
Average Trade Size

1.4 Lot

% of Mid-point Trade

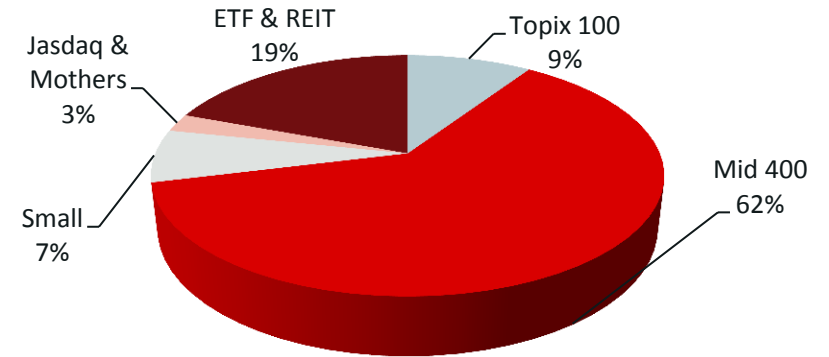
95.4%

Average Daily Execution Value



* Execution value is double-sided

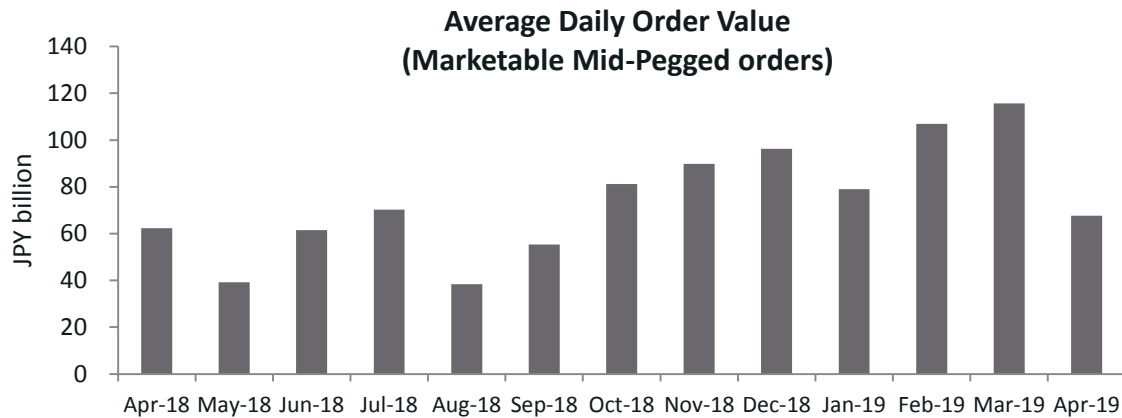
Execution Value Breakdown by Market Cap



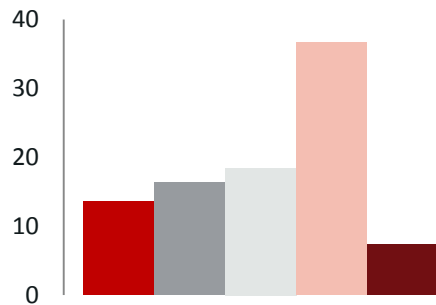
	Avg PI (bps)	Avg PI (spread)	Avg Order Resting Time (s)
TOPIX100	1.6	46.9%	144
M400	5.1	49.4%	29
Small	8.6	48.6%	97
JASDAQ & Mothers	19.1	44.5%	133
ETF & REITS	4.1	49.4%	43
Overall	5.6	48.9%	54

* 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

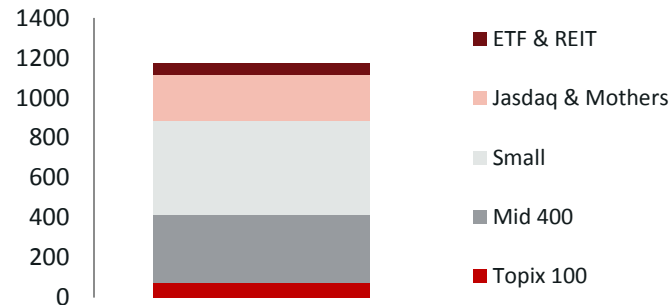


Average Order Size (Lot)



* Order size is weighted by resting time

Average Daily Active Symbol Count



**Top Symbols by Avg Order Lot Size
(TOPIX100)**

2502	ASAHIGHD	148
8604	NOMRAHD	126
2503	KIRIN HD	116
6326	KUBOTA	71
6367	DAIKINI	69
4507	SIONOGI	62
9502	CHUBPWR	50
8411	MIZUHO	48
8306	MUFG	41
9984	SOFTBNKG	34

**Top Symbols by Avg Order Lot Size
(Mid400)**

6136	OSG	123
8370	KIYO BK	65
9989	SUNDRUG	53
4689	YAHOO J	47
9832	AUTBACS	45
6141	DMG MORI	40
6436	AMANO	34
4547	KISSEI	30
2181	PERSOLHD	28
1883	MAEDARD	27

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