Jul 2026

AP Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- Trading activity softened across the region in July 2026, with average daily turnover (ADT) down 15% month-on-month (MoM), ending the uptrend seen through 1H26. Declines in July MoM were led by Korea and Taiwan (-24%), Australia (-17%) and Japan (-13%). Thailand was the sole outlier, with ADT up 20%.

- Korea remained volatile in July 2026 amid the recent KOSPI sell-off. Intraday spreads widened further, while intraday tick size fell to its lowest level in 12 months in July. NEXTRADE's market share declined from 19% to 14% in July, a year-to-date low.

- Intraday volatility and spreads remained consistent across other markets in July 2026.

AP MARKET STRUCTURE NEWS

Hong Kong Implements Phase 2 of Reduction of Minimum Spreads

On 3 August the Hong Kong Exchange (HKEX) rolled out phase 2 of its reduction in minimum spreads. The minimum spread for price band HK$0.5-10 was reduced from HK$0.01 to HK$0.005.
https://www.hkex.com.hk/Services/Trading/Securities/Overview/Trading-Mechanism/Reduction-of-Minimum-Spreads?sc_lang=en

Taiwan Stock Exchange Proposes Trading Reforms

Taiwan Stock Exchange (TWSE) unveiled an overhaul of its odd-lot trading system, to be implemented in two phases. The first phase, scheduled for December 7th 2026, will move the odd-lot market opening time from 9:10 AM to 9:00 AM, synchronizing it with the regular board lot market. The second phase, set for July 2027, will reduce the tick size for stocks priced above NT$1,000 from NT$5 to NT$1 and shorten the intraday odd-lot matching interval from 5 seconds to 1 second. The odd-lot trading board will retain its call auction mechanism.
https://www.taiwannews.com.tw/news/6397944

India Launches Close Auction Session

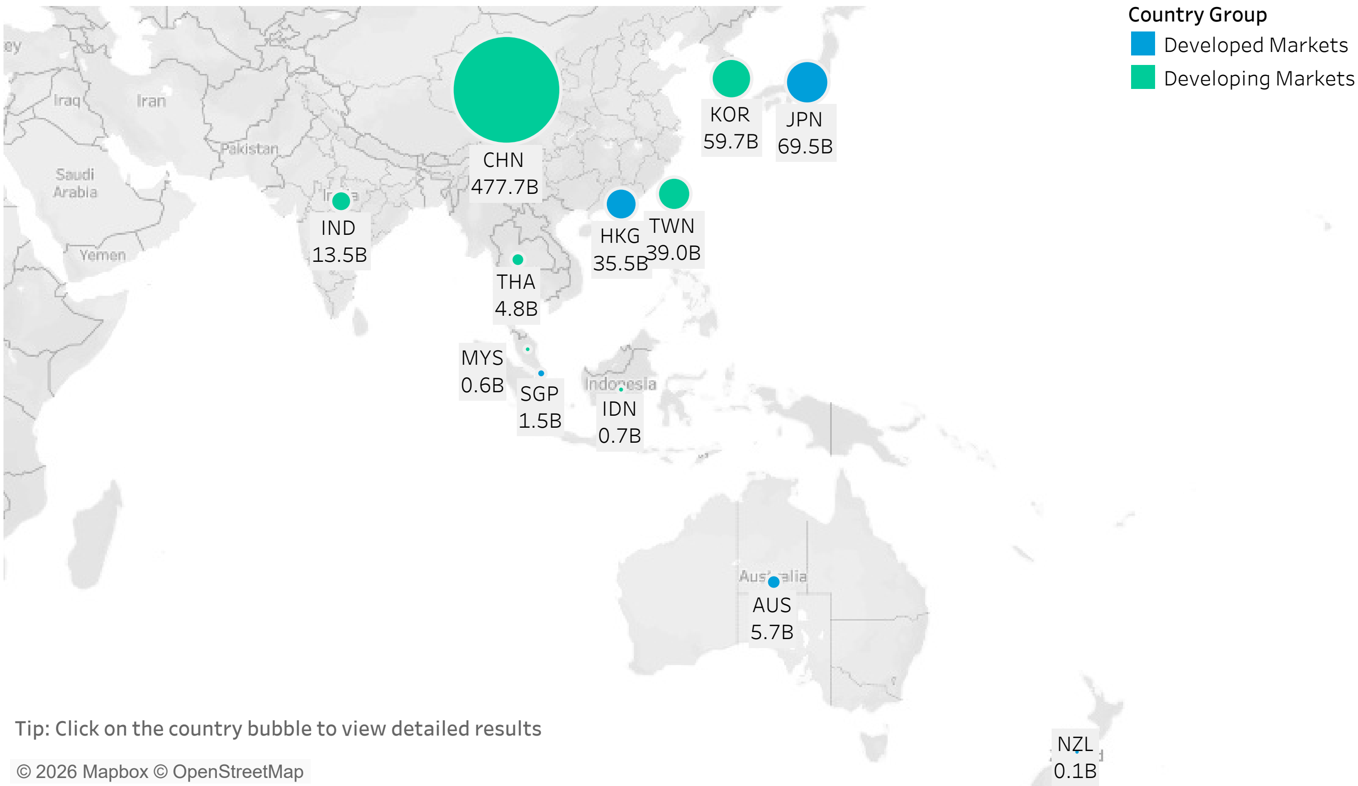
On August 3 India's National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) launched the closing auction session (CAS) for stocks with active futures and options contracts.

- Transition window: 3:15-3:20 pm IST – open orders are carried over; reference price calculated as the 3-3:15pm IST VWAP
- Order entry period: 3:20-3:25 pm IST – Order entry period - both market and limit orders can be entered
- Order entry period only for limit orders: 3:25-3:30 pm IST – only limit orders can be placed or modified, and market orders cannot be cancelled or modified. Window closes to place orders at randomized time between 3:28-3:30pm.
- Order matching: 3:30-3:35 pm IST

https://www.nseindia.com/static/products-services/closing-auction-session).

July 2026
APAC Market Structure Monthly

Average Daily Turnover (Notional USD)



Country Breakdowns

Hong Kong

China

Japan

Australia

South Korea

Taiwan

India

Thailand

New Zealand

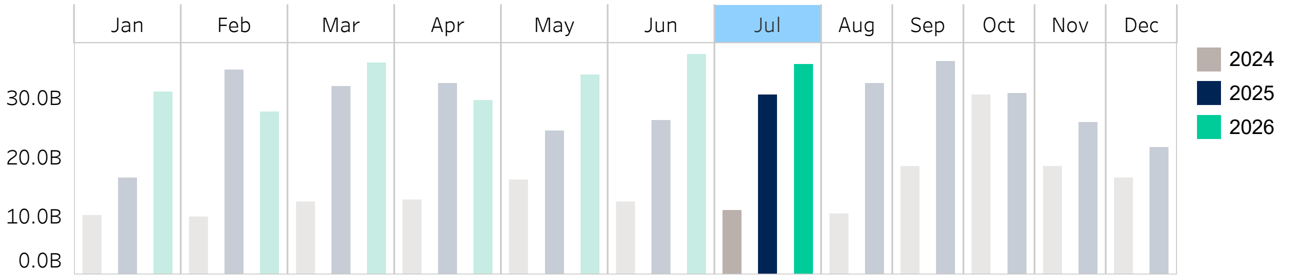
Singapore

Malaysia

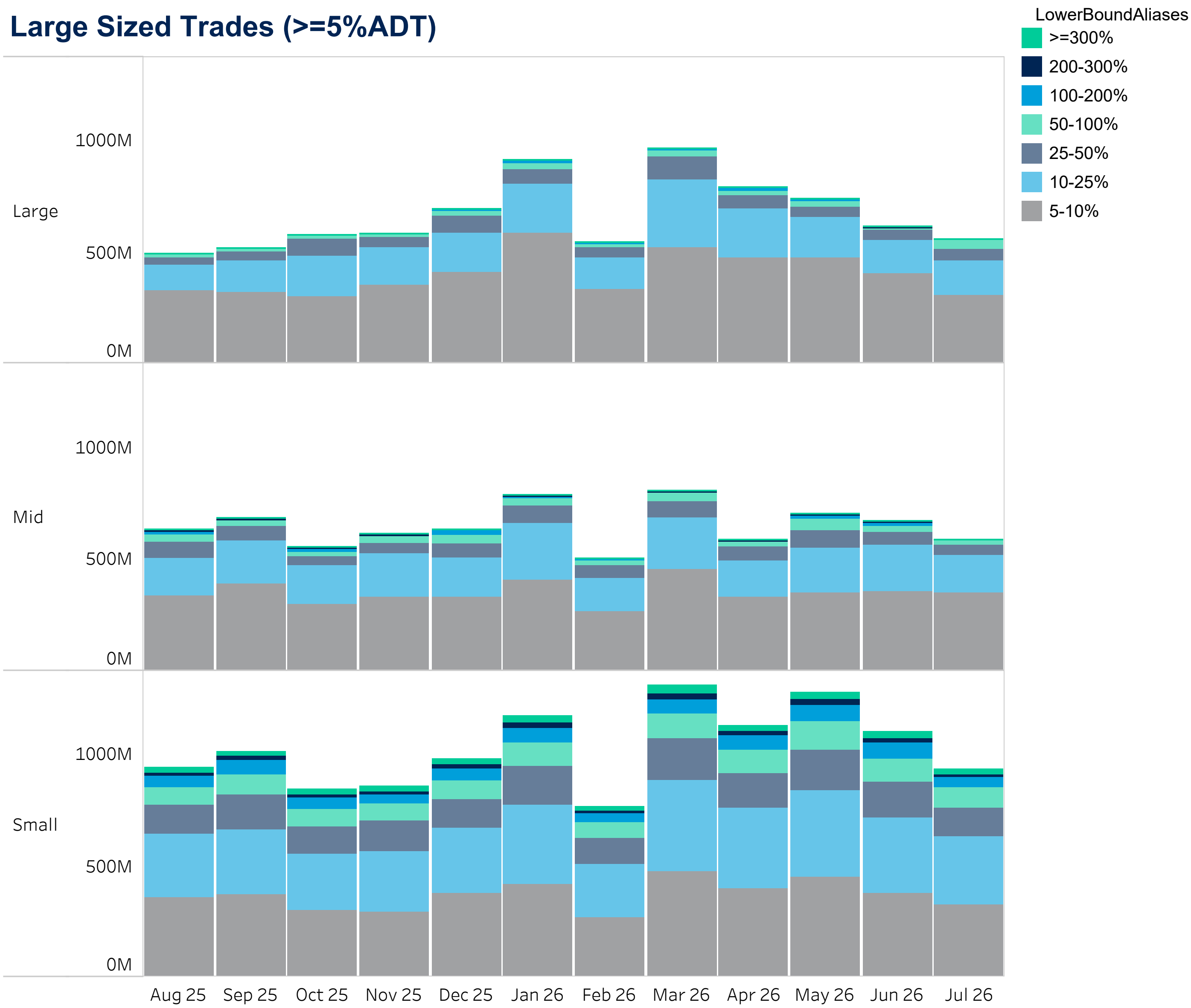
Indonesia

Hong Kong

Average Daily Turnover (Notional USD)



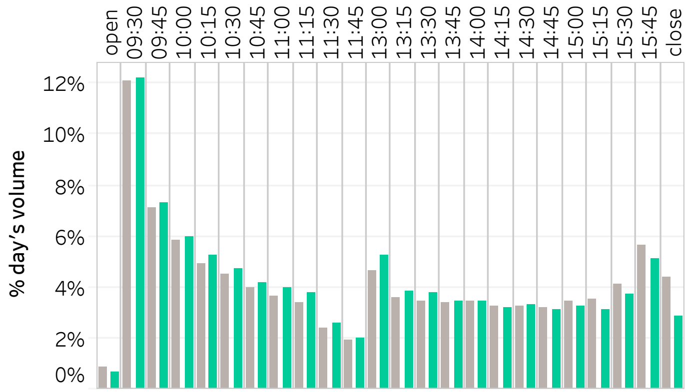
Large Sized Trades (>=5%ADT)



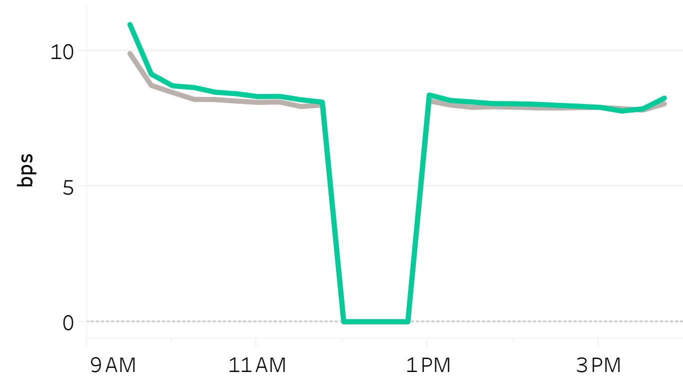
Source data: Virtu Financial

Hong Kong

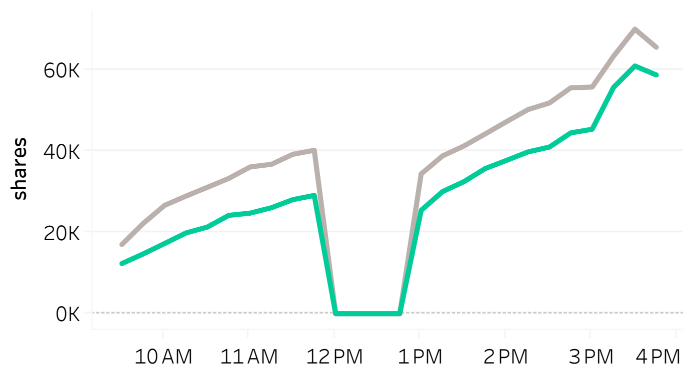
Volume Curve



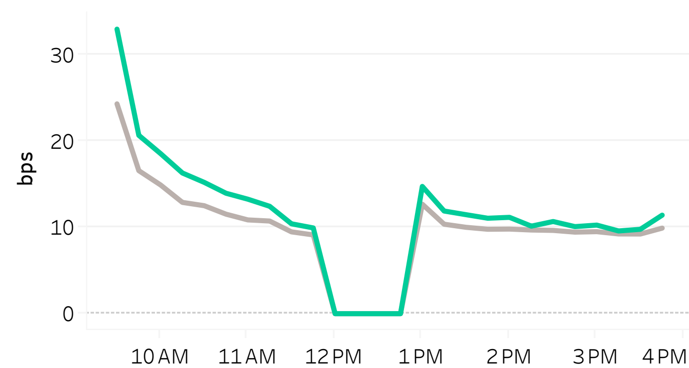
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	9.7	9.1	9.4	9.2	9.6	9.2	9.2	10.0	9.0	8.8	9.5	10.0
MidDay	8.6	8.1	8.0	8.1	8.2	7.7	7.5	8.2	7.9	7.6	7.8	8.3
LastHalfHour	8.5	8.1	7.9	8.0	8.1	7.8	7.4	8.1	7.8	7.5	7.8	8.1

One Minute Volatility Bps

FirstHalfHour	19.7	20.2	20.8	18.9	18.2	19.8	20.0	23.9	20.4	21.4	25.2	26.3
MidDay	10.1	10.2	10.2	9.8	9.8	10.1	9.7	11.3	9.4	10.6	11.7	11.4
LastHalfHour	9.8	9.7	9.7	9.6	9.6	9.6	9.3	10.5	9.5	10.0	11.4	10.7

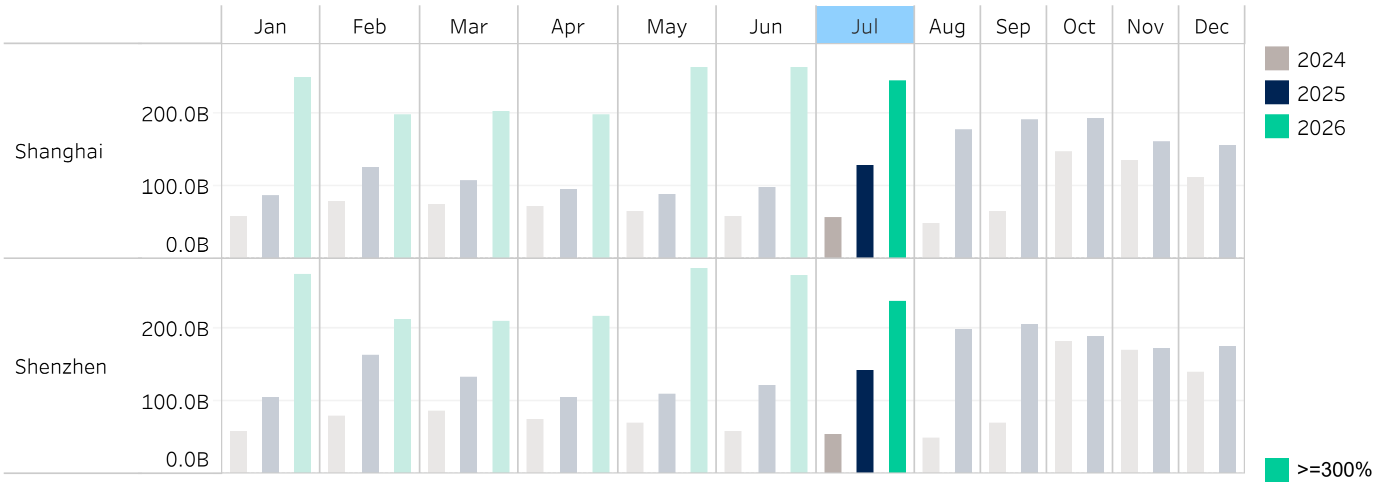
Quotesize (shares)

FirstHalfHour	28,940	25,180	23,567	22,575	18,880	18,426	17,961	18,478	19,733	16,543	14,016	13,409
MidDay	48,287	44,658	40,567	42,871	39,917	39,134	35,057	35,949	38,871	31,151	28,181	28,065
LastHalfHour	85,855	75,004	70,623	75,166	68,736	67,290	66,916	60,730	65,745	61,429	59,255	59,902

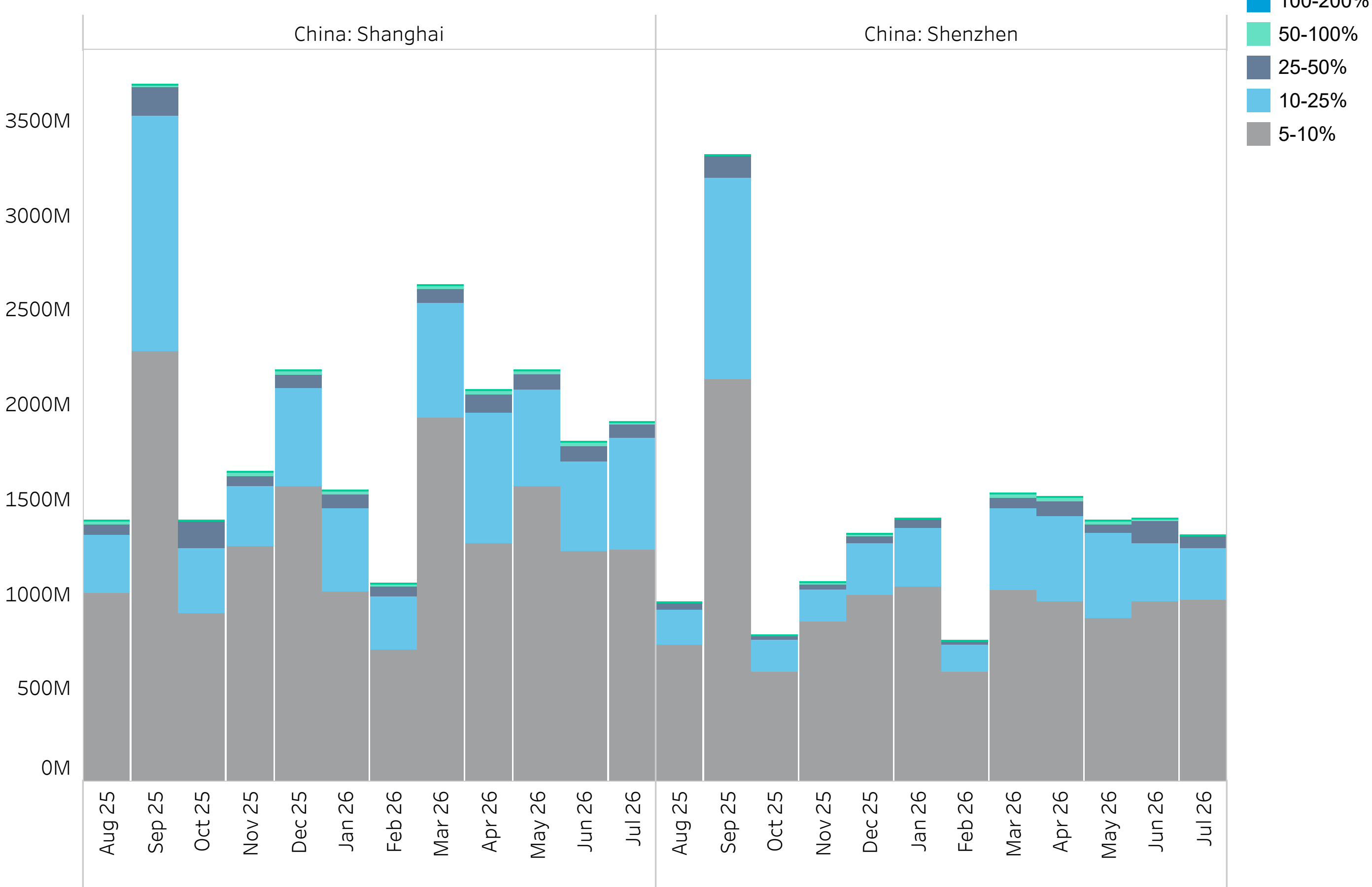
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

China

Average Daily Turnover (Notional USD)



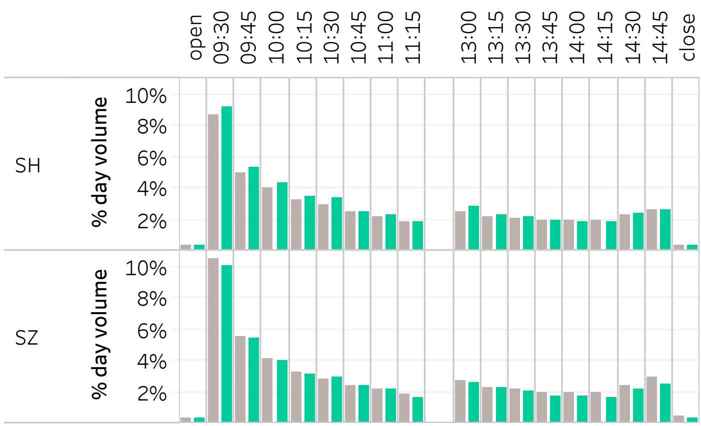
Large Sized Trades (>=5%ADT)



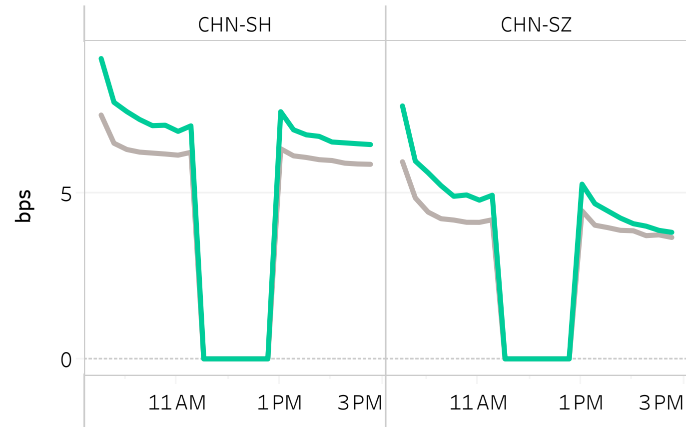
Source data: Virtu Financial

China

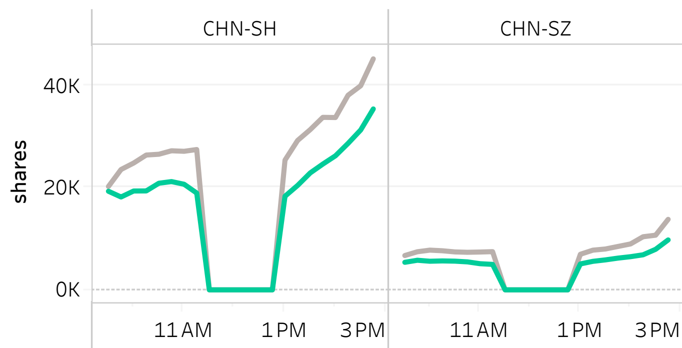
Volume Curve



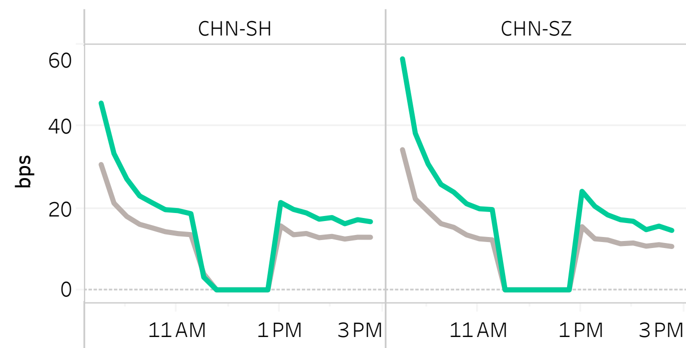
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	CHN-SH							CHN-SZ						
	Jan	Feb	Mar	Apr	May	Jun	Jul	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHo..	7.0	6.9	7.1	6.8	7.1	8.0	8.6	5.4	5.1	5.4	5.1	5.4	6.2	6.9
MidDay	6.2	6.0	6.1	5.9	6.2	6.8	7.1	4.1	3.8	3.9	3.7	4.0	4.6	5.0
LastHalfHo..	6.1	5.8	5.9	5.7	5.9	6.4	6.6	3.8	3.3	3.5	3.2	3.4	3.8	4.0

One Minute Volatility Bps

FirstHalfHo..	27.7	25.5	29.2	24.4	29.2	35.8	39.2	29.8	25.9	29.8	27.3	32.2	39.4	46.5
MidDay	15.2	13.2	14.3	13.3	15.0	17.9	19.5	15.1	11.7	13.0	11.8	14.8	18.0	21.2
LastHalfHo..	14.5	12.5	13.9	11.7	14.2	16.2	17.7	12.5	9.8	11.4	10.1	12.3	14.1	16.0

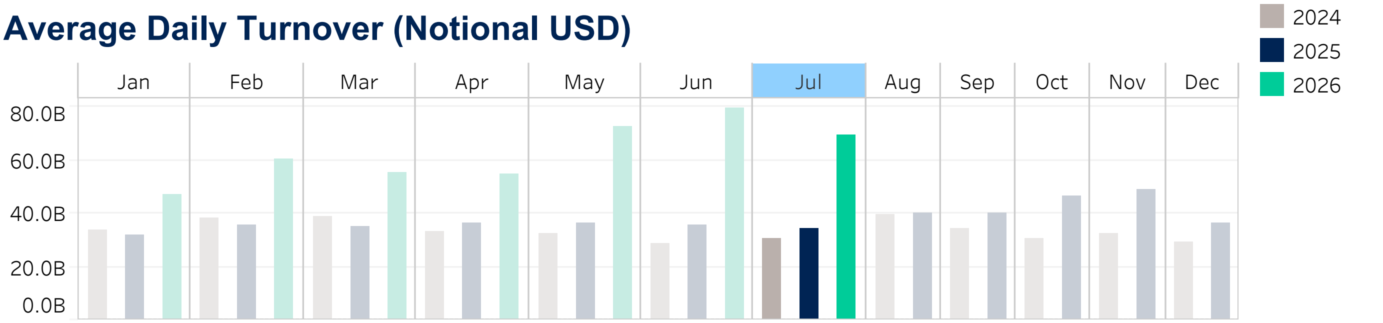
Quotesize (shares)

FirstHalfHo..	25,370	21,505	19,574	22,301	24,752	20,406	18,723	7,259	6,350	6,143	6,782	7,231	6,429	5,682
MidDay	29,544	27,920	22,551	27,056	28,745	23,728	20,092	7,824	7,236	6,362	7,090	7,521	6,872	5,627
LastHalfHo..	43,260	44,708	33,660	45,154	42,266	33,747	32,106	10,908	11,925	9,933	12,003	11,300	9,932	8,405

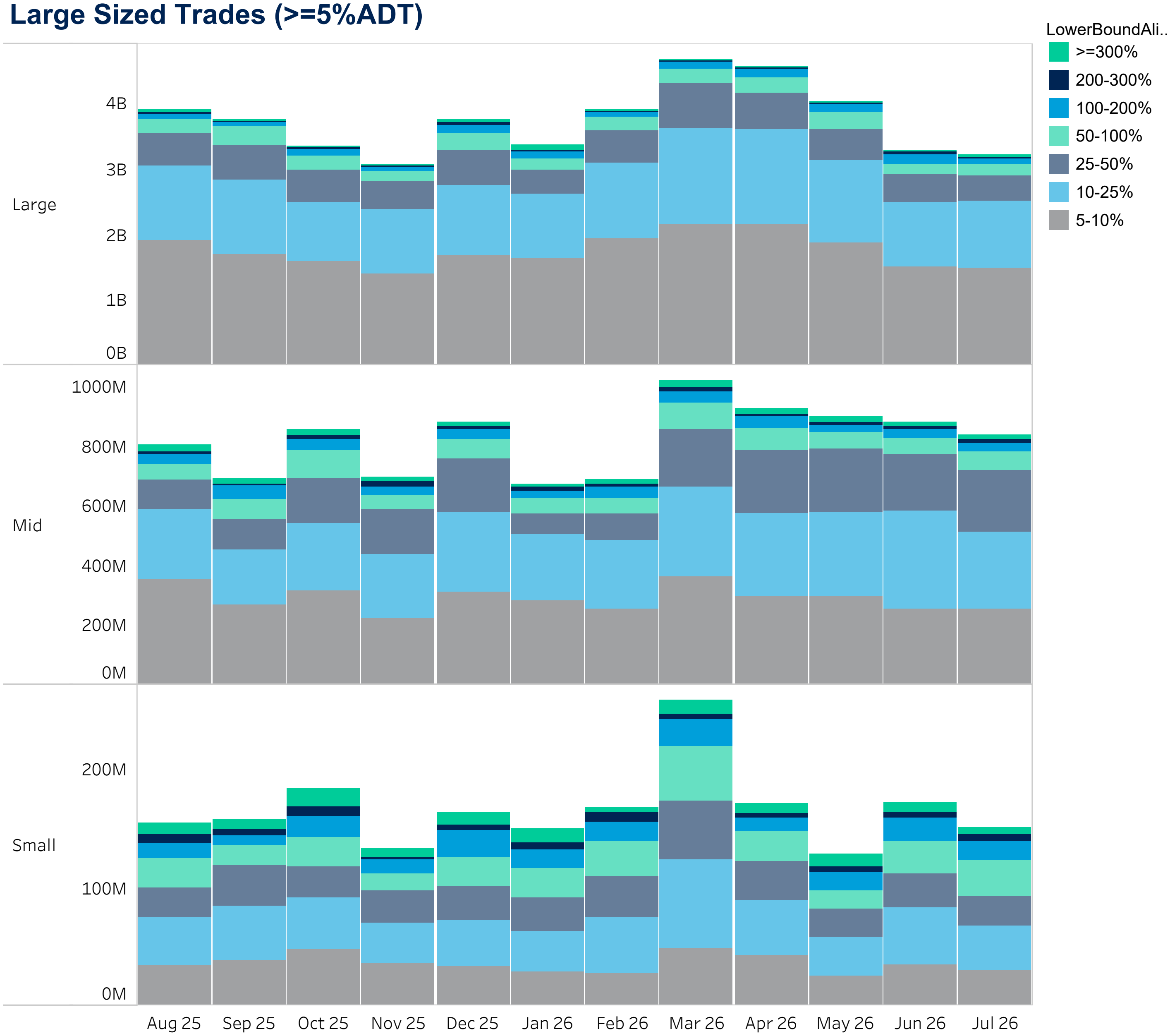
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Japan

Average Daily Turnover (Notional USD)



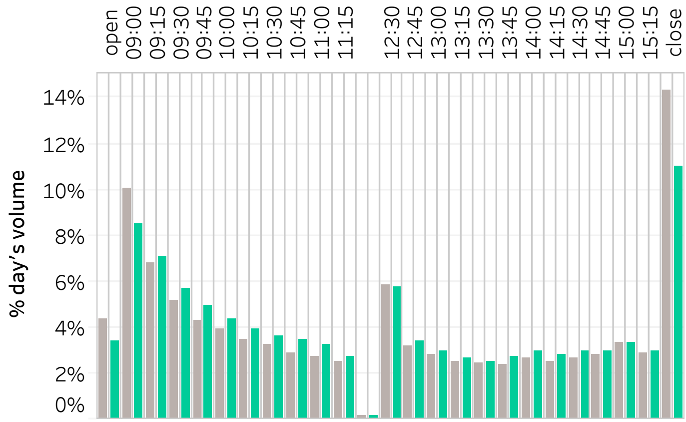
Large Sized Trades (>=5%ADT)



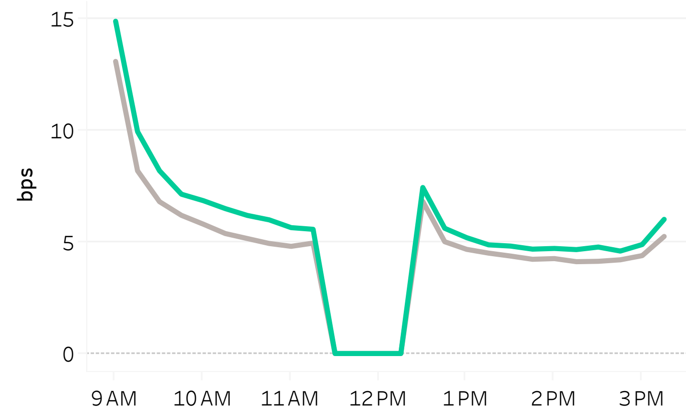
Source data: Virtu Financial

Japan

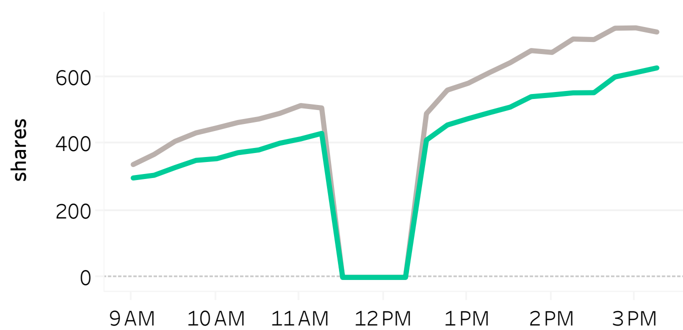
Volume Curve



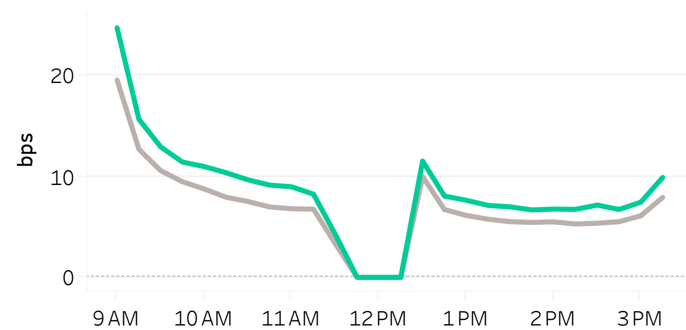
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	10.7	9.8	10.0	10.8	9.9	10.8	11.9	12.3	11.2	12.9	13.4	12.5
MidDay	5.1	4.6	4.5	4.9	4.5	4.7	5.3	5.7	4.9	5.4	5.7	5.7
LastHalfHour	4.8	4.6	4.6	4.9	4.6	4.7	5.0	5.1	4.7	5.3	5.4	5.5

One Minute Volatility Bps

FirstHalfHour	14.9	14.1	15.1	16.3	14.3	16.0	18.6	20.0	16.6	22.2	21.8	20.0
MidDay	6.3	5.9	6.3	7.1	5.7	6.3	7.6	8.0	6.6	8.3	8.4	8.2
LastHalfHour	6.5	6.7	7.0	7.8	6.4	7.1	8.0	8.3	7.1	8.7	8.8	8.7

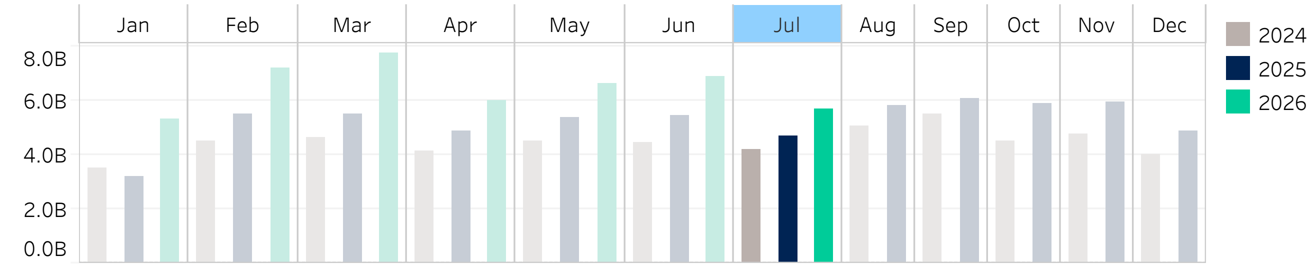
Quotesize (shares)

FirstHalfHour	374.4	380.0	347.0	342.6	360.8	367.2	343.9	314.5	330.1	318.9	300.1	302.4
MidDay	538.6	576.6	524.2	493.7	563.0	542.7	479.4	433.8	486.6	472.2	424.7	426.5
LastHalfHour	831.7	746.9	714.8	686.0	777.4	800.2	759.9	677.3	731.2	686.9	607.6	618.8

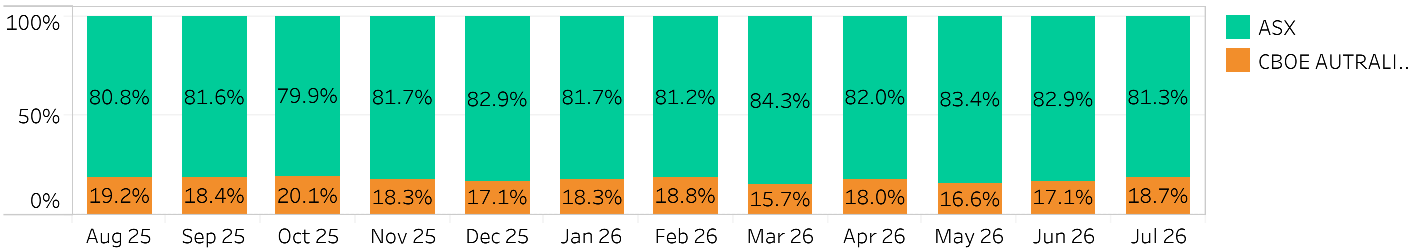
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Australia

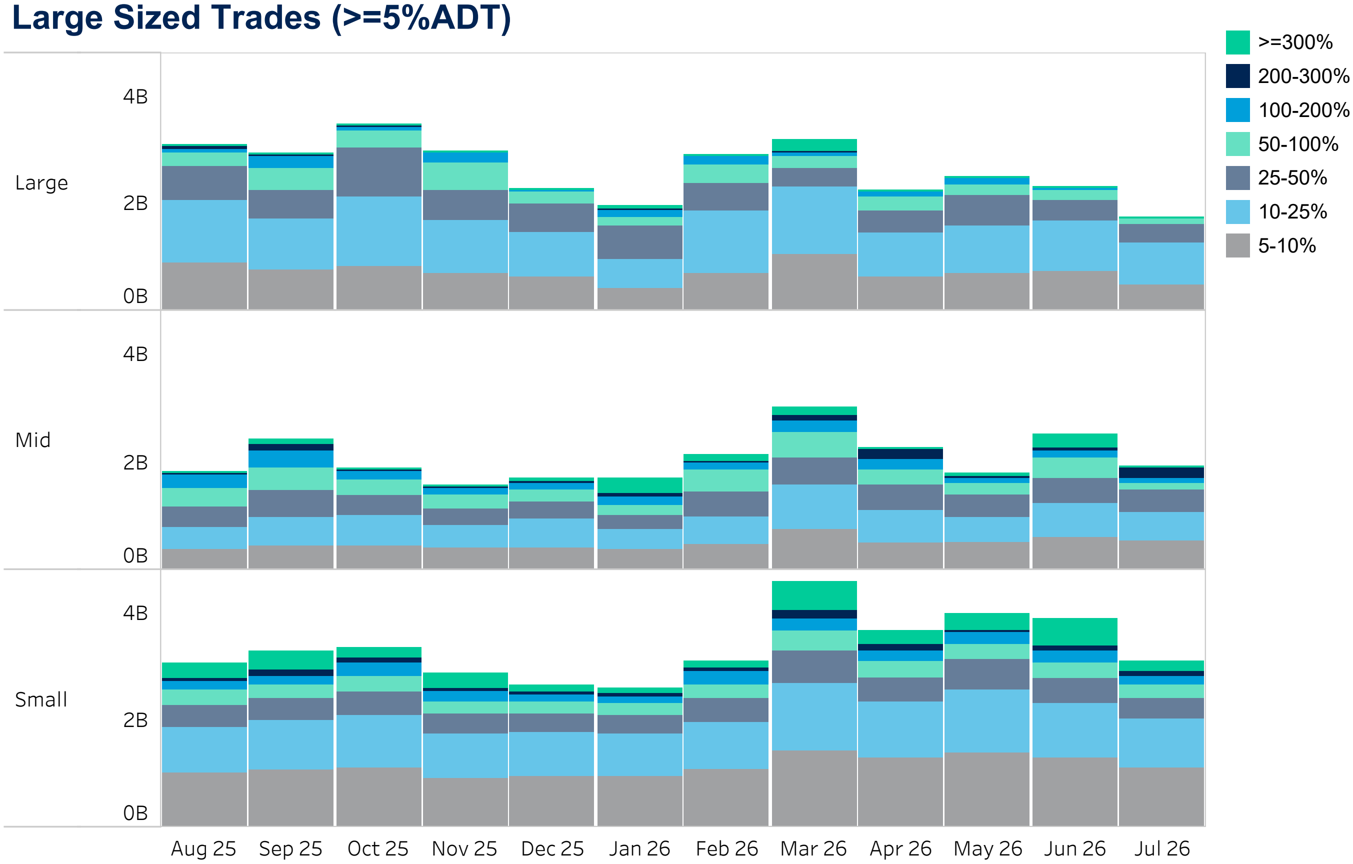
Average Daily Turnover (Notional USD)



Venue % Market Share (Notional USD)



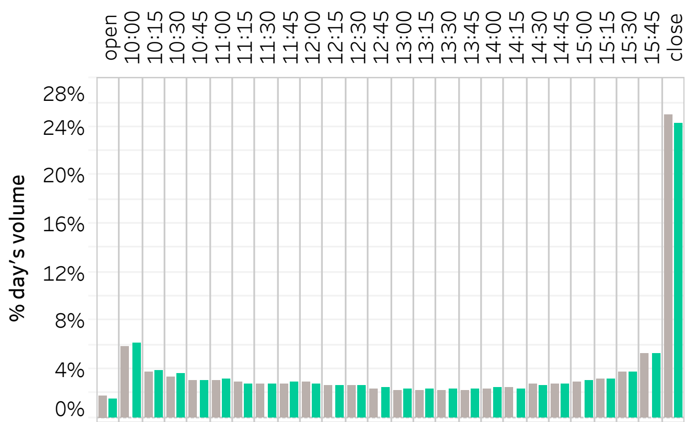
Large Sized Trades (>=5%ADT)



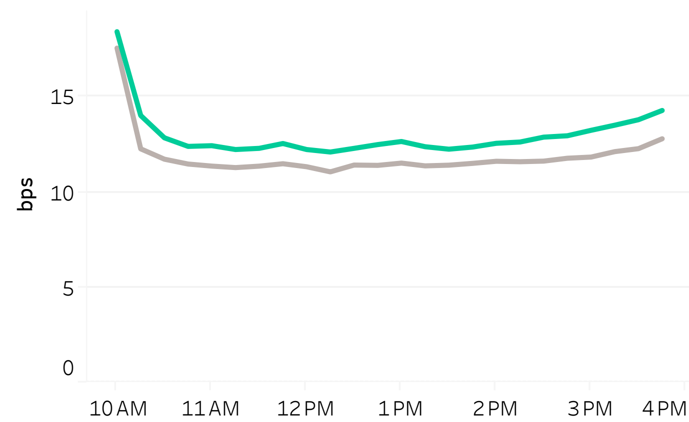
Source data: Virtu Financial

Australia

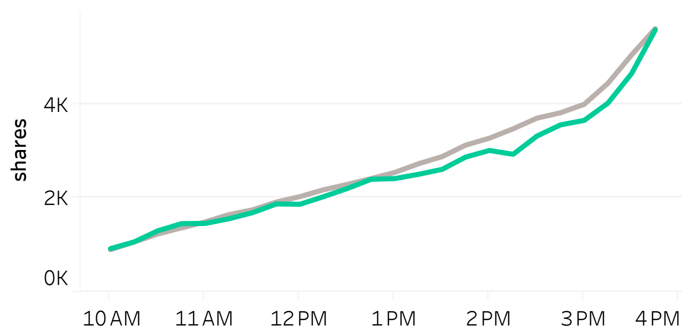
Volume Curve



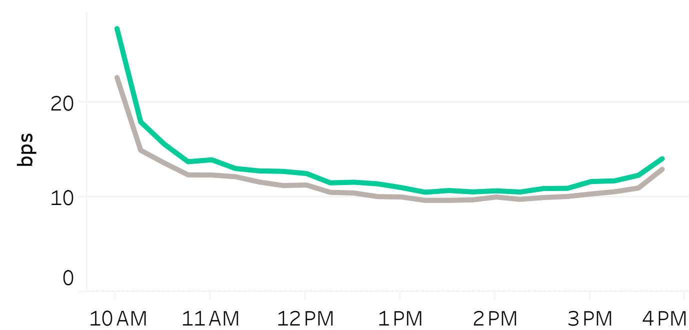
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	35.5	37.6	33.6	38.8	38.5	34.2	39.9	44.5	40.9	36.4	38.9	39.3
MidDay	10.9	11.0	10.5	10.6	10.5	10.6	12.2	13.6	13.0	12.6	12.6	12.6
LastHalfHour	12.1	12.1	11.9	12.3	12.2	11.8	13.0	14.3	13.9	14.3	14.3	14.1

One Minute Volatility Bps

FirstHalfHour	34.0	34.3	32.3	40.3	39.7	35.0	41.4	48.9	46.8	41.0	43.5	41.3
MidDay	10.6	10.1	10.0	10.3	10.0	10.5	12.3	13.0	11.9	11.6	12.0	11.7
LastHalfHour	11.9	11.7	11.5	12.1	11.6	11.7	13.4	14.2	13.5	13.2	13.5	13.2

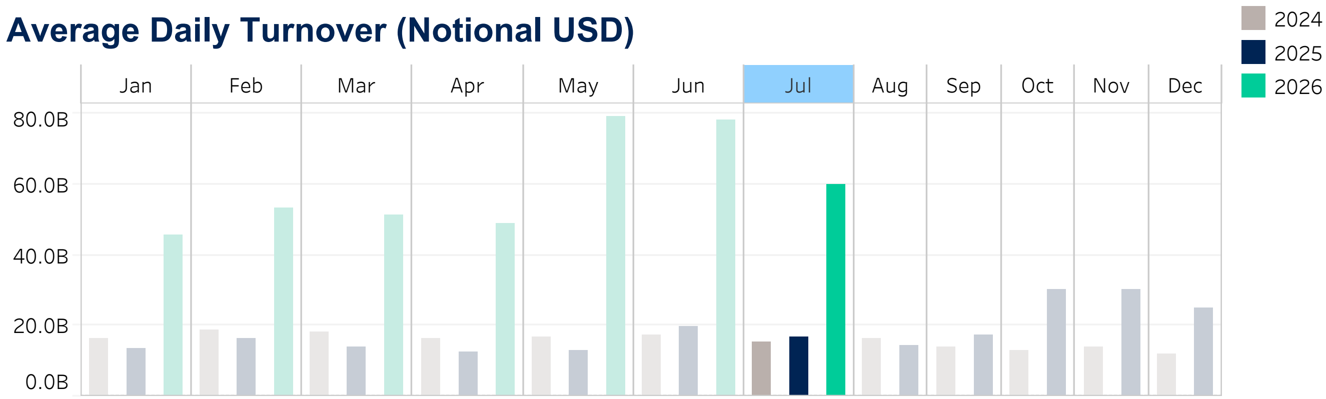
Quotesize (shares)

FirstHalfHour	1,899	1,876	1,740	1,689	1,511	1,362	1,541	1,868	1,742	1,546	1,833	1,504
MidDay	3,095	3,534	2,404	2,270	2,223	1,845	1,808	2,323	2,363	2,492	2,335	2,279
LastHalfHour	6,451	7,296	5,906	5,667	5,365	4,627	4,147	4,886	4,824	5,250	5,097	5,067

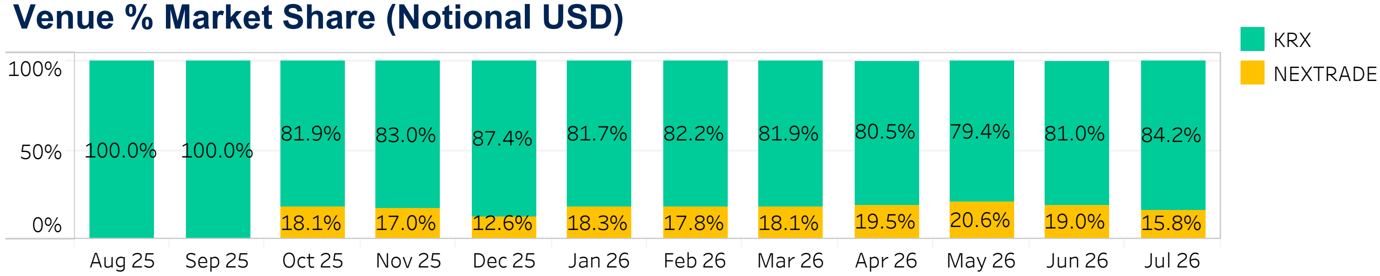
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Korea

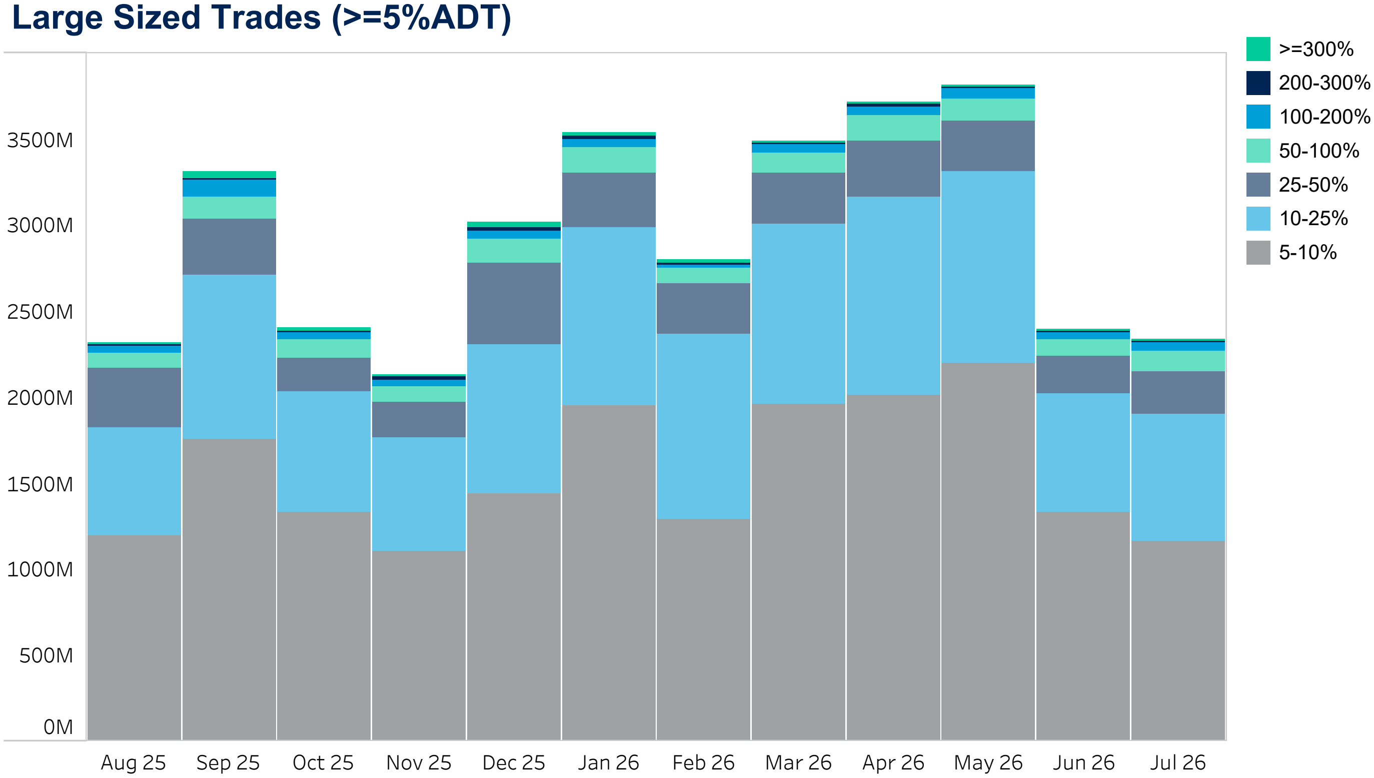
Average Daily Turnover (Notional USD)



Venue % Market Share (Notional USD)



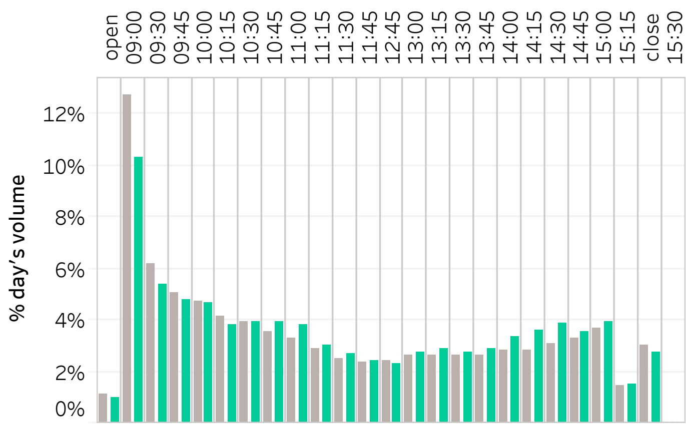
Large Sized Trades (>=5%ADT)



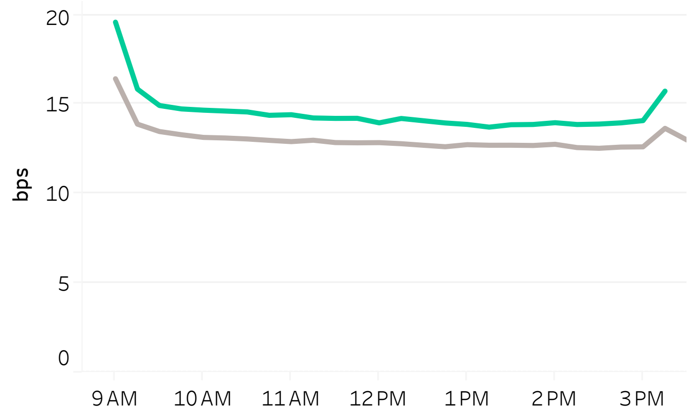
Source data: Virtu Financial

Korea

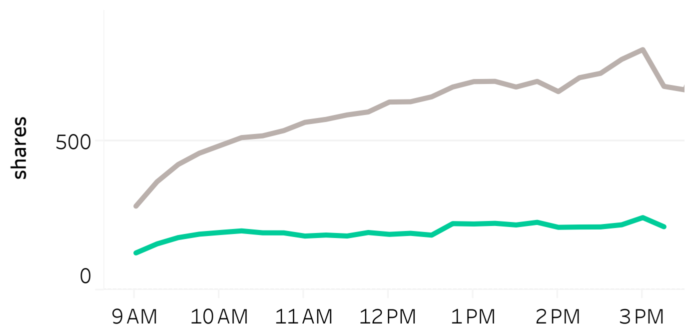
Volume Curve



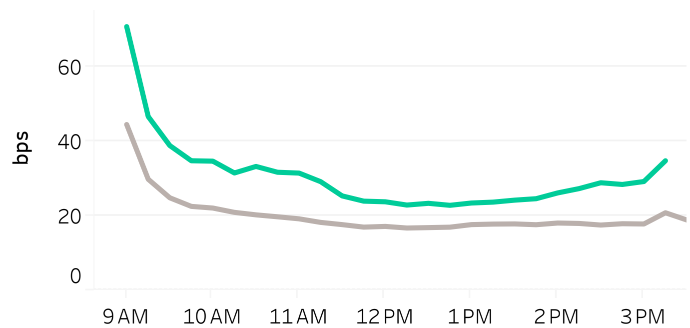
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	13.6	14.1	14.9	16.4	15.4	15.2	15.5	16.1	14.3	15.7	17.7	17.5
MidDay	11.6	12.4	12.5	13.1	12.8	12.9	12.9	13.5	12.4	12.9	13.8	14.1
LastHalfHour	11.8	12.6	12.5	12.7	12.9	13.1	13.2	13.7	12.4	12.9	14.3	14.3

One Minute Volatility Bps

FirstHalfHour	28.9	24.4	33.9	38.2	30.1	38.5	41.6	43.4	35.6	49.3	58.3	56.8
MidDay	15.5	15.4	17.3	18.4	16.8	18.4	19.0	20.8	18.1	21.1	24.0	28.1
LastHalfHour	16.3	16.3	17.9	18.1	18.2	19.0	19.6	22.9	19.1	21.8	28.2	30.3

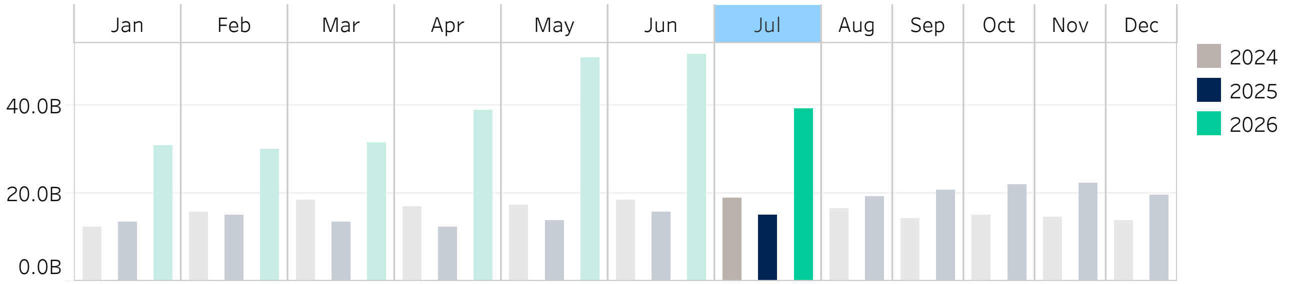
Quotesize (shares)

FirstHalfHour	311.6	413.4	386.6	311.4	313.8	352.7	332.3	257.0	329.4	246.7	163.8	140.9
MidDay	557.6	812.8	719.0	658.3	660.6	710.6	648.1	393.4	567.3	377.0	275.9	197.8
LastHalfHour	777.1	1,006.1	872.1	811.4	777.2	853.2	754.7	482.2	730.6	523.0	328.2	233.1

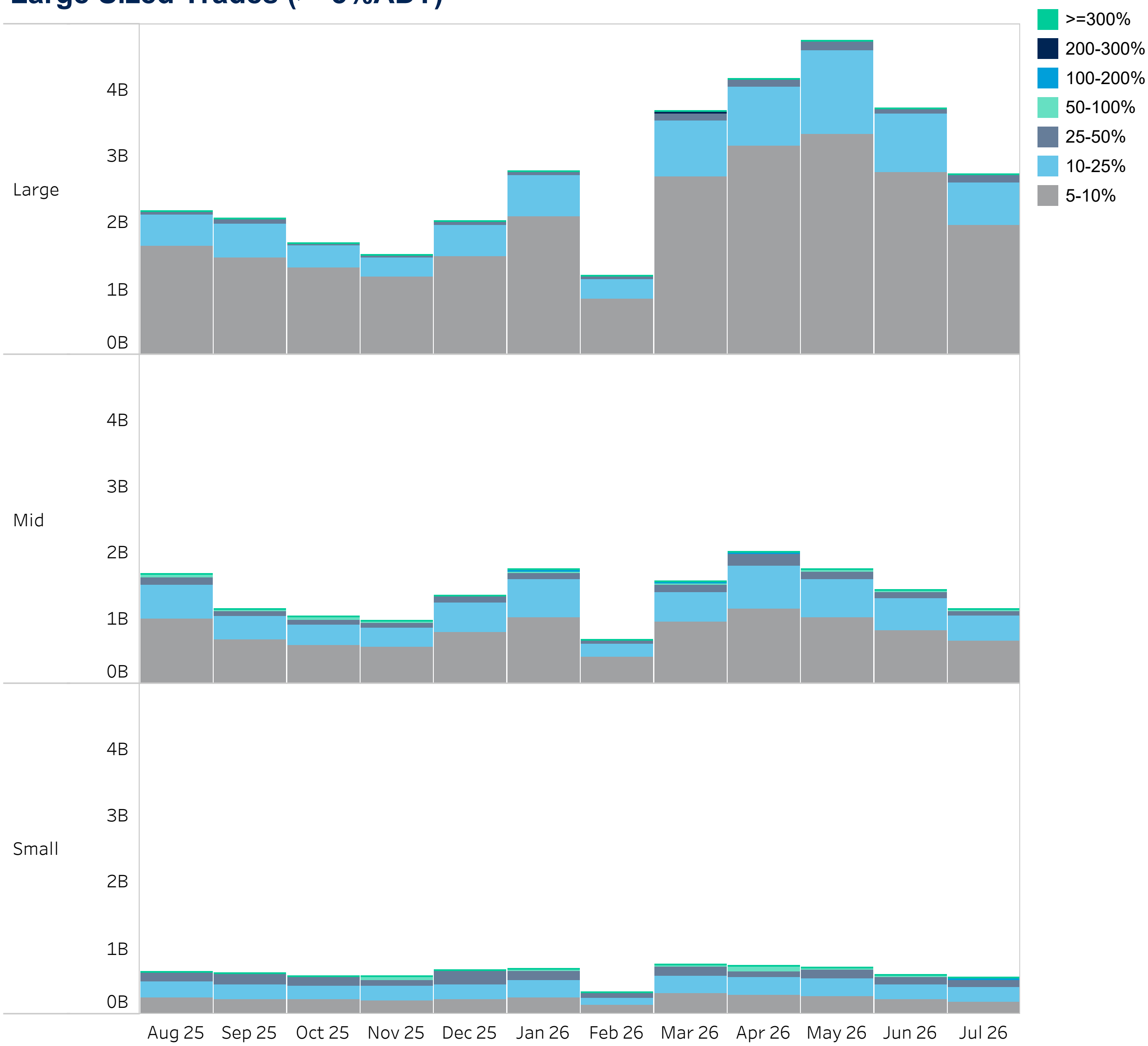
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Taiwan

Average Daily Turnover (Notional USD)



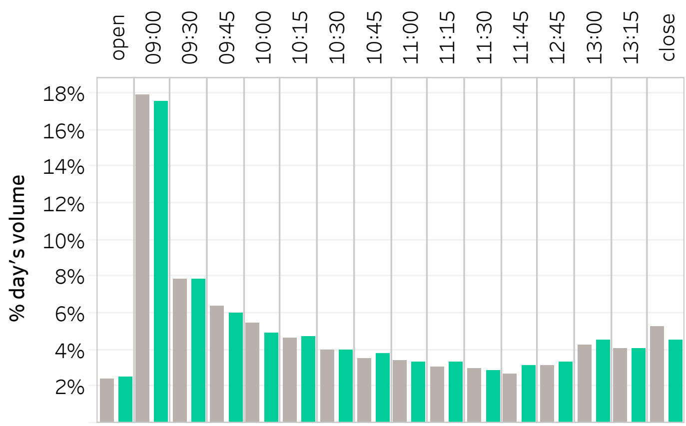
Large Sized Trades (>=5%ADT)



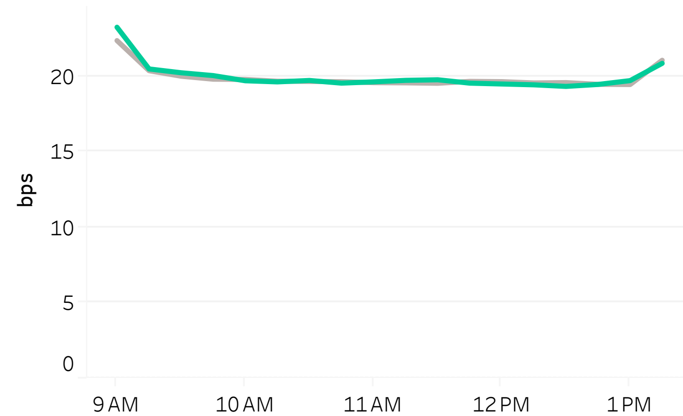
Source data: Virtu Financial

Taiwan

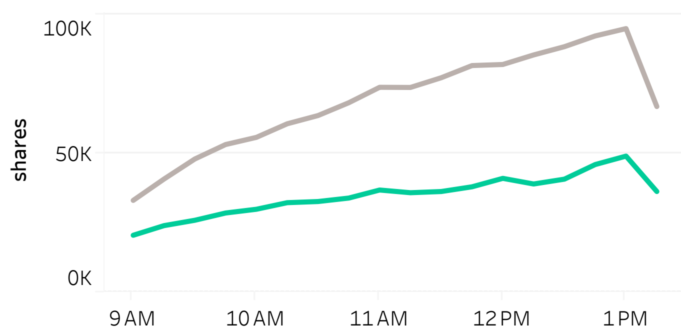
Volume Curve



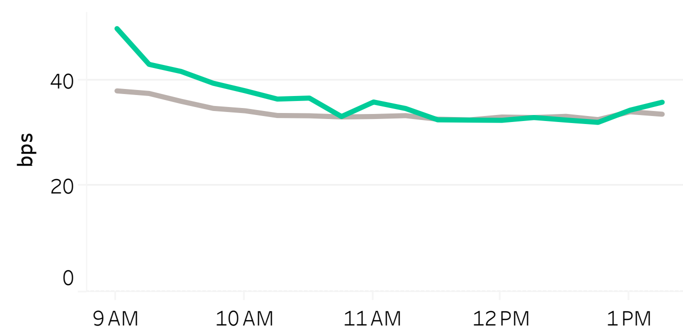
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	21.8	21.9	22.8	22.5	21.8	21.3	21.3	21.6	20.9	20.2	21.2	21.7
MidDay	19.3	19.9	20.8	20.8	20.5	19.7	19.2	19.3	19.3	18.9	19.9	19.8
LastHalfHour	19.9	20.3	21.4	21.0	21.2	20.5	20.4	19.9	19.8	19.1	20.1	20.5

One Minute Volatility Bps

FirstHalfHour	36.4	35.0	36.2	38.0	33.9	37.9	39.4	44.2	39.7	43.4	45.8	47.3
MidDay	34.0	32.3	33.2	33.5	31.7	33.6	30.7	35.5	31.2	33.7	36.5	35.1
LastHalfHour	34.2	32.8	33.9	33.1	32.6	34.0	31.7	35.1	31.7	34.1	36.2	36.0

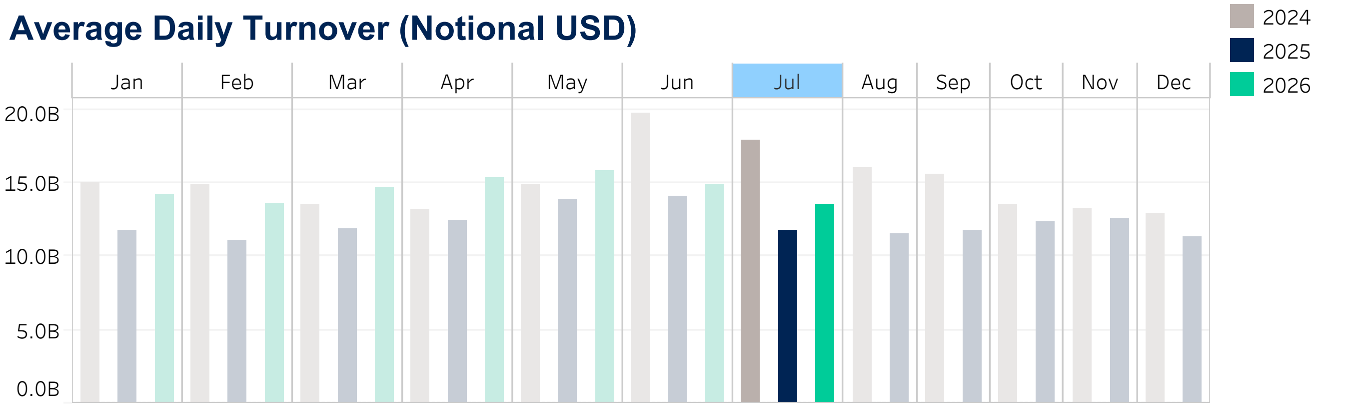
Quotesize (shares)

FirstHalfHour	46,517	45,474	47,323	35,208	37,520	38,928	33,975	29,688	34,653	34,550	28,739	21,947
MidDay	98,613	95,422	96,548	72,157	76,400	75,173	68,756	58,502	65,029	62,581	47,942	35,360
LastHalfHour	95,965	97,460	100,654	85,224	78,927	81,742	74,352	69,310	73,062	78,872	59,133	41,765

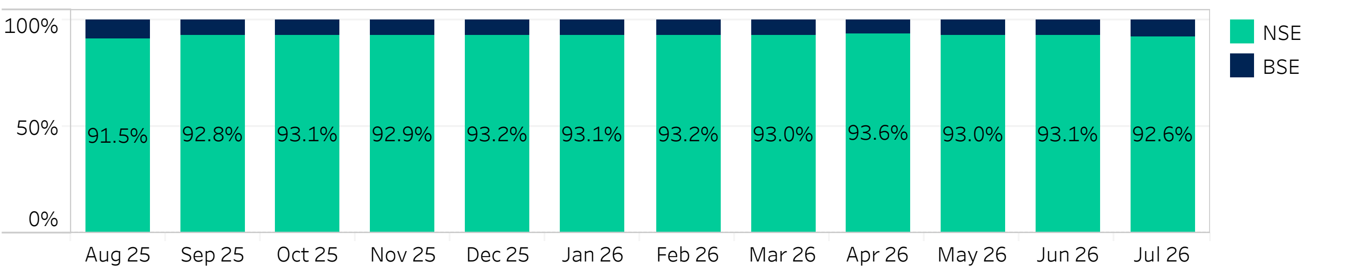
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

India

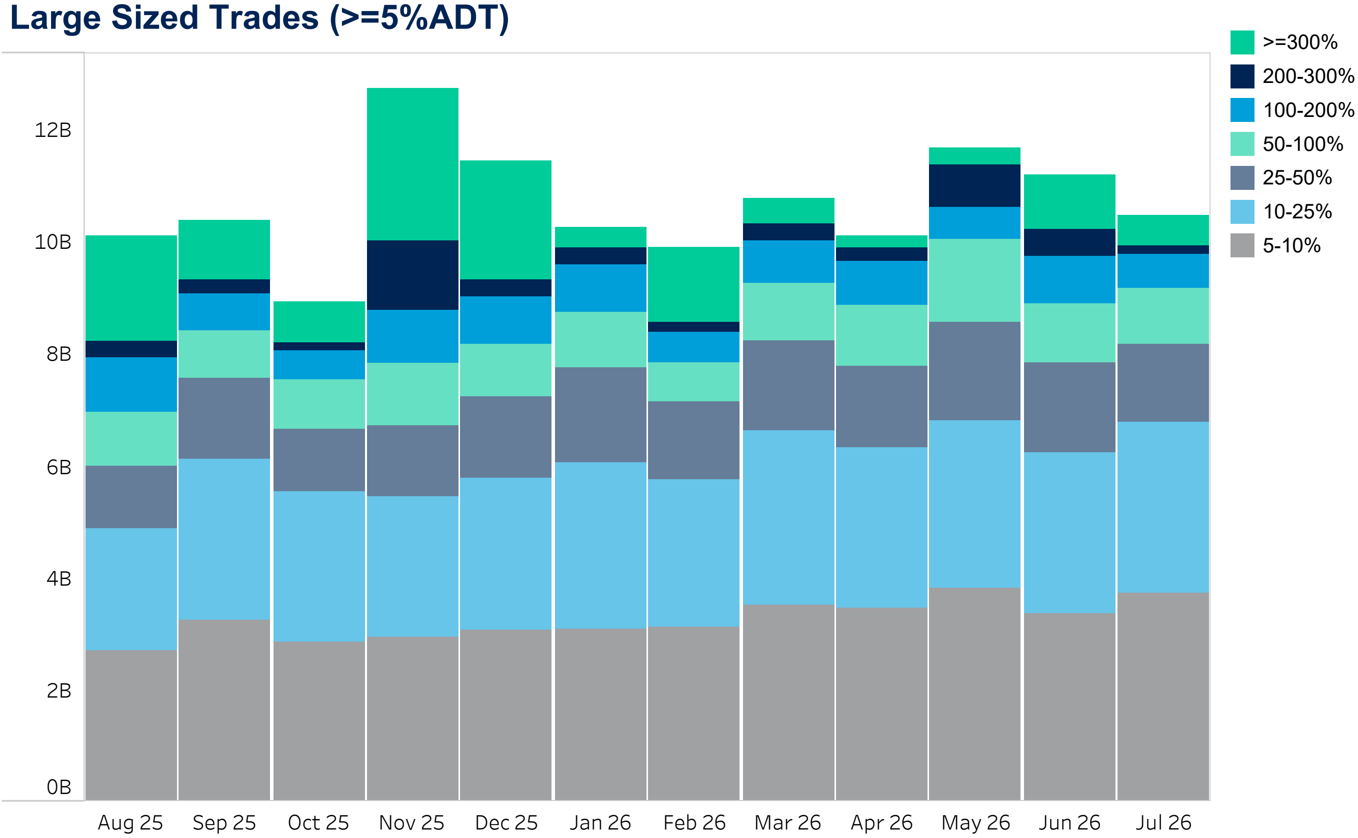
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)



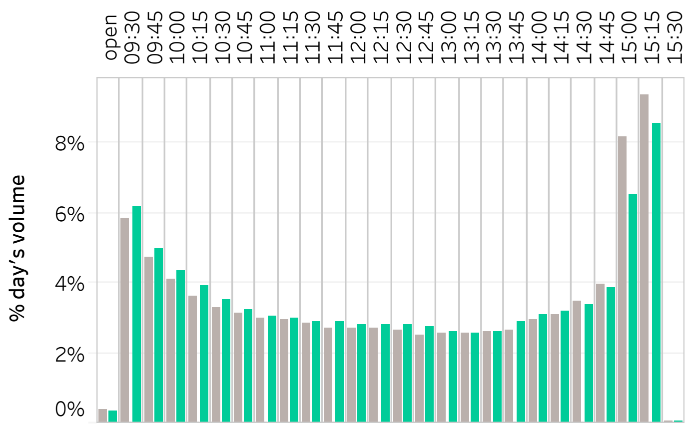
Large Sized Trades (>=5%ADT)



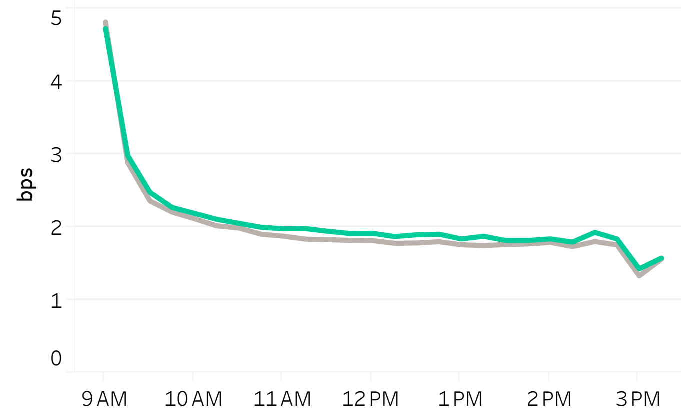
Source data: Virtu Financial

India

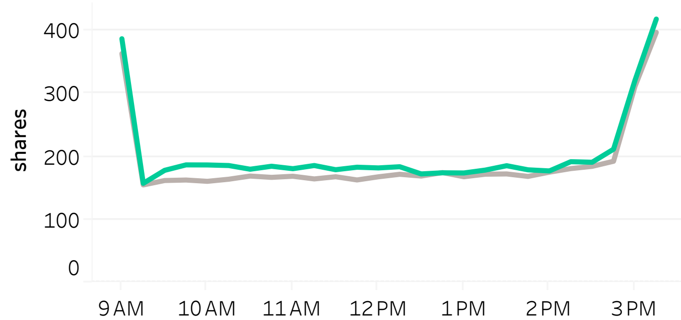
Volume Curve



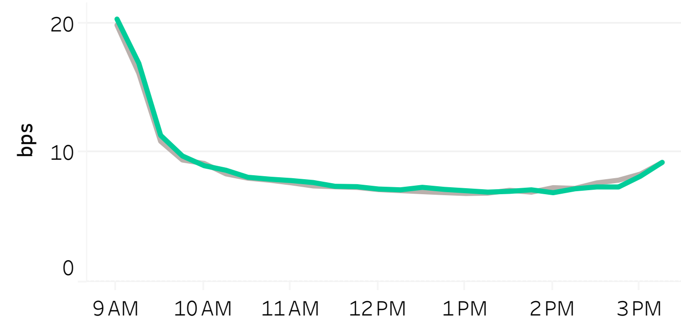
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	2.8	2.8	2.8	2.8	2.7	3.0	3.2	3.2	3.2	3.2	3.2	3.0
MidDay	1.7	1.7	1.8	1.7	1.8	1.9	2.0	2.0	1.8	2.0	1.9	1.9
LastHalfHour	1.3	1.3	1.4	1.3	1.4	1.5	1.6	1.7	1.7	1.7	1.6	1.5

One Minute Volatility Bps

FirstHalfHour	15.3	14.2	15.8	14.8	13.5	17.4	17.5	22.6	21.1	19.8	17.6	16.7
MidDay	6.8	6.6	7.2	6.6	6.6	7.9	7.9	10.2	8.4	8.0	7.7	7.4
LastHalfHour	8.5	8.3	8.2	8.1	7.9	9.2	9.6	13.0	10.4	10.2	10.4	9.0

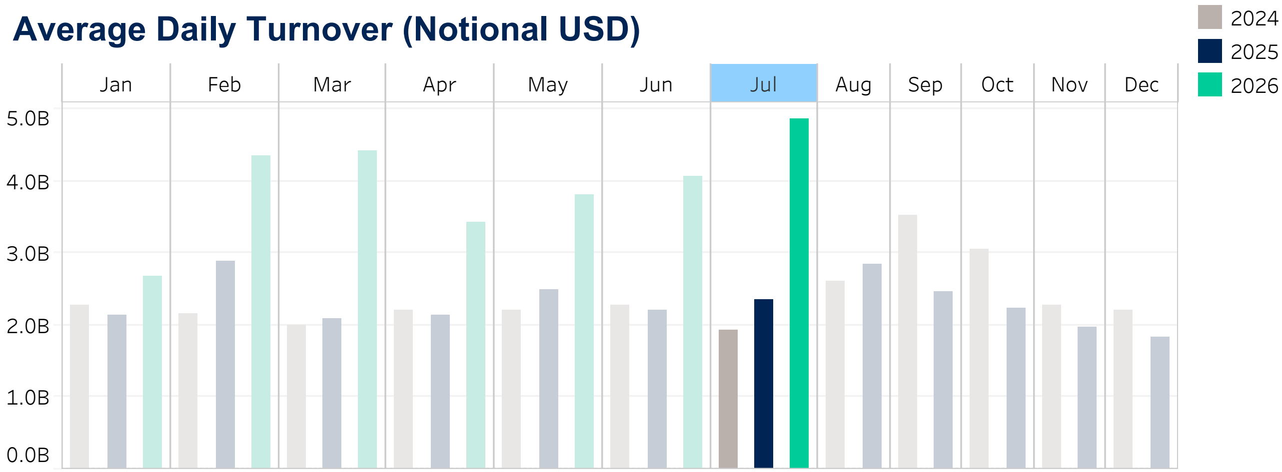
Quotesize (shares)

FirstHalfHour	147.2	162.3	152.0	156.2	159.1	172.8	168.9	164.7	170.4	157.6	174.3	163.8
MidDay	161.5	171.6	161.6	178.9	167.8	167.8	181.7	163.7	177.2	171.8	182.0	182.4
LastHalfHour	385.1	392.6	364.1	437.4	355.8	352.1	410.9	344.9	367.9	366.4	368.0	373.6

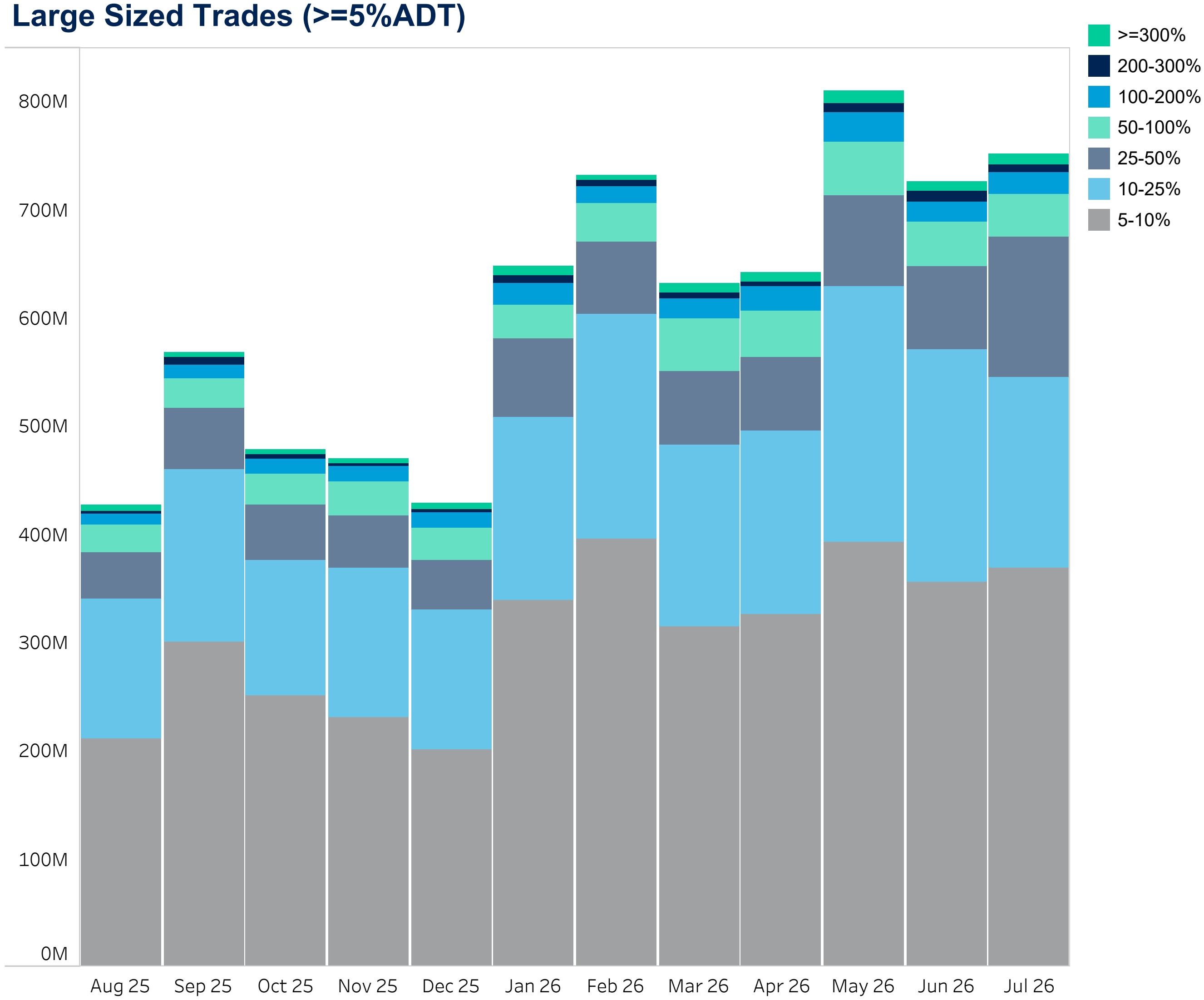
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Thailand

Average Daily Turnover (Notional USD)



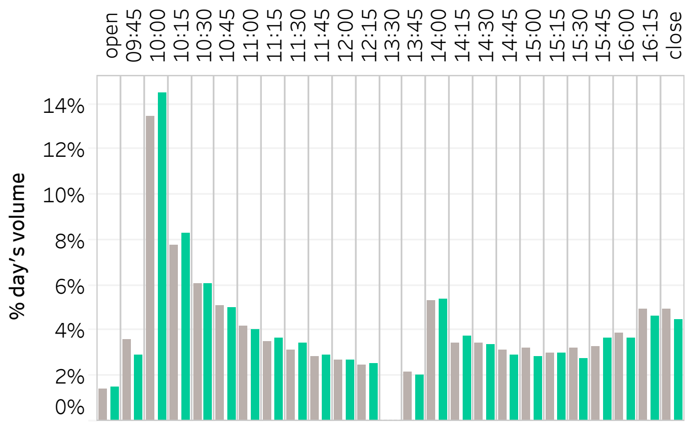
Large Sized Trades (>=5%ADT)



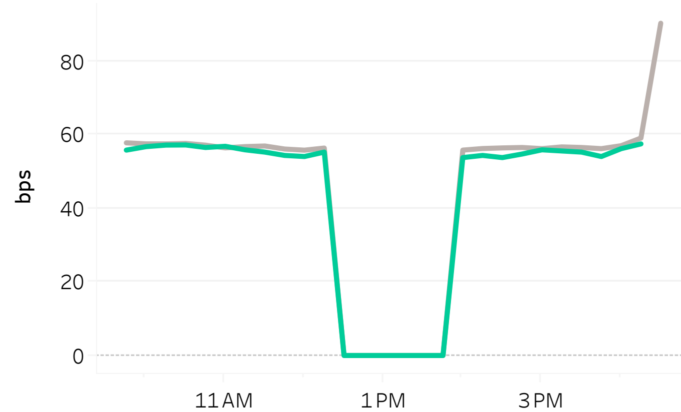
Source data: Virtu Financial

Thailand

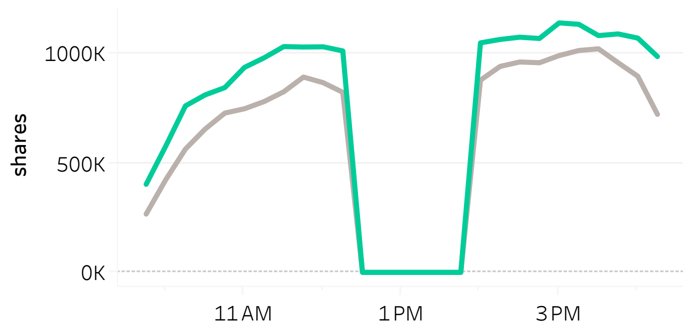
Volume Curve



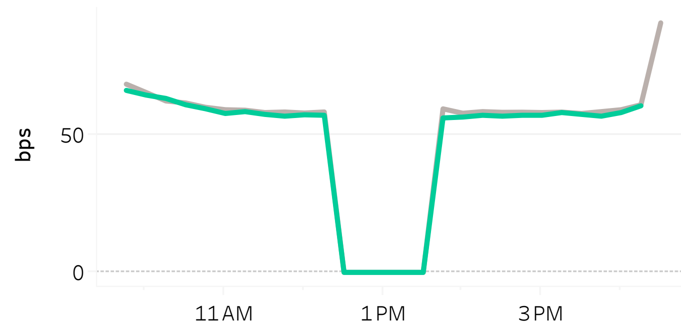
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	57.0	57.6	56.7	59.6	57.8	58.7	58.3	61.7	56.5	56.9	57.4	55.7
MidDay	55.4	57.0	56.3	57.6	58.0	59.0	53.9	54.8	54.5	56.3	57.3	55.1
LastHalfHour	57.3	58.0	58.3	59.3	59.0	59.0	55.3	56.0	57.0	57.9	90.5	57.3

One Minute Volatility Bps

FirstHalfHour	67.8	64.3	62.7	66.9	63.9	66.9	68.3	73.8	70.7	68.3	68.3	65.6
MidDay	57.6	58.4	58.0	59.0	59.3	60.2	55.9	58.7	56.8	59.9	60.4	57.1
LastHalfHour	59.3	59.3	60.4	60.4	60.4	60.1	58.0	60.4	59.7	61.9	90.5	59.3

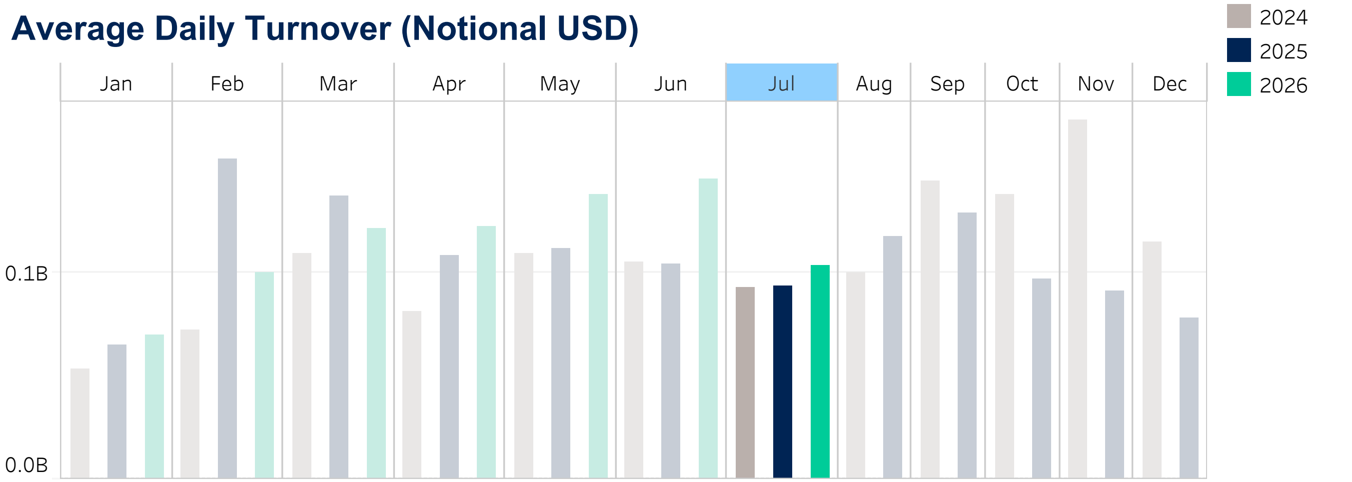
Quotesize (shares)

FirstHalfHo..	258,938	341,861	298,403	246,094	241,910	235,917	336,247	236,375	309,840	372,510	392,238	385,431
MidDay	802,684	908,552	897,217	803,470	802,295	790,843	######	719,240	######	######	######	######
LastHalfHo..	694,951	854,542	809,263	693,340	707,849	721,041	899,091	715,167	949,525	######	######	######

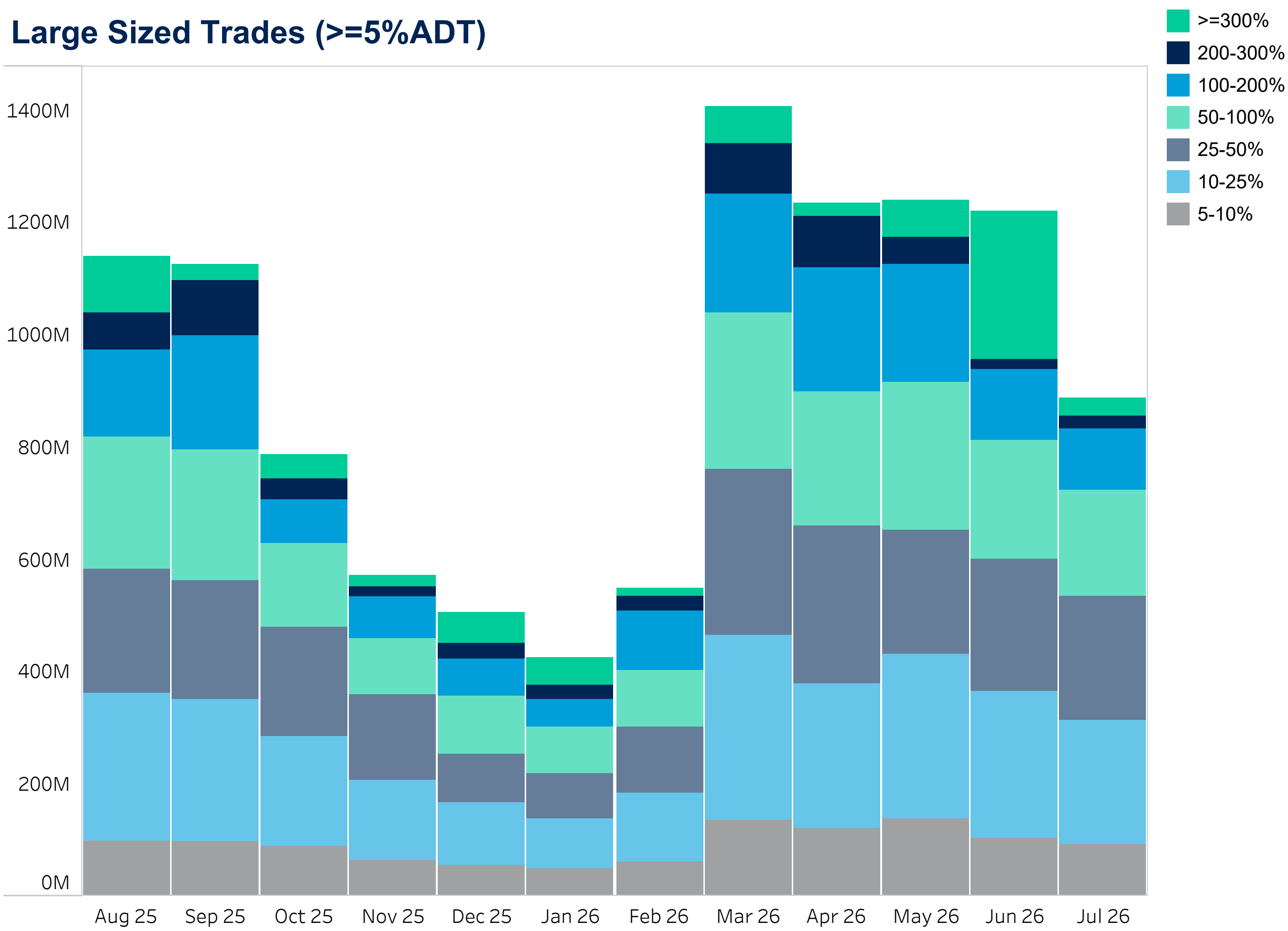
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

New Zealand

Average Daily Turnover (Notional USD)



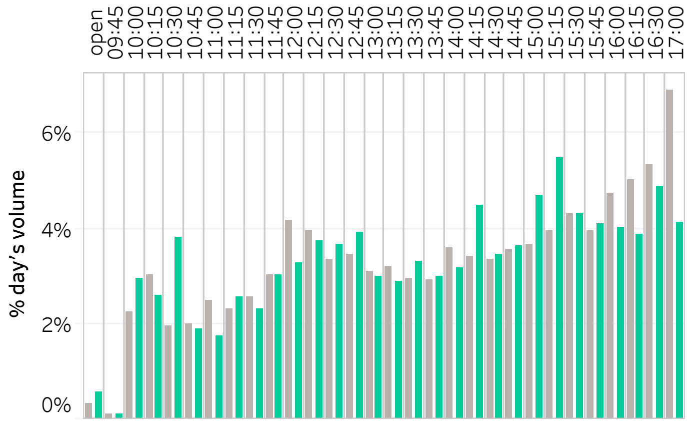
Large Sized Trades (>=5%ADT)



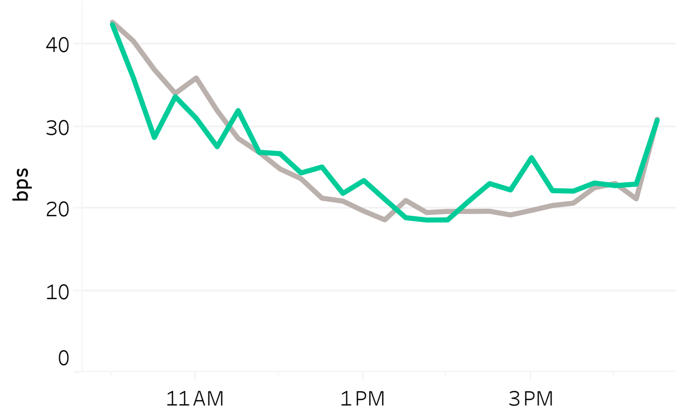
Source data: Virtu Financial

New Zealand

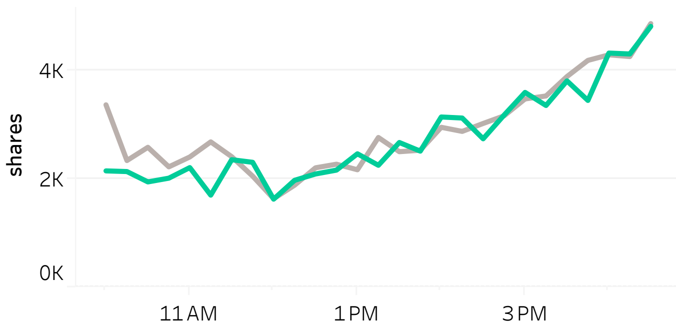
Volume Curve



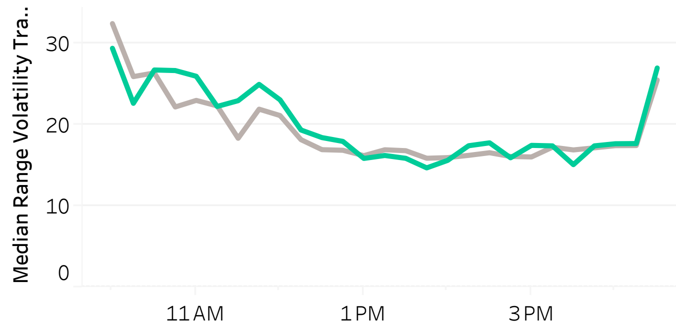
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	38.2	42.3	41.2	41.1	43.2	43.9	44.7	44.3	43.7	35.4	38.6	38.9
MidDay	19.1	21.8	21.8	21.2	25.7	21.3	23.5	26.4	22.5	19.0	22.3	23.1
LastHalfHour	25.9	35.2	32.0	31.0	34.4	29.3	30.8	33.2	32.2	28.1	31.8	31.0

One Minute Volatility Bps

FirstHalfHour	27.7	34.7	32.2	30.3	27.6	34.1	31.8	34.9	30.4	25.8	26.5	26.8
MidDay	15.1	17.7	16.8	17.0	18.3	17.6	18.0	19.2	17.8	16.1	16.1	17.5
LastHalfHour	21.9	25.8	25.8	25.0	25.3	25.2	26.1	29.7	25.9	25.4	26.9	26.7

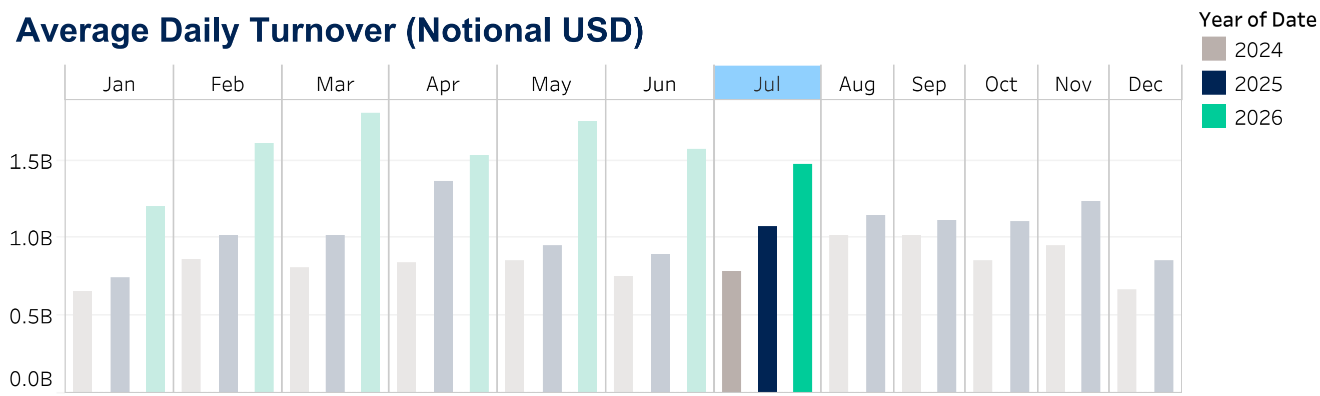
Quotesize (shares)

FirstHalfHour	2,808	2,273	3,292	2,959	2,704	3,160	2,196	2,490	2,481	2,164	2,216	2,052
MidDay	2,399	2,507	2,599	2,615	2,862	2,810	2,406	2,787	2,771	2,995	3,143	2,577
LastHalfHour	5,131	4,985	5,174	5,216	7,466	4,492	4,958	5,356	4,369	5,331	4,743	4,749

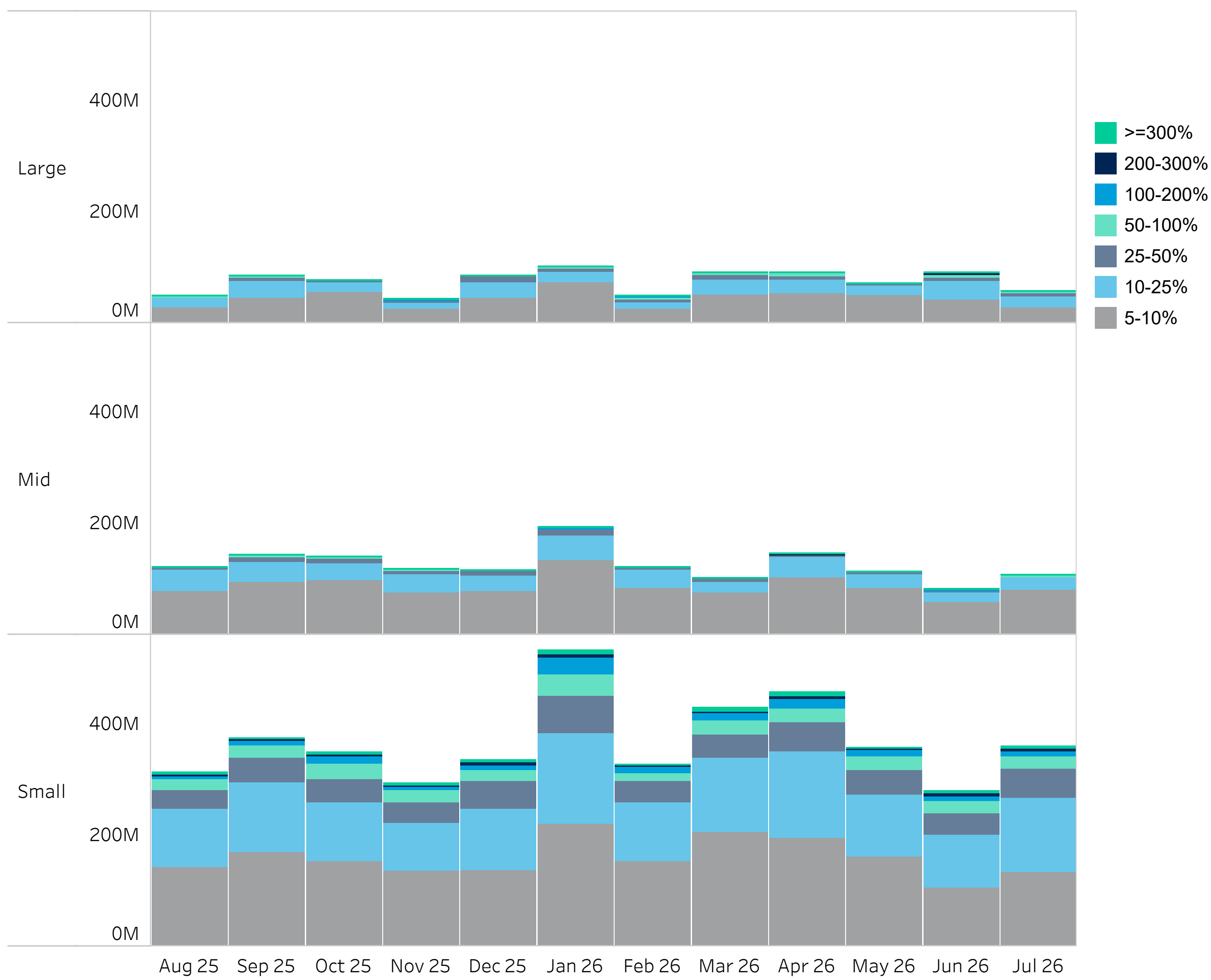
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Singapore

Average Daily Turnover (Notional USD)



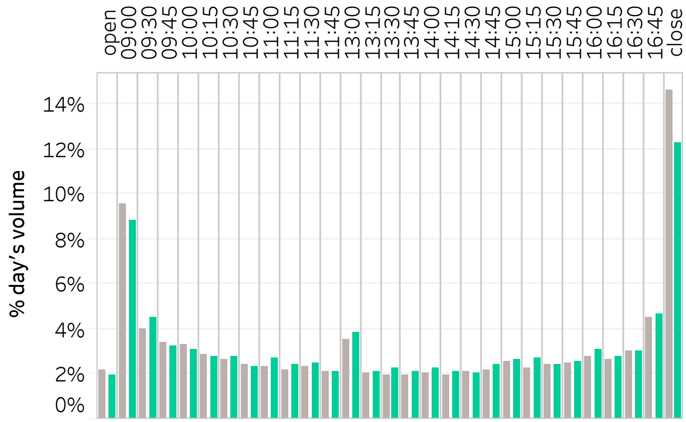
Large Sized Trades (>=5%ADT)



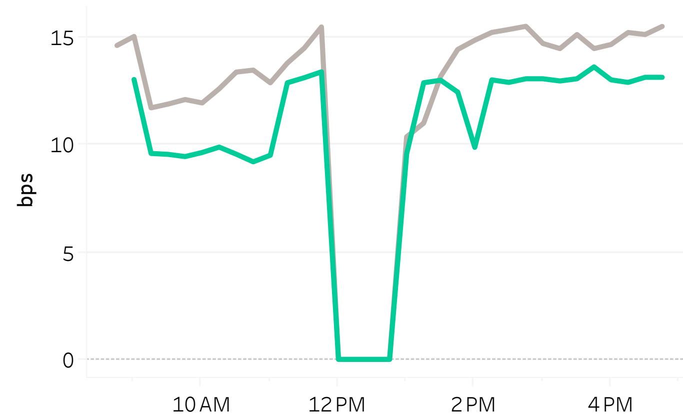
Source data: Virtu Financial

Singapore

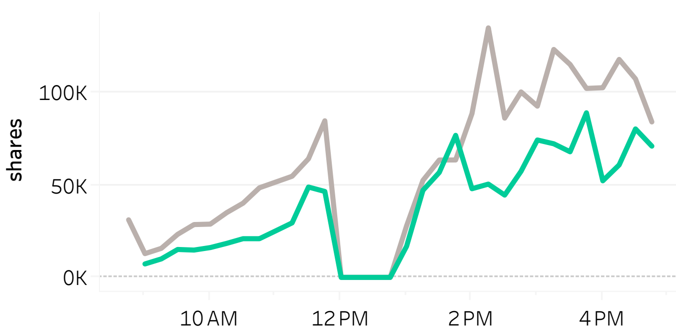
Volume Curve



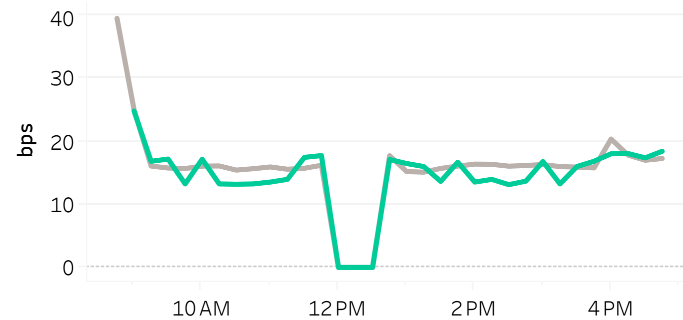
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	15.1	15.3	15.3	15.3	15.9	12.4	15.8	15.0	14.9	15.5	12.3	12.1
MidDay	16.4	16.5	23.2	12.3	15.9	11.4	14.4	9.8	14.0	9.8	9.5	13.0
LastHalfHour	16.3	16.5	23.1	15.4	16.8	15.6	14.9	15.1	14.8	14.8	13.3	13.2

One Minute Volatility Bps

FirstHalfHour	45.0	35.5	42.5	38.5	31.9	30.5	40.6	55.2	36.8	40.4	22.7	20.9
MidDay	23.8	23.0	23.7	15.5	16.7	15.7	16.2	15.4	15.1	15.7	14.2	16.0
LastHalfHour	23.8	23.0	23.7	16.3	21.3	16.7	16.6	17.4	15.8	16.0	15.9	17.9

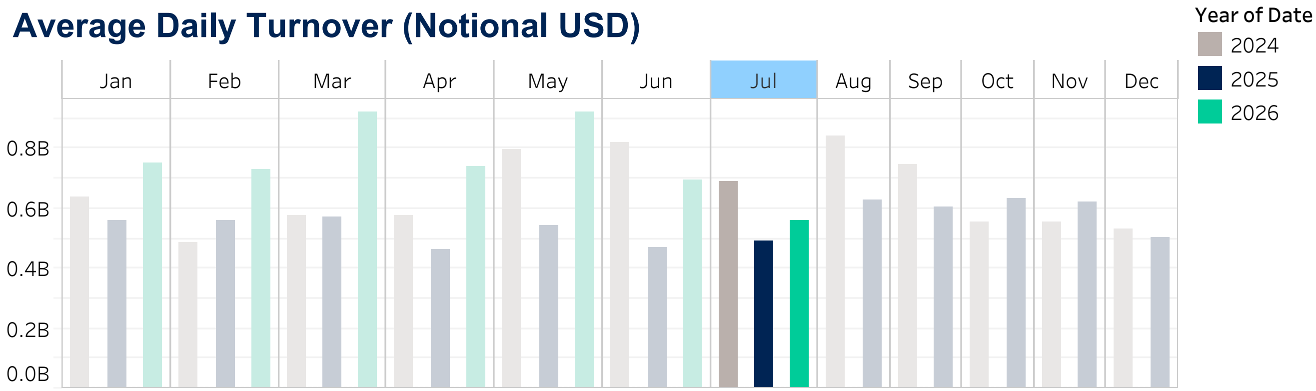
Quotesize (shares)

FirstHalfHour	48,734	28,947	38,303	25,875	33,483	28,496	56,912	81,475	48,217	35,657	7,348	8,407
MidDay	195,953	242,083	217,940	53,942	125,729	53,563	80,856	27,647	41,049	26,199	27,306	45,998
LastHalfHour	155,938	212,279	180,924	72,243	130,942	80,064	110,899	62,672	77,700	42,400	37,831	69,700

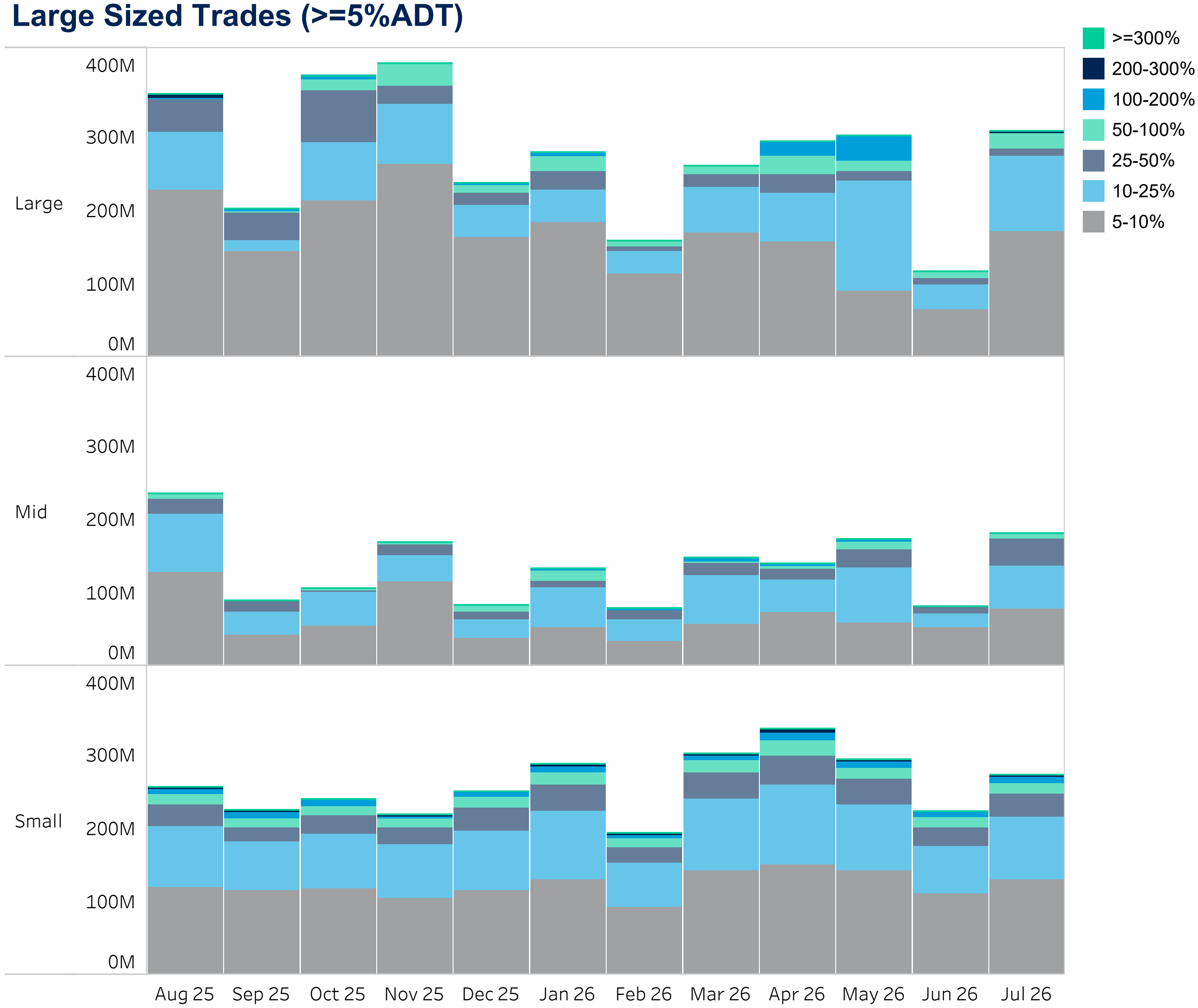
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Malaysia

Average Daily Turnover (Notional USD)



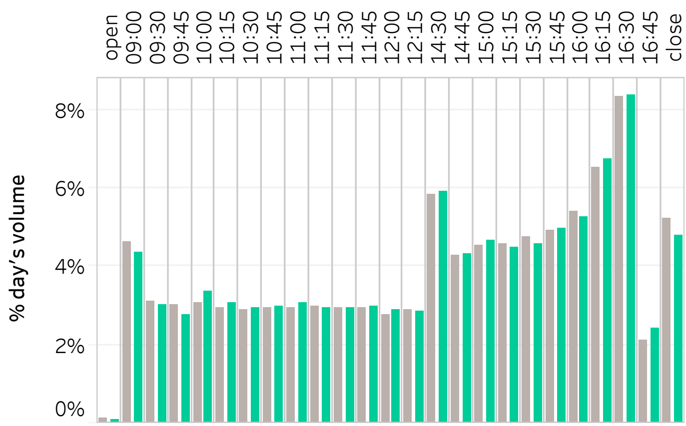
Large Sized Trades (>=5%ADT)



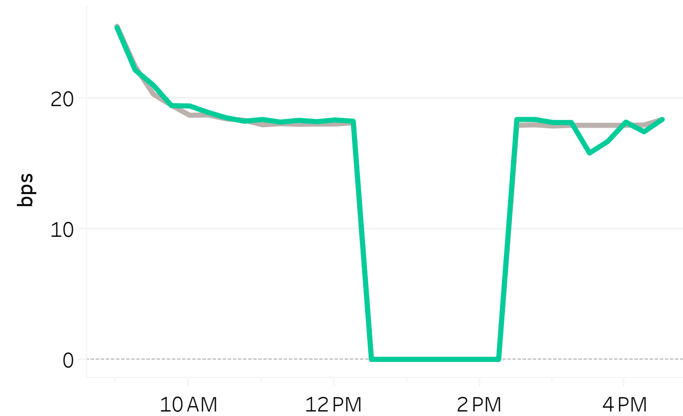
Source data: Virtu Financial

Malaysia

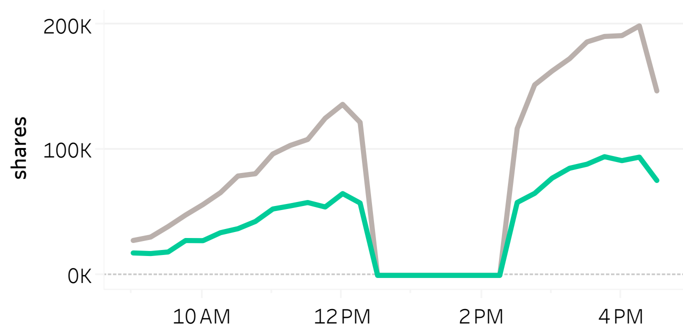
Volume Curve



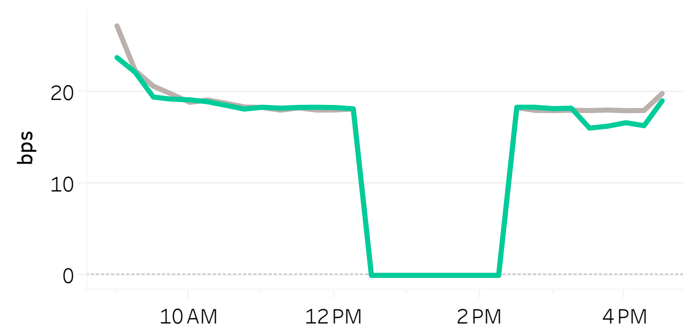
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	23.7	23.3	23.6	25.0	24.4	21.7	24.1	24.3	23.5	24.7	24.6	23.8
MidDay	18.5	18.0	17.6	18.4	19.1	17.9	16.9	17.5	17.8	18.2	18.8	18.3
LastHalfHour	19.8	18.3	18.4	18.6	19.7	17.9	17.3	17.8	17.9	18.1	19.7	18.4

One Minute Volatility Bps

FirstHalfHour	45.0	35.5	42.5	38.5	31.9	30.5	40.6	55.2	36.8	40.4	22.7	20.9
MidDay	23.8	23.0	23.7	15.5	16.7	15.7	16.2	15.4	15.1	15.7	14.2	16.0
LastHalfHour	23.8	23.0	23.7	16.3	21.3	16.7	16.6	17.4	15.8	16.0	15.9	17.9

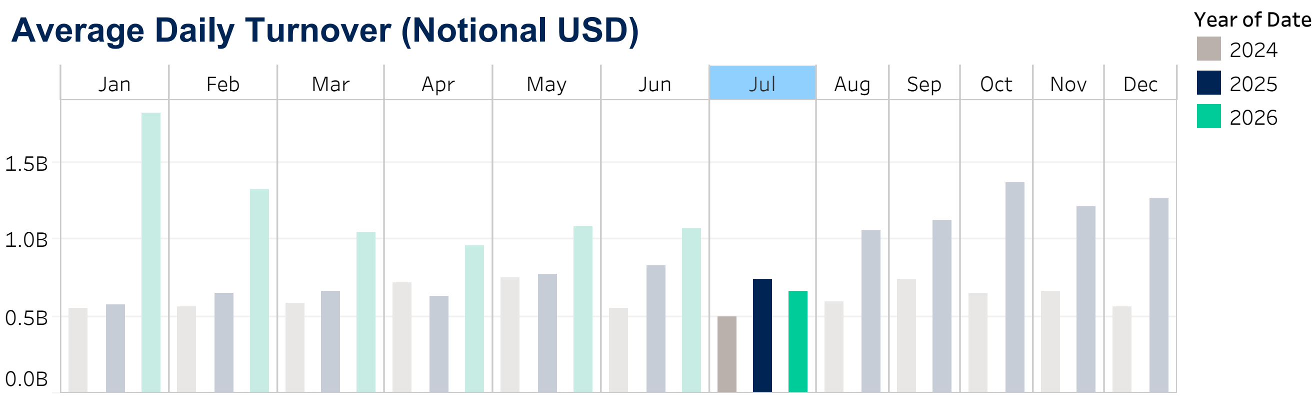
Quotesize (shares)

FirstHalfHour	28,329	35,631	27,334	30,608	32,010	31,454	35,053	26,098	23,544	27,506	25,622	17,056
MidDay	122,012	145,661	123,625	118,782	98,097	140,290	142,131	103,428	100,988	136,607	82,366	60,951
LastHalfHour	187,627	158,613	141,983	145,903	120,545	147,050	152,160	152,590	142,583	159,200	110,447	75,075

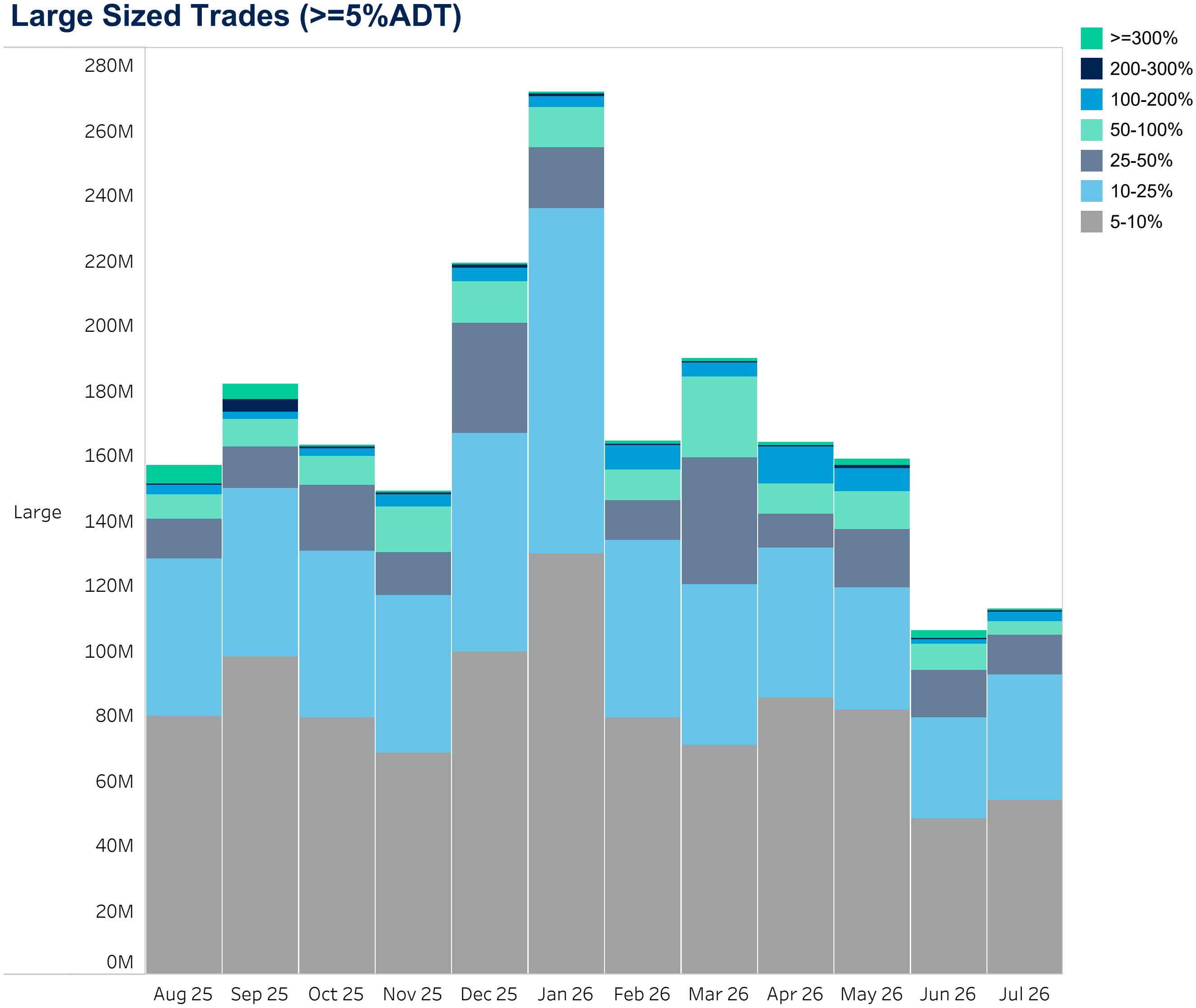
Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Indonesia

Average Daily Turnover (Notional USD)



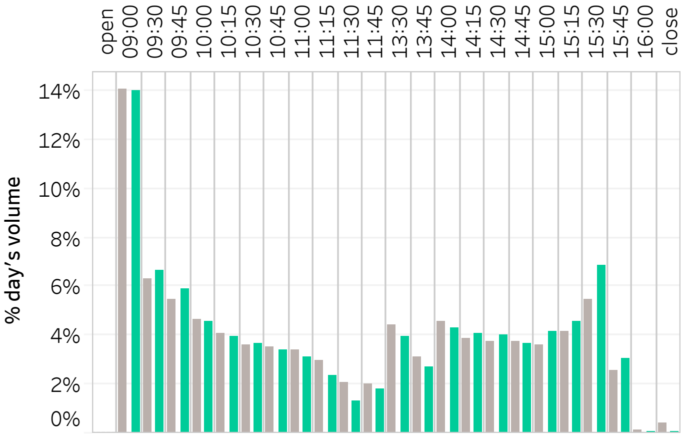
Large Sized Trades (>=5%ADT)



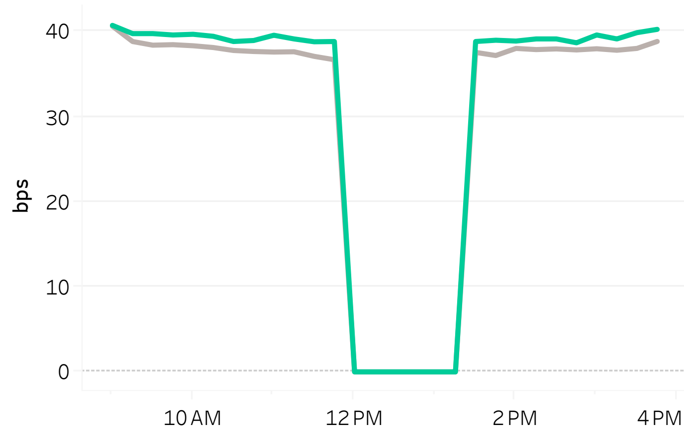
Source data: Virtu Financial

Indonesia

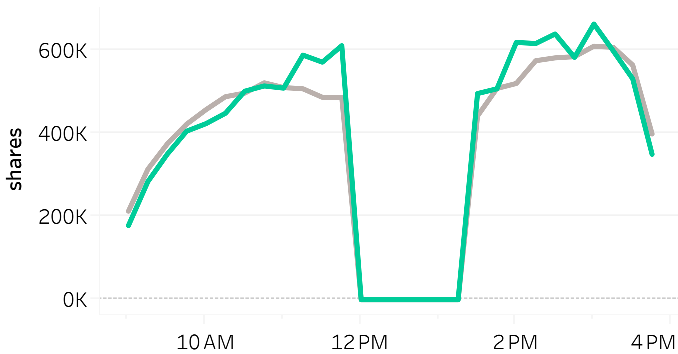
Volume Curve



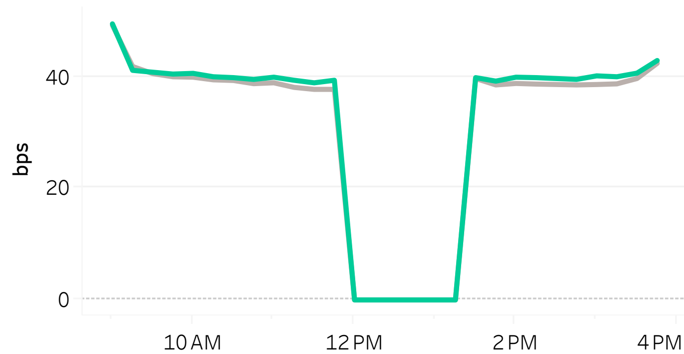
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg   July 2026

Spread Bps

	2025					2026						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
FirstHalfHour	39.4	39.4	40.3	38.5	38.7	39.7	39.9	41.5	39.7	41.8	42.8	40.2
MidDay	36.8	37.2	38.2	36.4	37.2	37.4	37.7	38.7	38.1	39.4	39.6	39.1
LastHalfHour	37.2	37.8	38.8	37.2	37.7	37.7	38.1	39.3	38.6	39.3	40.4	39.8

One Minute Volatility Bps

FirstHalfHour	42.3	44.0	46.0	41.6	43.1	48.2	49.6	53.9	47.3	54.9	63.1	44.0
MidDay	38.2	38.5	40.2	37.8	37.8	39.3	38.7	40.2	39.0	41.2	41.9	39.9
LastHalfHour	39.6	40.2	41.8	39.0	38.8	40.6	39.9	41.8	40.2	42.5	44.7	40.9

Quotesize (shares)

FirstHalfHour	263,295	300,820	261,521	304,144	256,192	246,019	216,414	154,391	191,214	153,618	148,050	238,427
MidDay	596,418	632,115	507,180	601,837	565,224	458,318	464,642	333,093	437,331	344,471	317,256	585,696
LastHalfHour	600,445	589,122	524,850	617,336	523,370	503,752	477,935	355,817	429,018	347,232	332,411	497,690

Median used for all metrics
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Source data: Virtu Financial

Glossary

Volume curve - average of value traded during the month, per 15-minute time bin.
Intraday volatility - Median of difference between the high and low price within a one minute time bin, divided by that bin's VWAP
Spread - median of bid-ask spread of the index.
Quotesize - Median bid and ask size of all stocks in the index.
Average daily turnover - average daily value traded in the market.

Indices used:

Hong Kong: Hang Seng Index
China: CSI 300
Japan: TOPIX
Australia: ASX 200
Korea: MSCI Korea 25/50 Index
Taiwan: TWSE
India: NIFTY 50
Thailand: MSCI Thailand IMI 25/50 Index
New Zealand: MSCI New Zealand IMI 25/50 Index
Singapore: MSCI Singapore Index
Malaysia: MSCI Malaysia Index
Indonesia: MSCI Indonesia Index

ABOUT VIRTU

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To learn more, contact your sales representative or call our desk at:
APAC+852.2846.3553 | **CAN**+1.416.874.0800 | **EMEA**+44.20.7670.4066 | **US**+1.212.444.6250
info@virtu.com | www.virtu.com