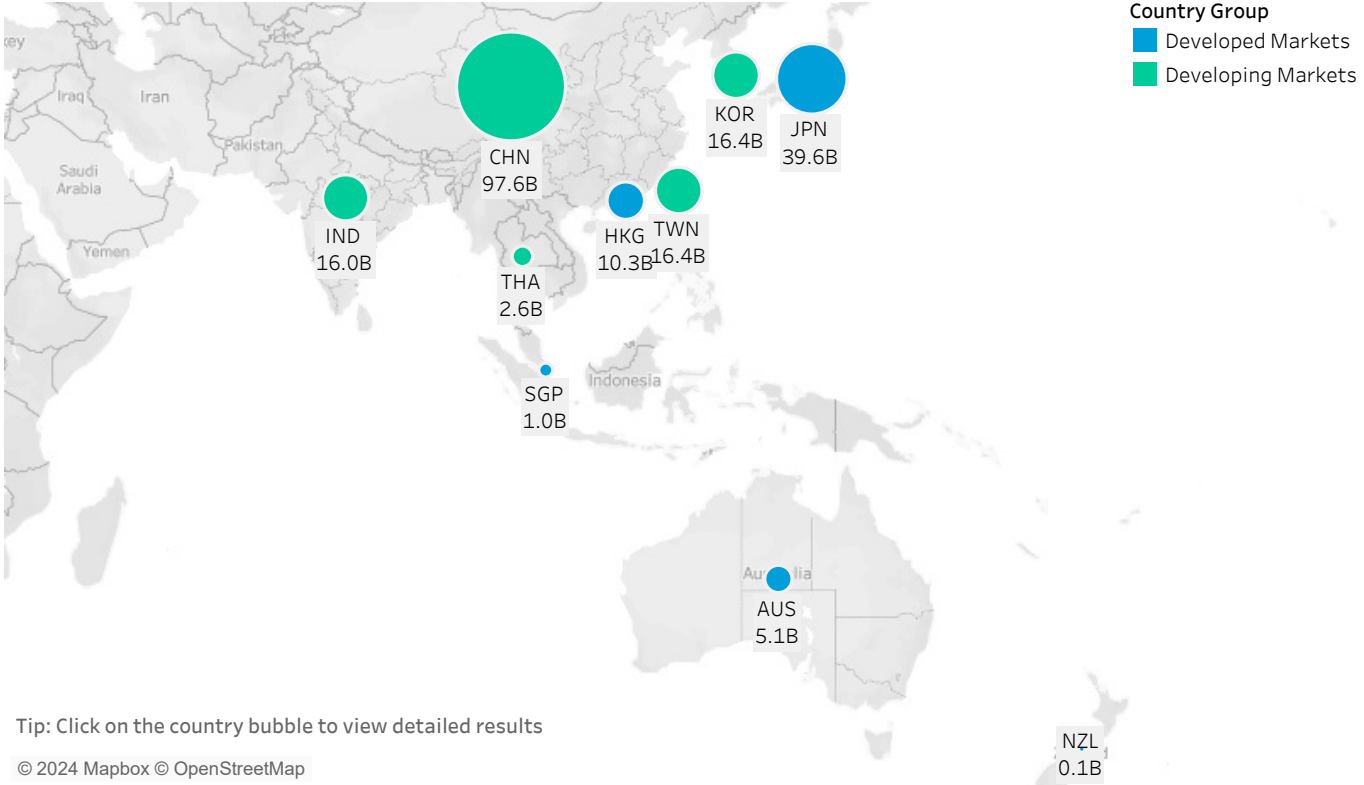


August 2024 APAC Market Structure Monthly

Average Daily Turnover (Notional USD)



Country Breakdowns

Hong Kong

China

Japan

Australia

South Korea

Taiwan

India

Thailand

New Zealand

Singapore

Aug 2024

AP Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- Following the heightened volatility in the Nikkei index, Japan average daily turnover (ADT) in August 2024 increased 29% month-over-month (MoM) to a year-to-date high (YTD) of US\$39.6B. Australia also saw 20% uptick MoM in ADT to US\$5.1B, while Hong Kong and China extended its consecutive ADT decline, down 5% and 9% in August compared to July.
- Intraday spreads and one-minute volatility in Japan rose 40% and 48% MoM in August 2024, while intraday quote-size fell 31% MoM during last half hour of day in August.
- Large sized trades ($\geq 5\%$ ADV) for Australian large cap names soared to a YTD high at US\$3B in August 2024. This was driven by a 2x turnover of the 50-100% ADV segment, accounting for US\$592M in August.

AP MARKET STRUCTURE NEWS

Hong Kong Exchange and Clearing Limited To Host Practice Session for Severe Weather Trading Implementation, Taking Effect from 23 September 2024

Hong Kong Exchange and Clearing Limited hosted a Practice Session on 24 August 2024 to allow Exchange Participations and China Connect Exchange Participants to verify their system and operational flow setup under Severe Weather Trading (SWT). SWT will be implemented on 23 September 2024.

https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2024/OPS_CS_010_24_e.pdf

<https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2024/CT10424E.pdf>

Second Phase of Stock Connect Market Data Dissemination Adjustments in Effect

HKEX reminded the market participants on the second phase of Stock Connect market data dissemination adjustments. According to the Hong Kong bourse, following the successful implementation of the adjustments for item 1 (real-time turnover) and item 2 (daily quota balance) in relation to Northbound trading on 13 May 2024, the adjustments for the remaining items (items 3 to 7) were implemented on 19 August 2024 (Monday). Details of the adjustment items are set out in another Exchange circular:

[CT/038/24.](https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2024/CT11024E.pdf)

<https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2024/CT11024E.pdf>

Australia Stock Exchange Published Feedback Summary Document from the Cash Equities T+1 Settlement Consultation



On 2 August 2024, Australia Stock Exchange (ASX) published a document summarizing feedback from a previously published whitepaper on accelerating cash equities settlement in Australia to T+1. ASX sought industry feedback on a potential move to T+1 settlement in Australia and received responses from a broad range of stakeholders.

<https://www.asx.com.au/about/regulation/consultations-and-submissions>

To learn more, contact your sales representative or call our desk at:

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+1.646.682.6199

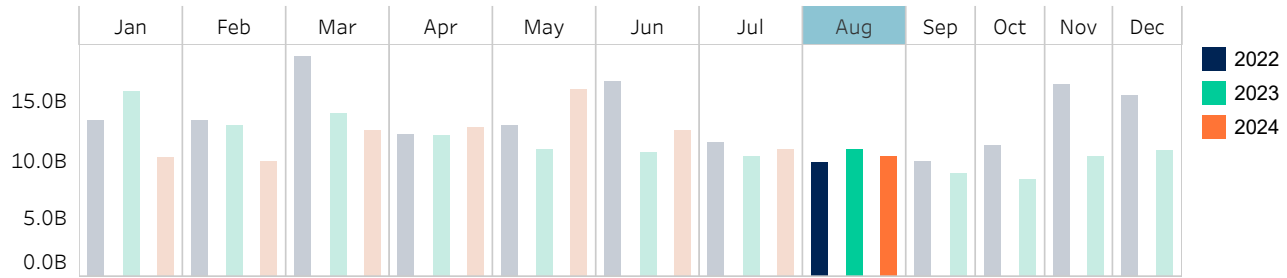
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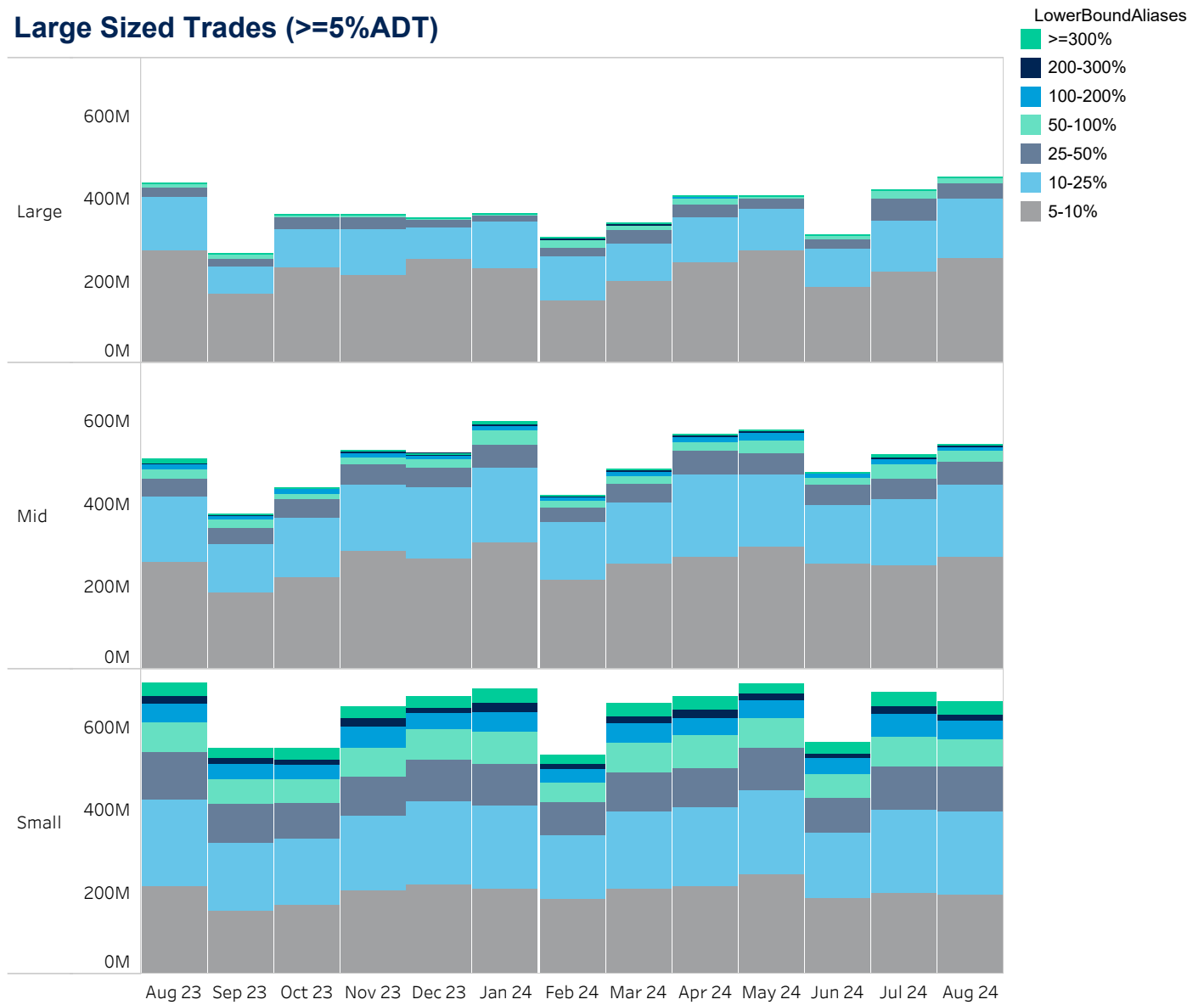
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Hong Kong

Average Daily Turnover (Notional USD)



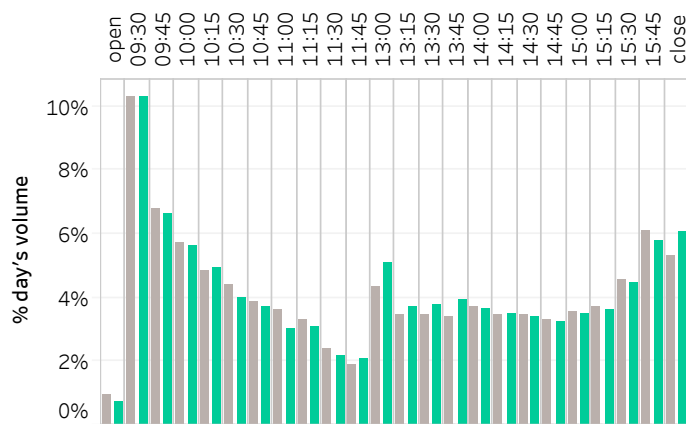
Large Sized Trades (>=5%ADT)



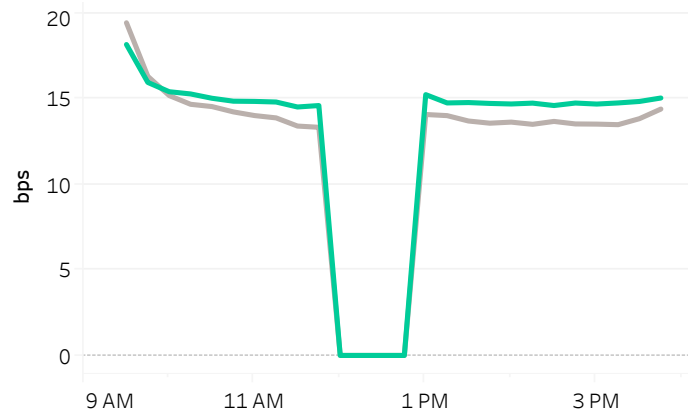
Source data: Virtu Financial

Hong Kong

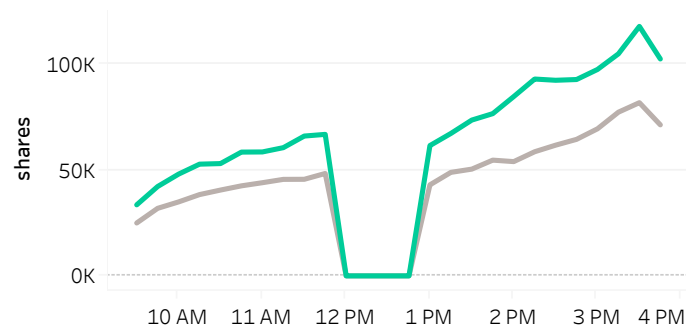
Volume Curve



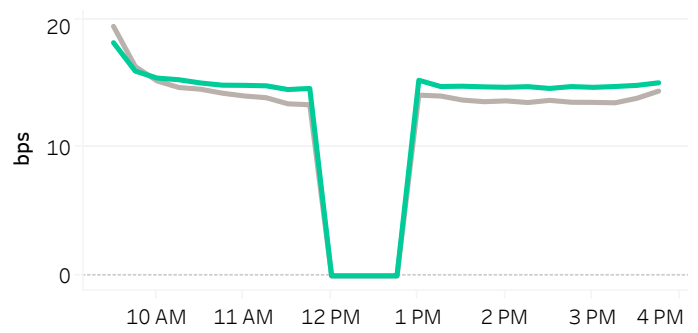
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	18.7	18.1	18.4	17.1	17.0	16.7	16.8	16.2	16.3	16.0	16.6	17.0	17.2
MidDay	14.0	14.4	14.7	13.4	14.2	14.4	13.6	13.5	13.7	13.5	14.0	14.4	14.8
LastHalfHo..	13.9	14.8	15.0	14.3	15.2	15.1	14.3	13.8	13.9	13.9	14.1	14.6	14.9

One Minute Volatility Bps

FirstHalfHo..	25.8	23.8	24.3	24.3	24.1	25.7	26.8	26.1	26.5	26.0	24.9	24.7	24.6
MidDay	15.8	15.6	16.0	15.2	15.9	16.5	16.1	15.8	15.2	15.3	15.4	15.4	15.8
LastHalfHo..	16.1	16.5	16.6	16.9	17.6	17.3	16.4	15.9	15.3	15.9	15.8	15.6	16.0

Quotesize (shares)

FirstHalfHo..	27,693	28,391	27,601	23,593	24,188	25,581	23,164	28,948	34,226	31,313	32,177	36,901	37,449
MidDay	45,912	52,298	46,953	46,472	52,781	52,997	41,722	57,521	64,130	61,681	64,411	67,617	67,236
LastHalfHo..	74,613	78,499	77,442	72,387	70,619	79,360	72,944	95,535	97,872	98,721	97,430	108,596	105,782

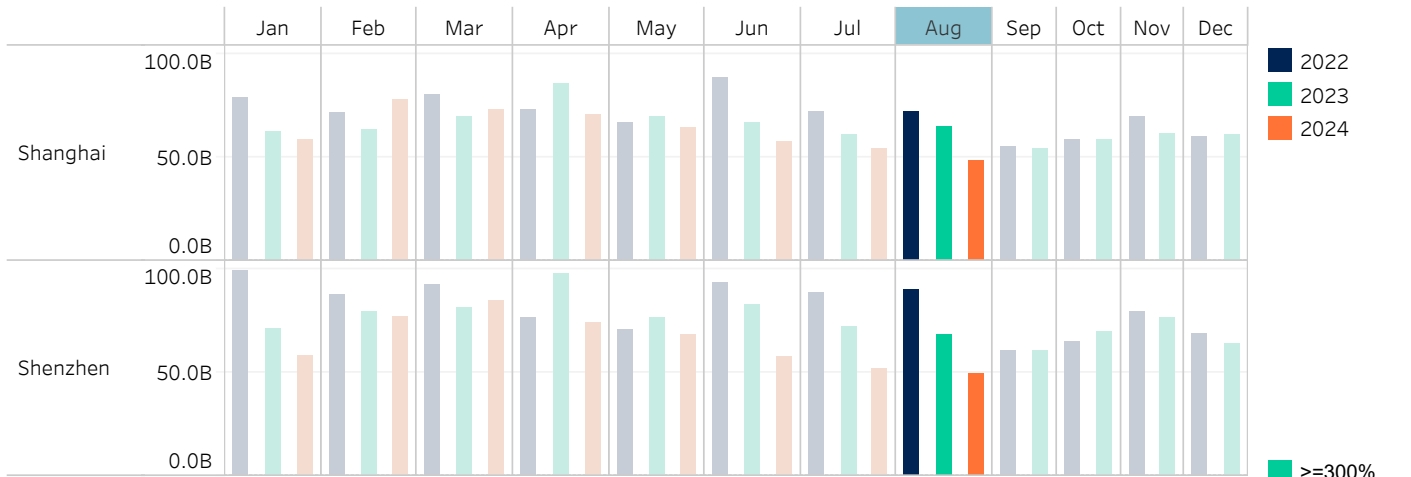
Median used for all metrics

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

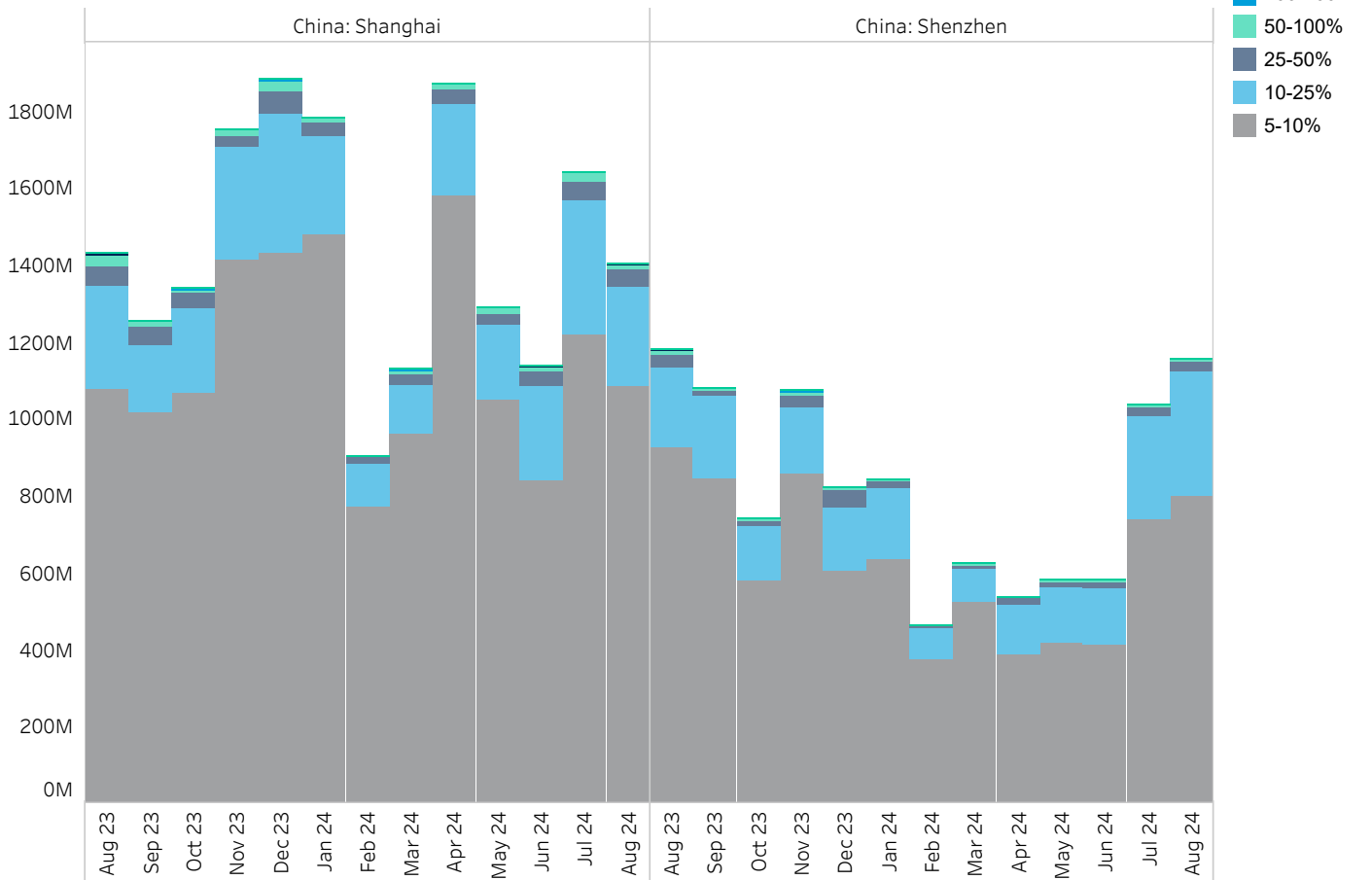
Source data: Virtu Financial

China

Average Daily Turnover (Notional USD)



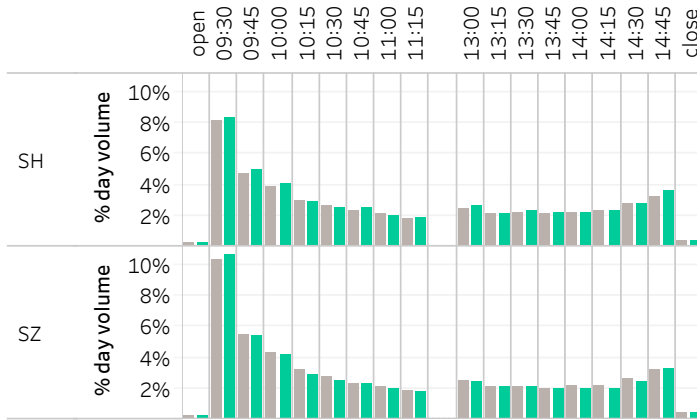
Large Sized Trades (>=5%ADT)



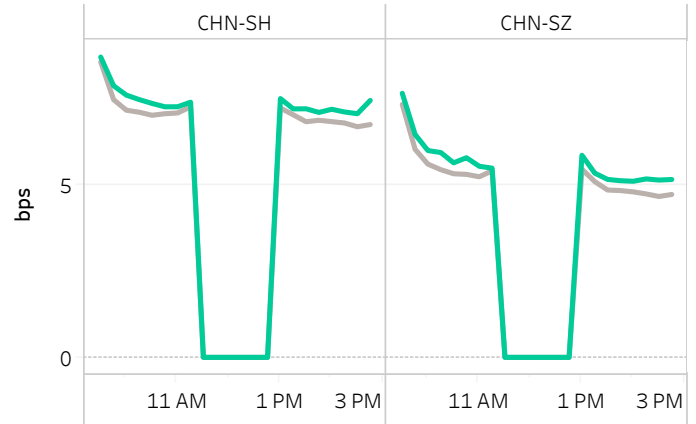
Source data: Virtu Financial

China

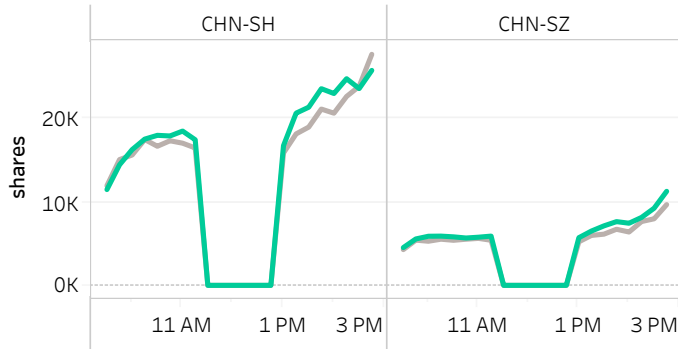
Volume Curve



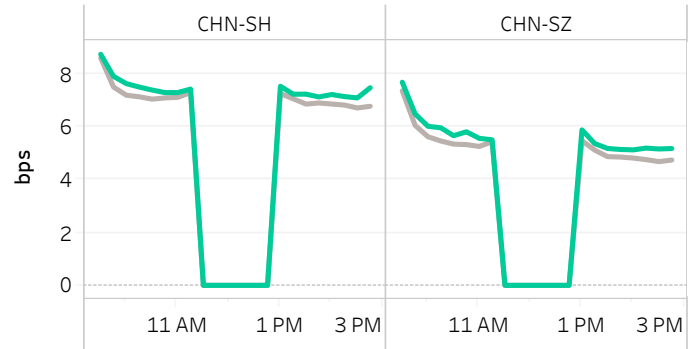
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	CHN-SH								CHN-SZ							
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	8.7	8.9	8.0	8.2	7.7	7.9	8.1	8.3	7.1	7.4	6.5	6.8	6.6	6.8	7.0	7.1
MidDay	8.0	7.8	7.1	7.0	6.7	7.0	7.3	7.4	5.9	6.0	5.4	5.5	5.2	5.4	5.6	5.7
LastHalfHo..	8.2	7.8	7.0	6.7	6.4	6.8	7.3	7.4	5.8	5.6	5.1	5.0	4.8	5.1	5.3	5.4

One Minute Volatility Bps

FirstHalfHo..	27.6	32.4	25.6	29.1	25.2	25.8	27.3	26.5	30.2	34.1	28.0	30.2	26.0	27.0	28.5	26.5
MidDay	17.3	18.8	15.3	14.6	13.3	14.0	15.0	14.0	15.7	18.9	14.6	14.0	11.9	12.5	13.6	12.1
LastHalfHo..	18.1	17.8	14.5	13.9	12.7	14.1	14.7	14.1	15.7	15.8	12.6	11.7	10.5	12.0	12.3	11.8

Quotesize (shares)

FirstHalfHo..	13,651	14,145	16,705	14,795	16,130	13,737	13,345	12,992	4,495	4,979	6,105	5,677	5,977	5,165	5,144	5,053
MidDay	16,308	16,111	19,611	19,057	21,688	18,327	16,893	18,266	5,280	5,654	6,860	6,807	7,527	6,395	6,100	6,107
LastHalfHo..	20,444	24,112	29,770	29,522	33,861	26,132	25,695	26,034	7,099	8,454	10,445	11,277	12,303	9,755	9,569	9,969

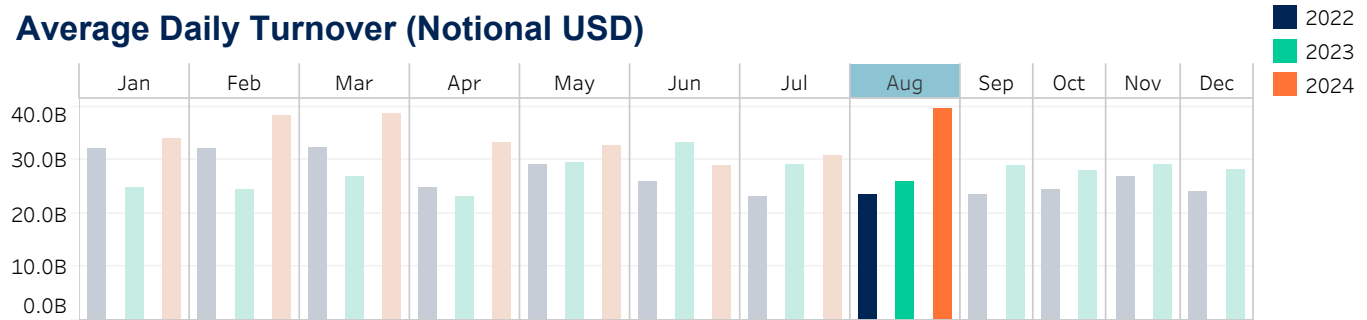
Median used for all metrics

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

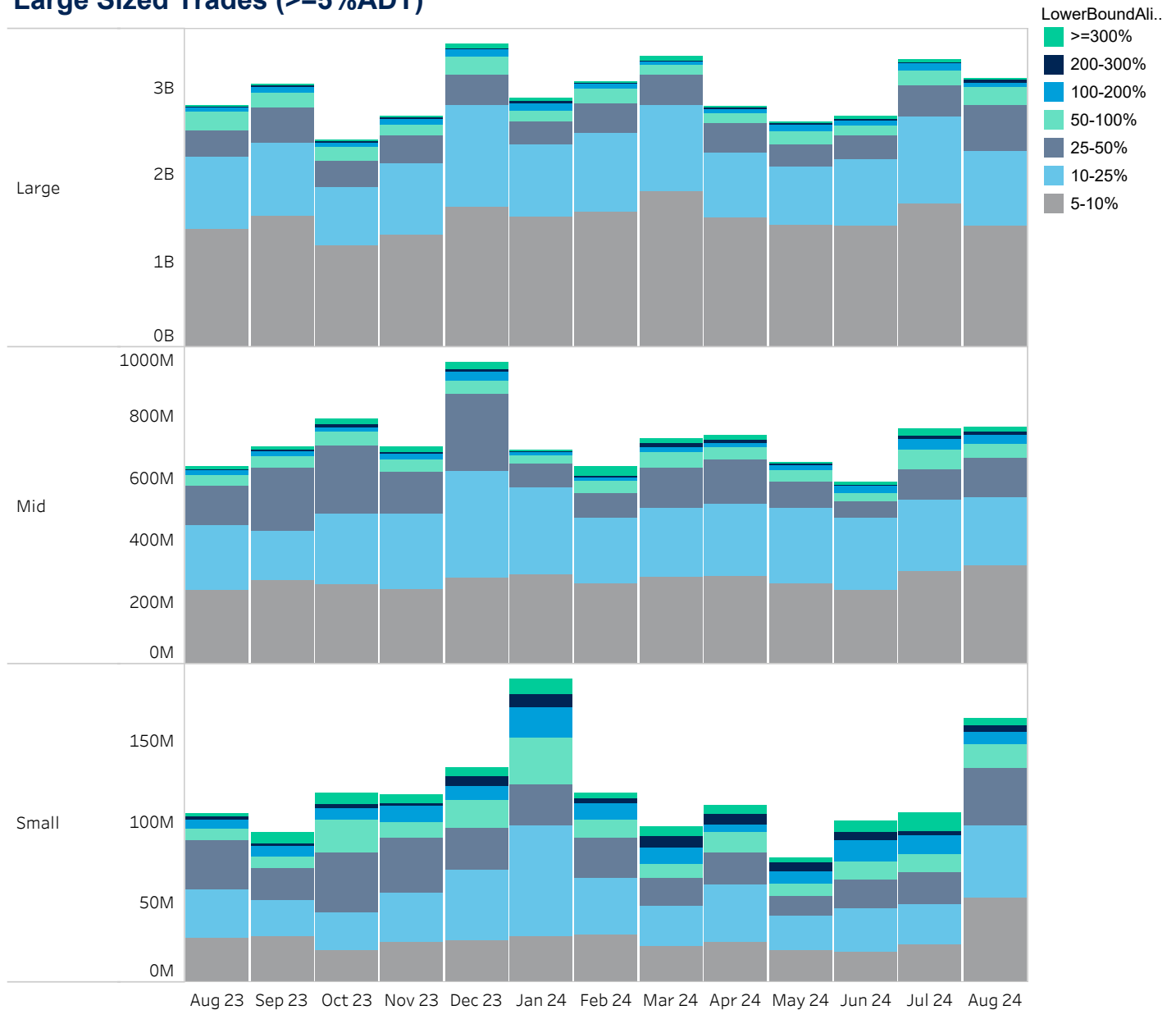
Source data: Virtu Financial

Japan

Average Daily Turnover (Notional USD)



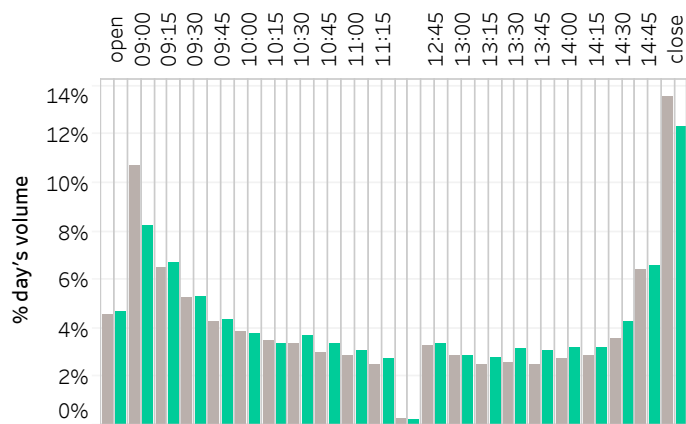
Large Sized Trades (>=5%ADT)



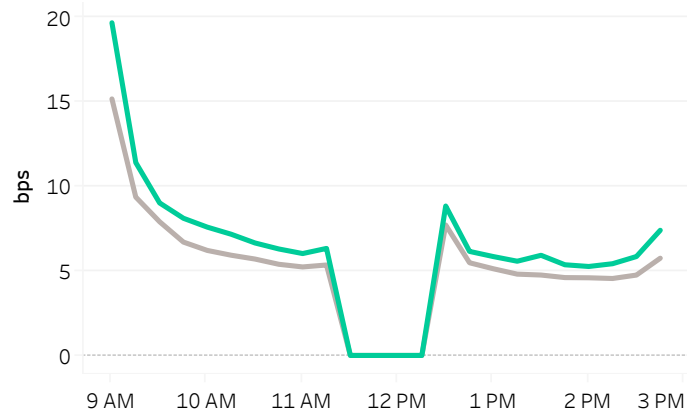
Source data: Virtu Financial

Japan

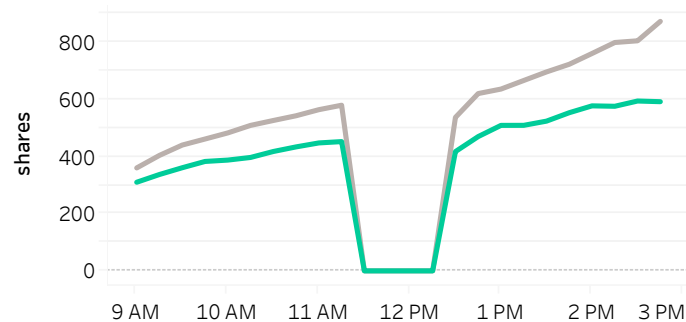
Volume Curve



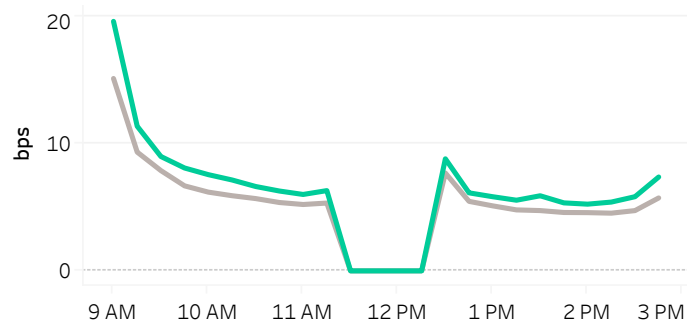
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	12.2	11.4	13.0	13.5	11.7	11.6	13.1	12.8	12.3	13.0	12.3	12.3	17.4
MidDay	5.4	5.2	5.8	6.0	5.3	5.3	6.0	5.6	5.7	5.5	5.1	5.3	7.9
LastHalfHo..	4.9	5.1	5.7	5.5	5.1	4.9	5.6	5.5	5.2	5.3	5.1	5.3	8.1

One Minute Volatility Bps

FirstHalfHo..	14.8	14.1	16.0	16.8	14.7	14.9	17.1	16.7	16.6	17.4	15.8	15.8	23.4
MidDay	6.1	6.0	7.1	7.3	6.2	6.4	7.3	7.1	7.5	7.0	6.4	6.9	10.6
LastHalfHo..	6.4	6.8	7.9	7.5	7.0	6.8	7.6	7.7	7.7	7.6	7.0	7.5	11.6

Quotesize (shares)

FirstHalfHo..	379.5	387.9	340.1	340.5	356.6	359.3	369.3	368.9	358.4	369.9	378.6	365.6	311.6
MidDay	575.3	579.5	493.7	525.7	550.6	555.1	548.6	534.4	499.1	549.5	568.5	539.3	406.3
LastHalfHo..	881.8	829.3	694.2	778.7	749.6	764.0	784.2	738.9	720.1	833.5	863.7	769.8	536.8

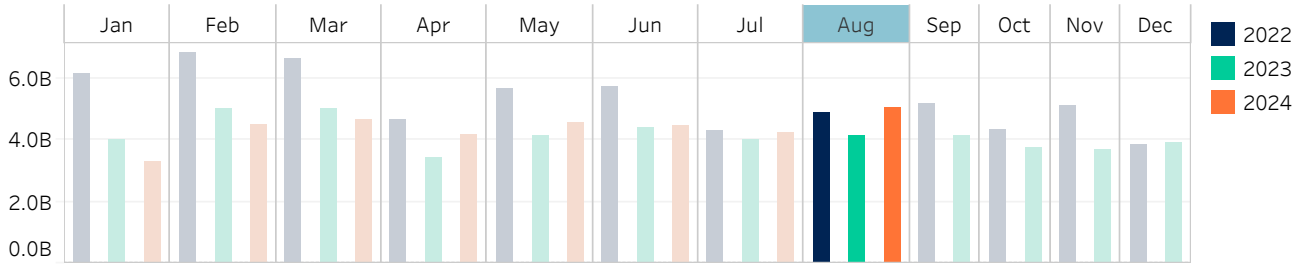
Median used for all metrics

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

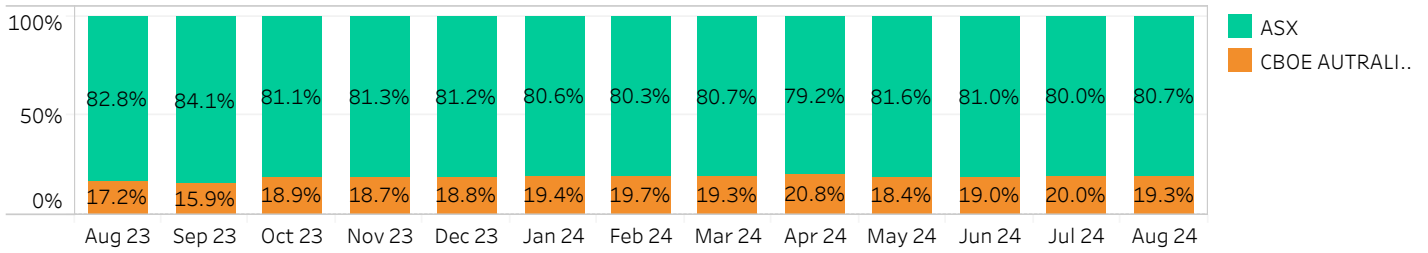
Source data: Virtu Financial

Australia

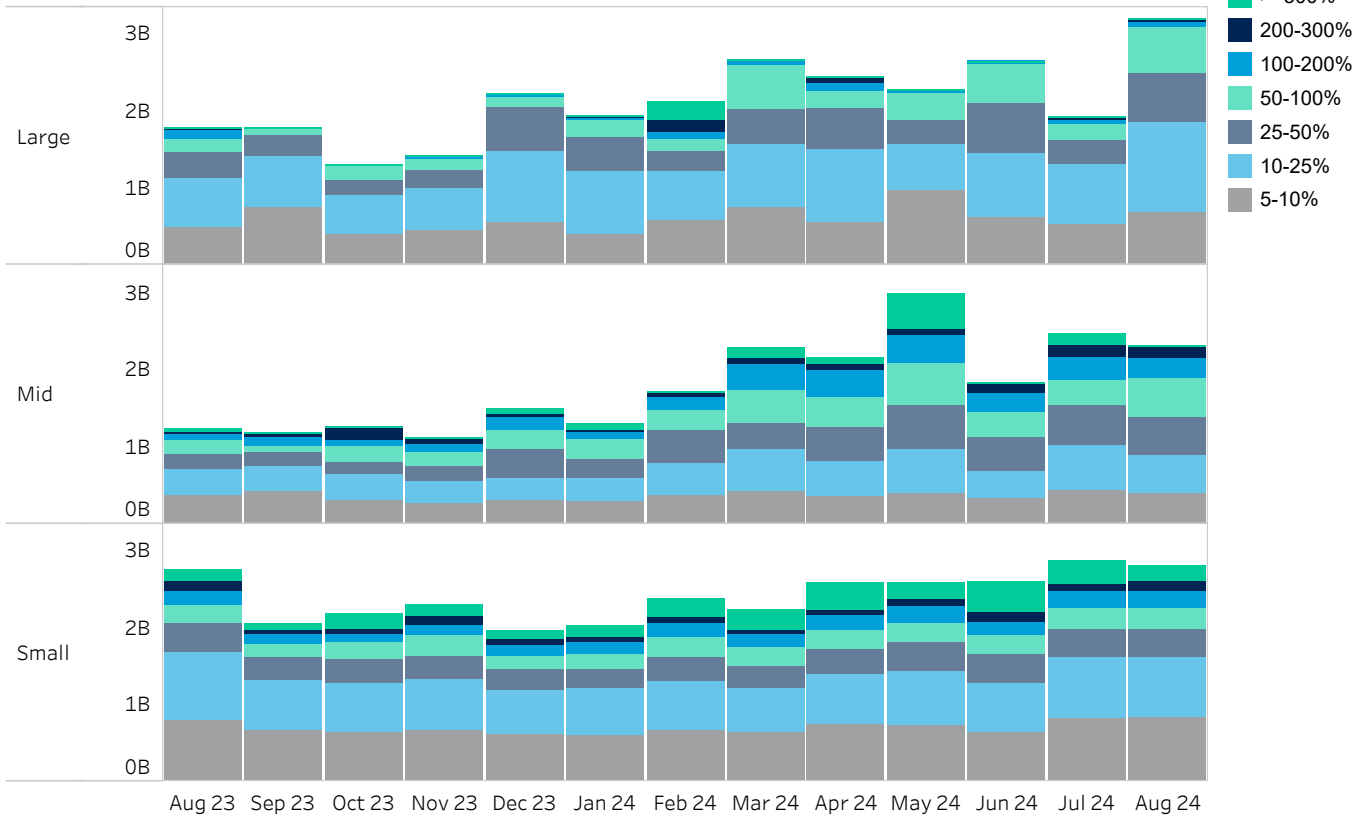
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)



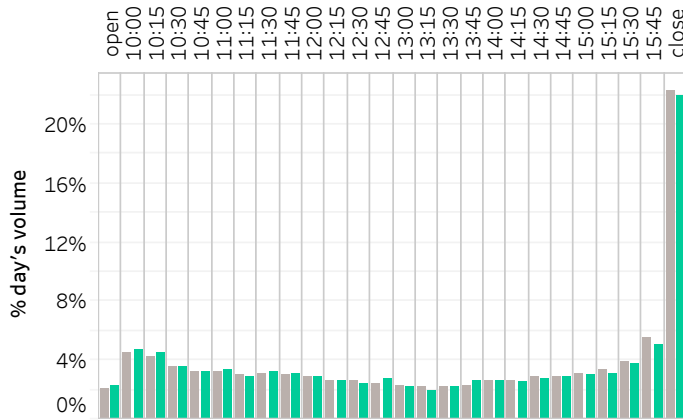
Large Sized Trades (>=5%ADT)



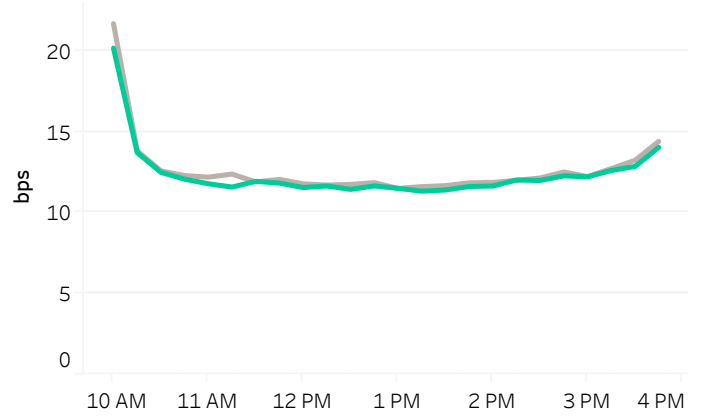
Source data: Virtu Financial

Australia

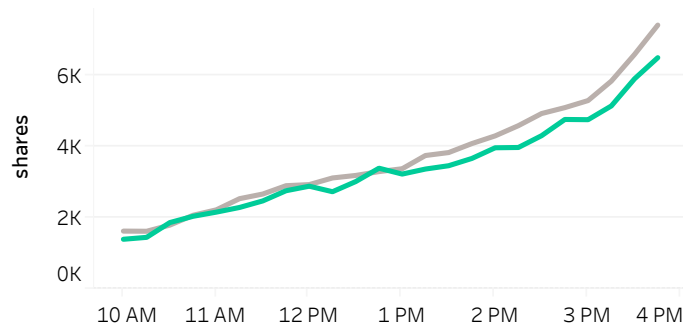
Volume Curve



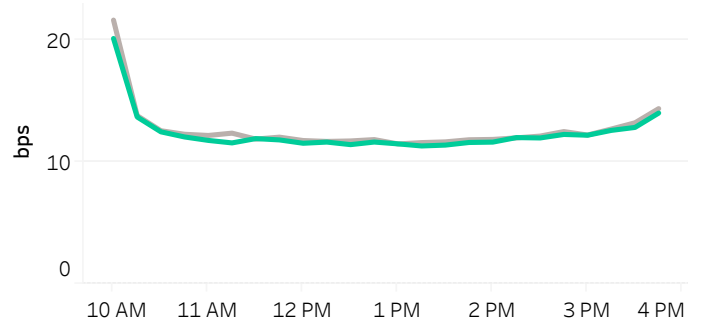
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	16.6	17.0	18.7	18.1	17.6	16.7	17.7	16.7	16.3	15.6	16.5	15.9	16.6
MidDay	11.1	12.3	13.1	13.1	12.6	12.0	12.5	11.9	11.7	11.9	12.3	11.8	11.7
LastHalfHo..	14.1	14.7	15.4	15.1	14.1	13.7	13.7	13.5	13.1	13.1	13.8	13.8	13.5

One Minute Volatility Bps

FirstHalfHo..	18.9	17.9	19.4	18.7	18.3	16.7	19.2	18.2	18.4	18.0	18.4	17.1	19.7
MidDay	9.7	9.6	10.6	10.8	10.1	9.5	10.5	10.0	9.6	10.1	10.5	10.0	10.6
LastHalfHo..	12.4	12.7	13.5	13.3	12.5	11.7	12.6	12.2	11.7	12.0	12.5	11.8	12.7

Quotesize (shares)

FirstHalfHo..	1,703	1,756	1,601	1,443	1,515	1,528	1,587	1,547	1,545	1,433	1,580	1,482	1,437
MidDay	3,310	3,720	3,289	3,147	3,258	3,388	3,303	3,261	2,984	3,555	3,928	3,774	3,262
LastHalfHo..	7,405	7,388	7,156	6,633	6,873	6,851	6,654	6,518	6,090	6,636	7,213	7,096	6,305

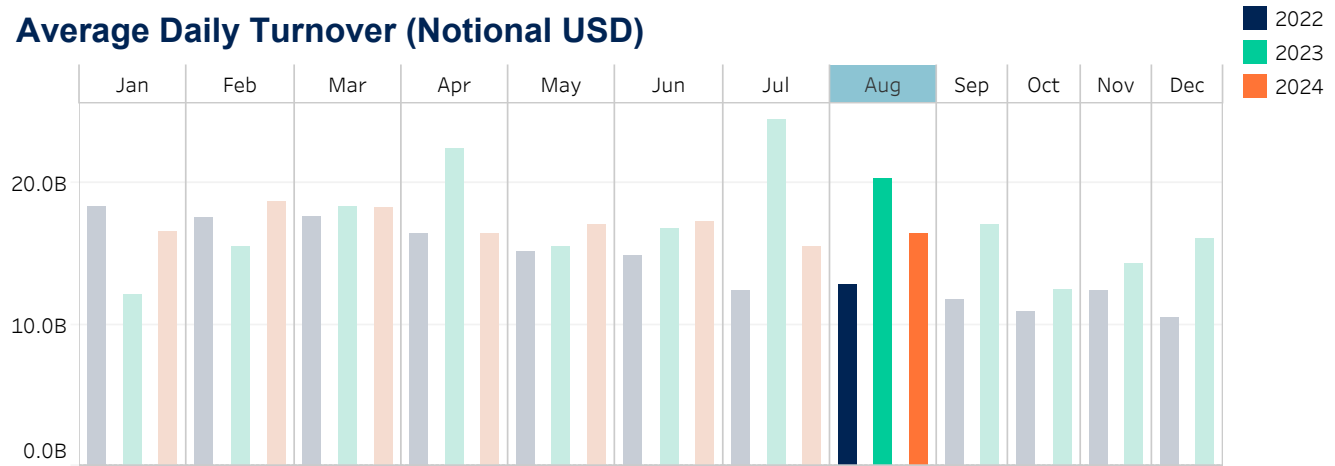
Median used for all metrics

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

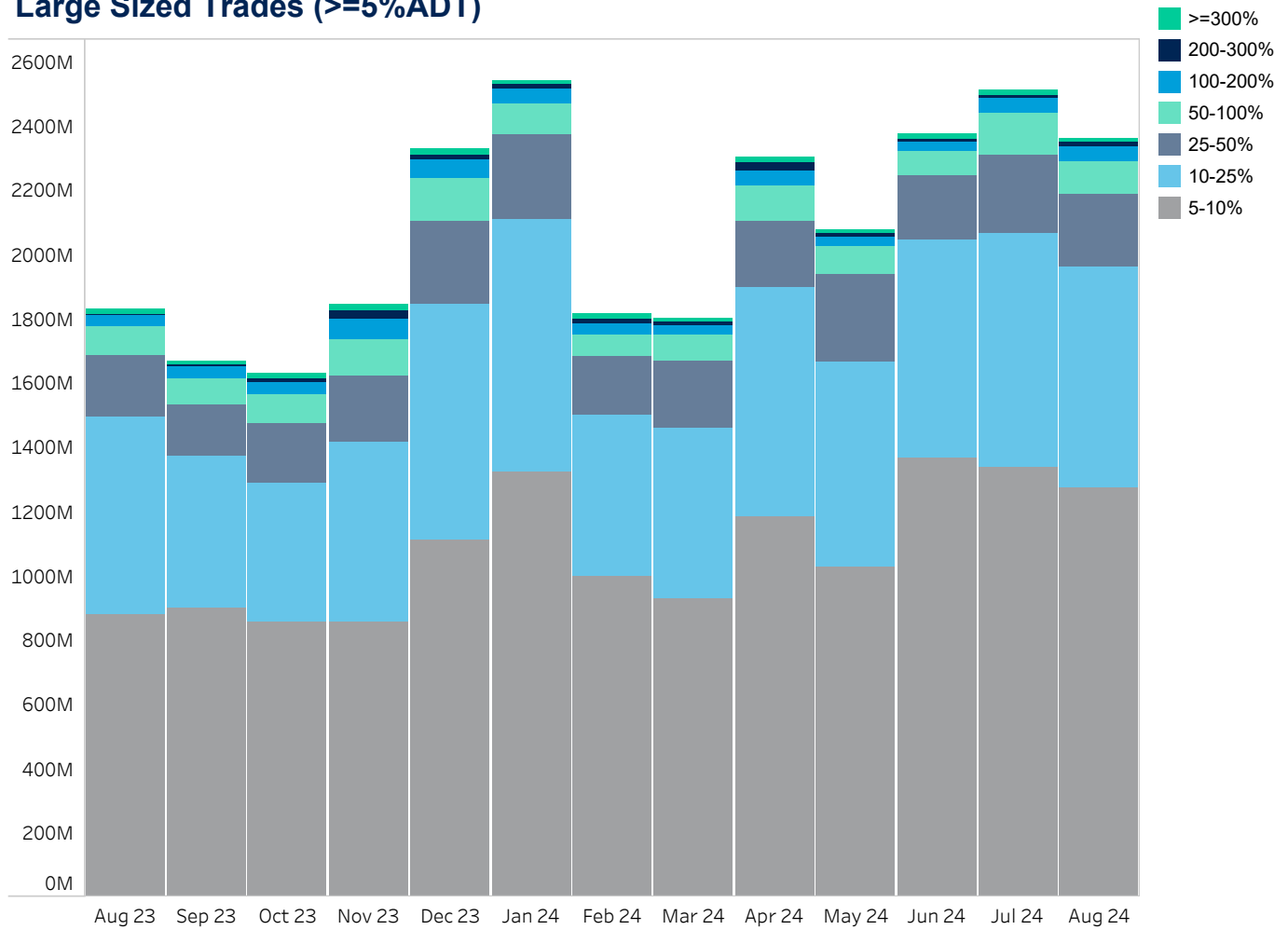
Source data: Virtu Financial

South Korea

Average Daily Turnover (Notional USD)



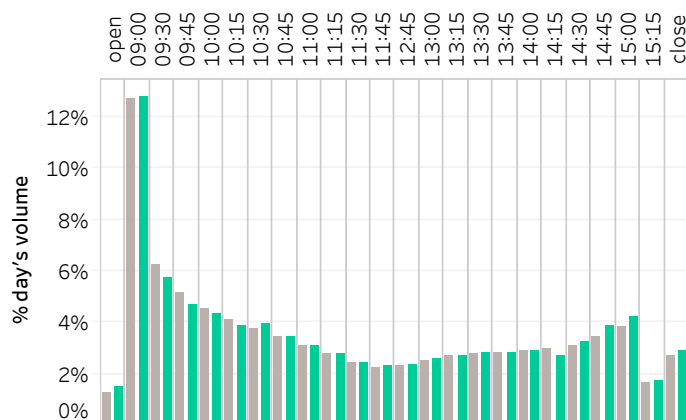
Large Sized Trades (>=5%ADT)



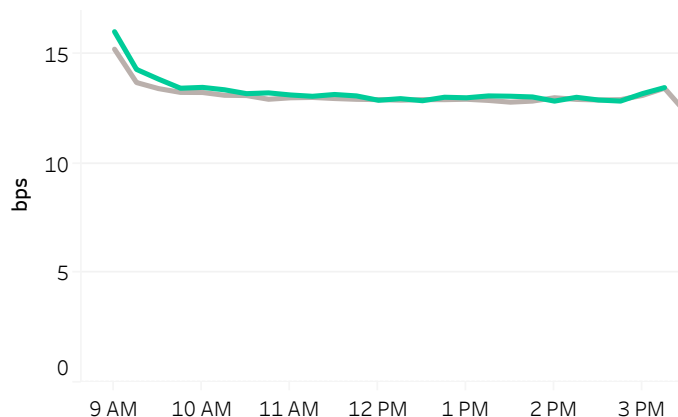
Source data: Virtu Financial

Korea

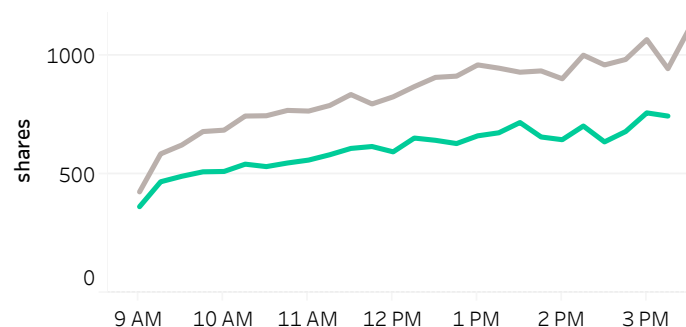
Volume Curve



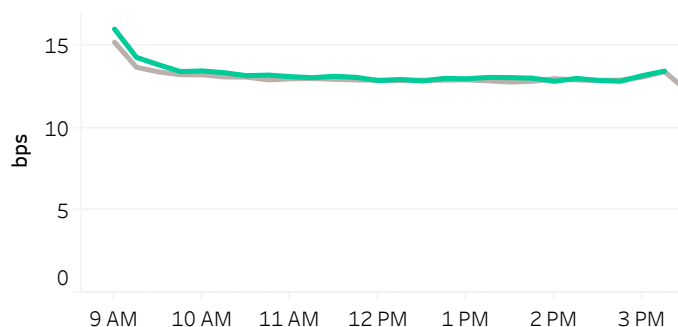
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	14.2	13.9	14.5	14.5	14.3	15.1	15.6	14.3	14.5	14.0	14.6	14.5	15.4
MidDay	12.8	12.5	12.8	13.1	12.8	13.6	13.6	12.4	12.7	12.7	13.1	12.6	13.1
LastHalfHo..	12.8	12.6	13.2	13.4	13.3	13.8	13.9	12.6	12.8	12.8	13.2	12.7	13.4

One Minute Volatility Bps

FirstHalfHo..	26.7	23.3	27.5	25.1	22.2	25.7	31.4	27.9	27.8	25.5	28.2	29.7	32.4
MidDay	14.3	14.0	14.6	15.1	14.5	15.7	16.4	15.7	15.6	14.9	15.8	16.0	16.5
LastHalfHo..	15.2	15.3	16.1	14.9	16.3	17.1	17.6	16.5	17.1	16.0	17.1	16.7	17.9

Quotesize (shares)

FirstHalfHo..	491.2	491.0	443.8	457.6	535.9	445.6	465.2	451.8	457.9	501.0	506.3	437.7	415.4
MidDay	875.5	922.8	808.1	760.3	895.4	806.7	749.1	773.4	713.4	826.0	731.0	690.2	606.3
LastHalfHo..	1,108.1	1,065.7	911.6	920.9	1,010.4	871.0	901.7	952.1	900.4	1,036.0	983.1	850.4	730.8

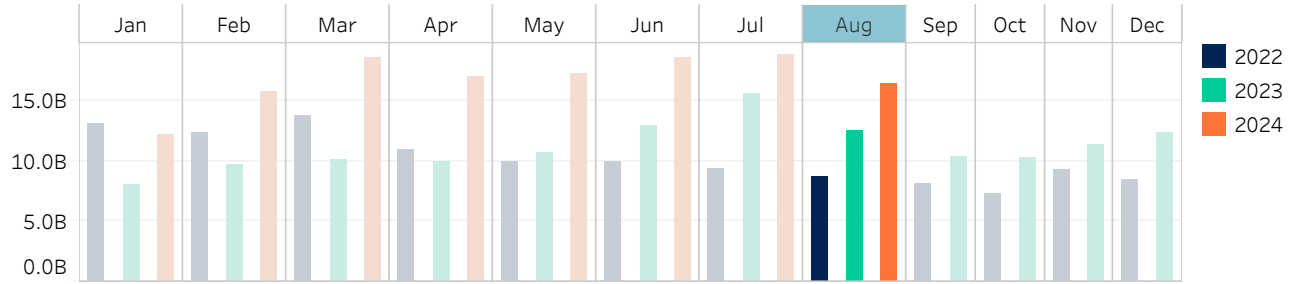
Median used for all metrics

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

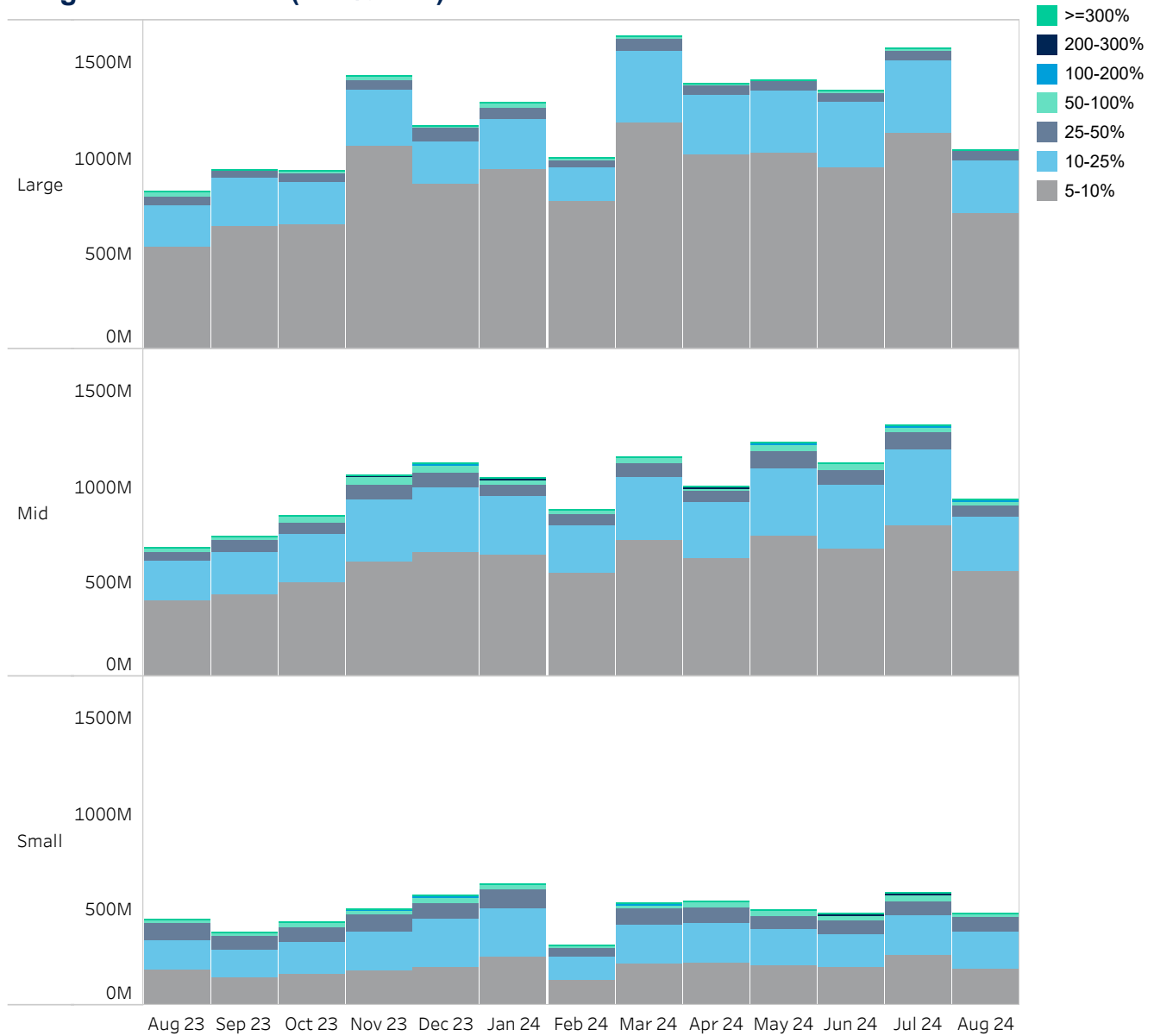
Source data: Virtu Financial

Taiwan

Average Daily Turnover (Notional USD)



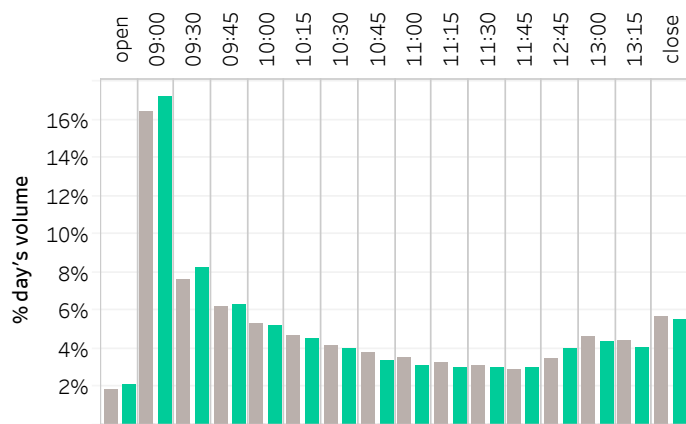
Large Sized Trades (>=5%ADT)



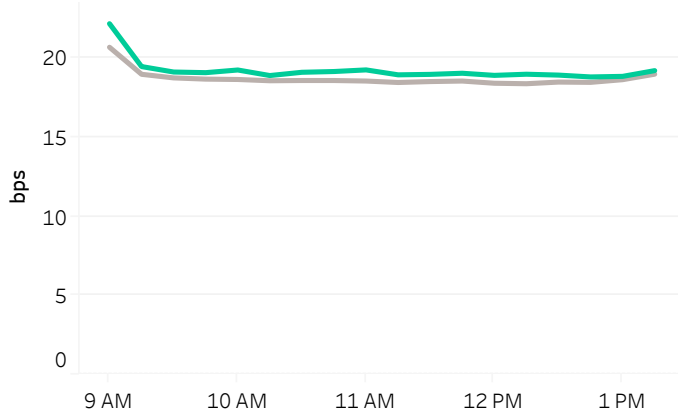
Source data: Virtu Financial

Taiwan

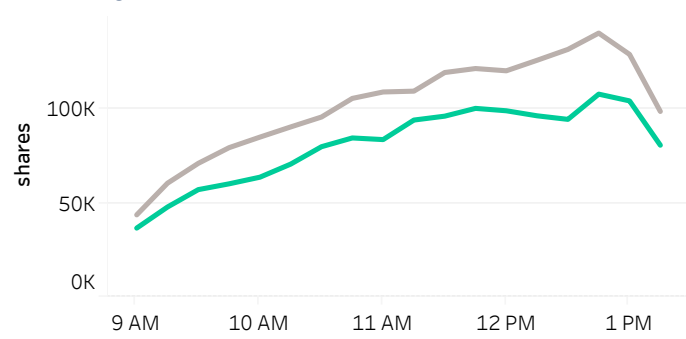
Volume Curve



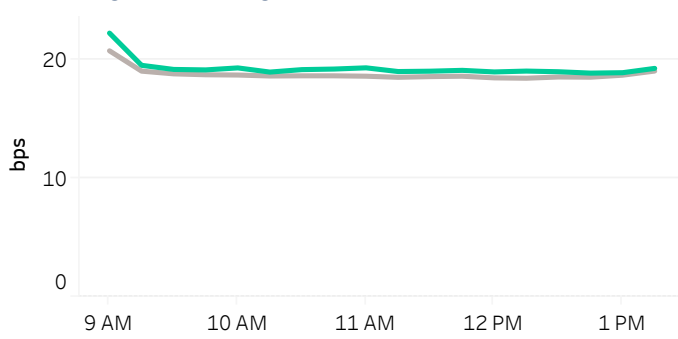
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	20.5	19.9	20.3	19.6	19.5	19.6	19.5	19.5	19.8	19.6	19.9	20.2	21.2
MidDay	18.8	18.8	19.0	18.2	18.6	18.6	18.3	18.3	18.4	18.8	19.1	18.9	19.2
LastHalfHo..	18.8	19.0	19.1	18.6	18.7	18.8	18.3	18.6	18.6	18.9	19.2	19.1	19.2

One Minute Volatility Bps

FirstHalfHo..	37.1	32.6	33.3	29.9	30.6	32.8	31.3	32.7	32.9	34.8	34.3	35.0	37.1
MidDay	36.4	29.8	31.1	26.4	27.8	29.2	28.6	28.9	28.7	28.6	28.6	31.0	31.2
LastHalfHo..	34.4	29.9	31.5	27.6	28.1	30.3	28.7	30.4	29.5	30.3	29.5	31.4	32.2

Quotesize (shares)

FirstHalfHo..	44,628	44,984	46,915	50,161	52,263	57,046	48,244	57,635	48,604	56,638	56,775	50,128	40,566
MidDay	95,368	103,352	109,280	111,917	104,185	124,365	117,027	110,699	96,467	113,228	104,741	88,207	77,955
LastHalfHo..	100,542	105,527	109,997	124,934	124,186	118,507	116,047	117,591	108,108	123,357	120,731	100,832	83,161

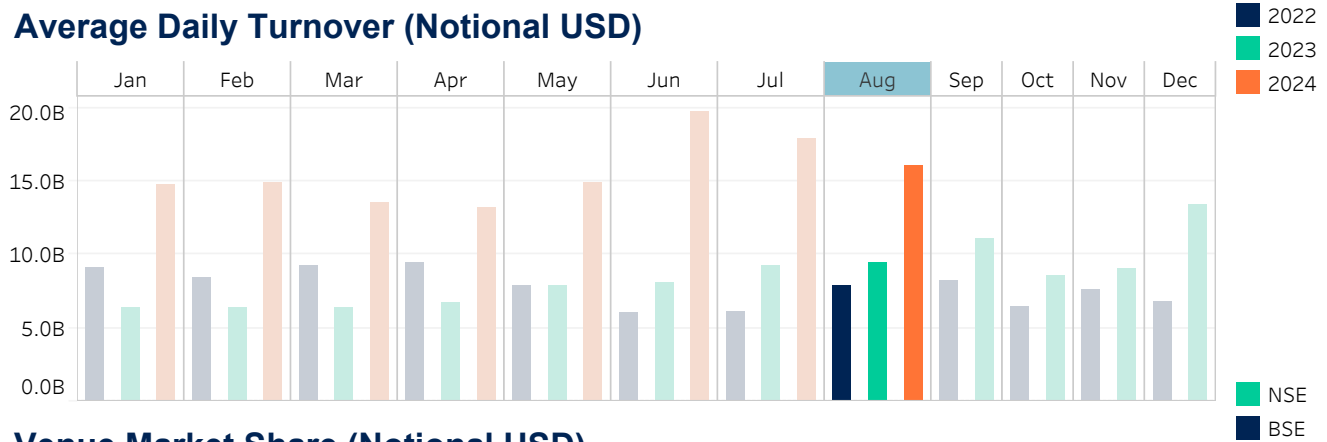
Median used for all metrics

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

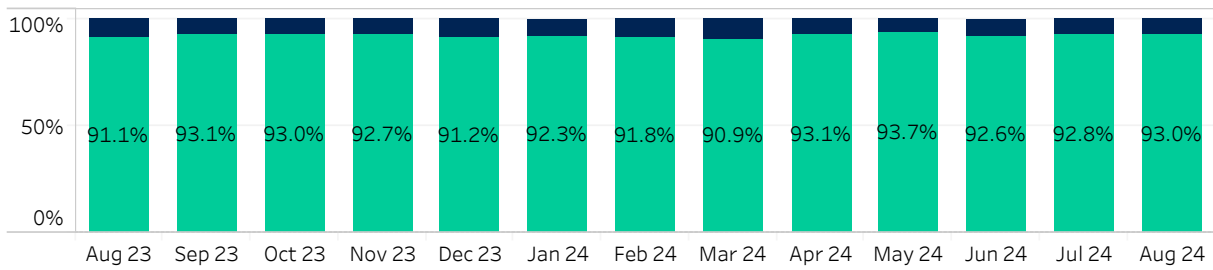
Source data: Virtu Financial

India

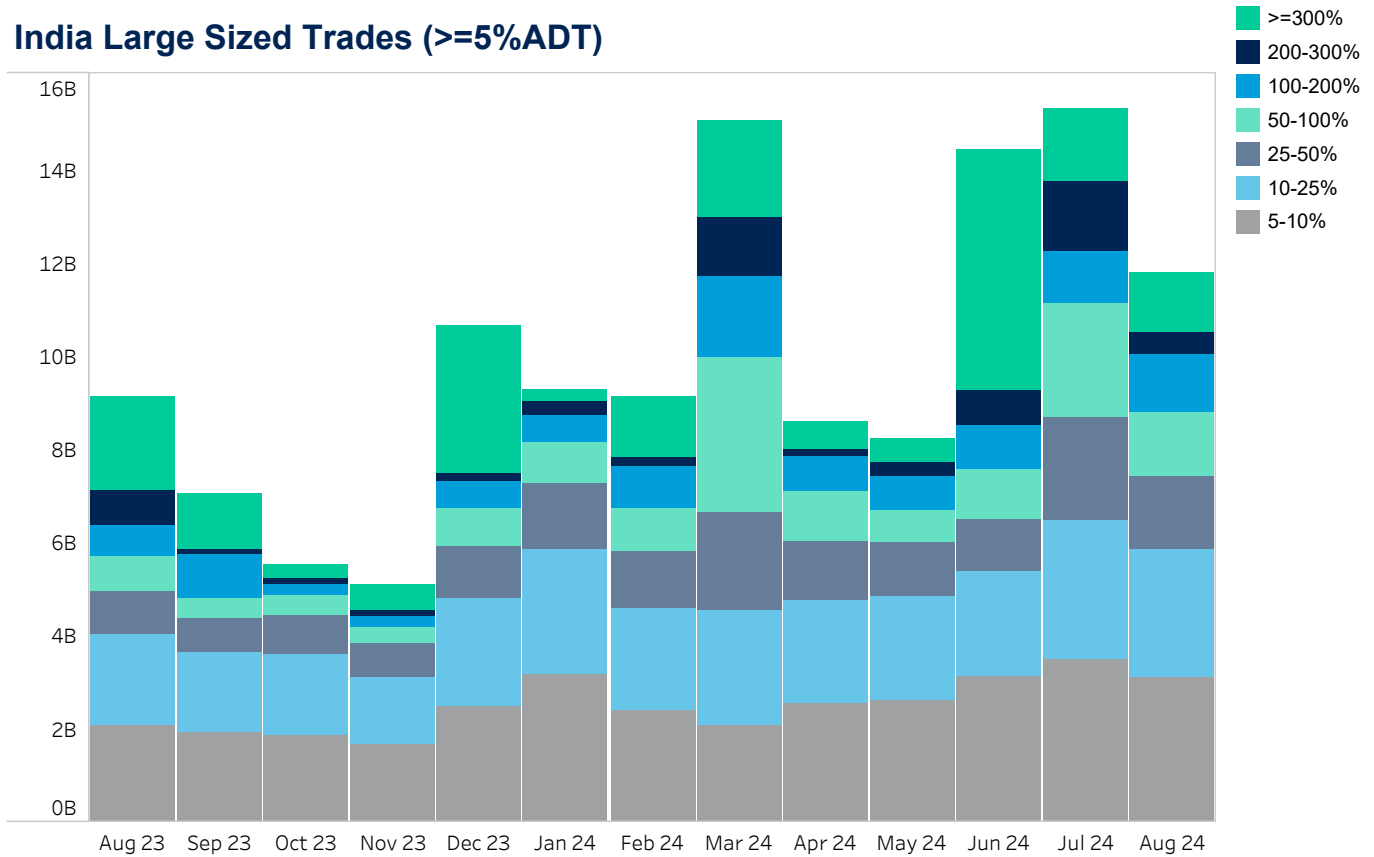
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)

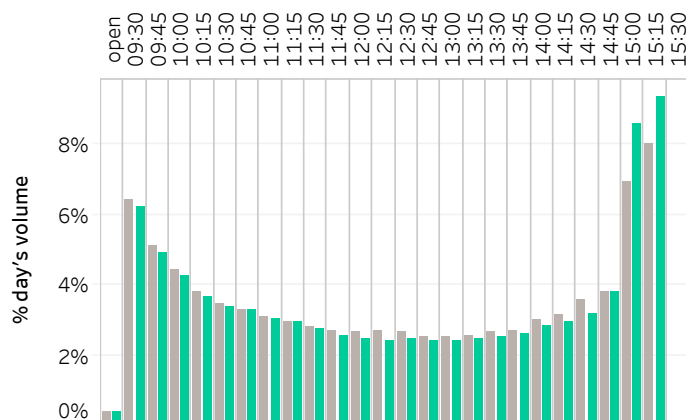


India Large Sized Trades (>=5%ADT)

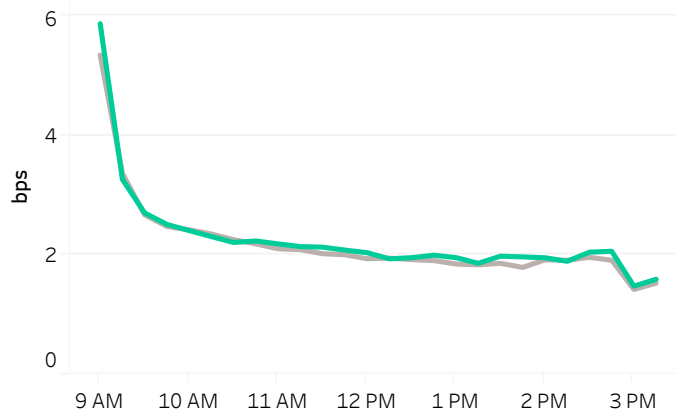


India

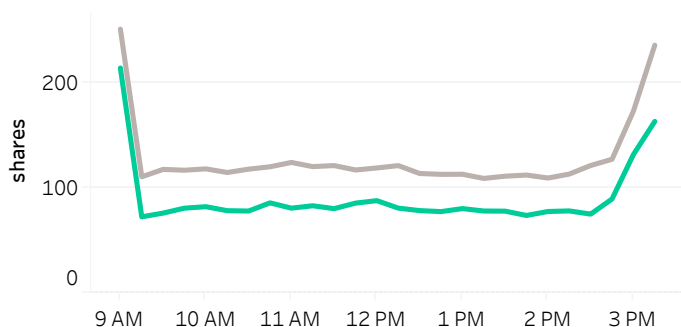
Volume Curve



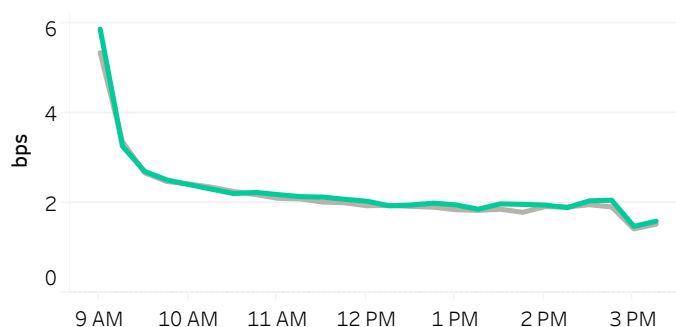
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	3.5	3.5	3.4	3.2	3.4	3.5	3.5	3.3	3.4	3.5	3.5	3.2	3.3
MidDay	1.9	2.0	1.8	2.0	1.9	1.9	2.0	1.9	2.0	2.1	2.0	2.0	2.0
LastHalfHo..	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.7	1.6	1.4	1.5

One Minute Volatility Bps

FirstHalfHo..	16.2	16.3	17.3	14.7	17.9	19.6	19.6	19.5	19.6	20.1	22.5	19.1	17.4
MidDay	7.4	7.6	7.6	7.1	8.0	8.7	9.1	8.9	8.4	8.9	9.4	8.5	8.0
LastHalfHo..	9.6	9.6	9.5	8.7	10.5	10.8	11.2	12.1	10.6	11.6	11.6	10.3	10.3

Quotesize (shares)

FirstHalfHo..	114.8	117.2	112.5	108.1	118.4	102.2	90.9	91.8	88.1	85.8	92.9	89.2	78.4
MidDay	118.6	120.7	108.5	116.7	118.3	99.1	90.4	91.0	94.1	90.6	93.3	85.5	80.5
LastHalfHo..	206.0	230.8	197.4	229.1	196.5	182.0	169.3	188.1	191.5	147.4	174.9	158.2	157.2

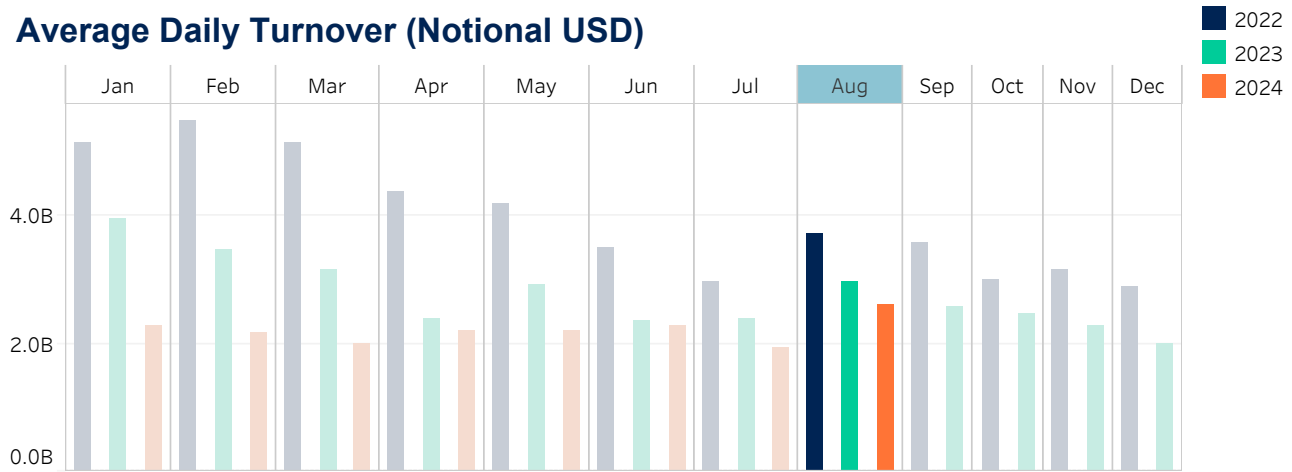
Median used for all metrics

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

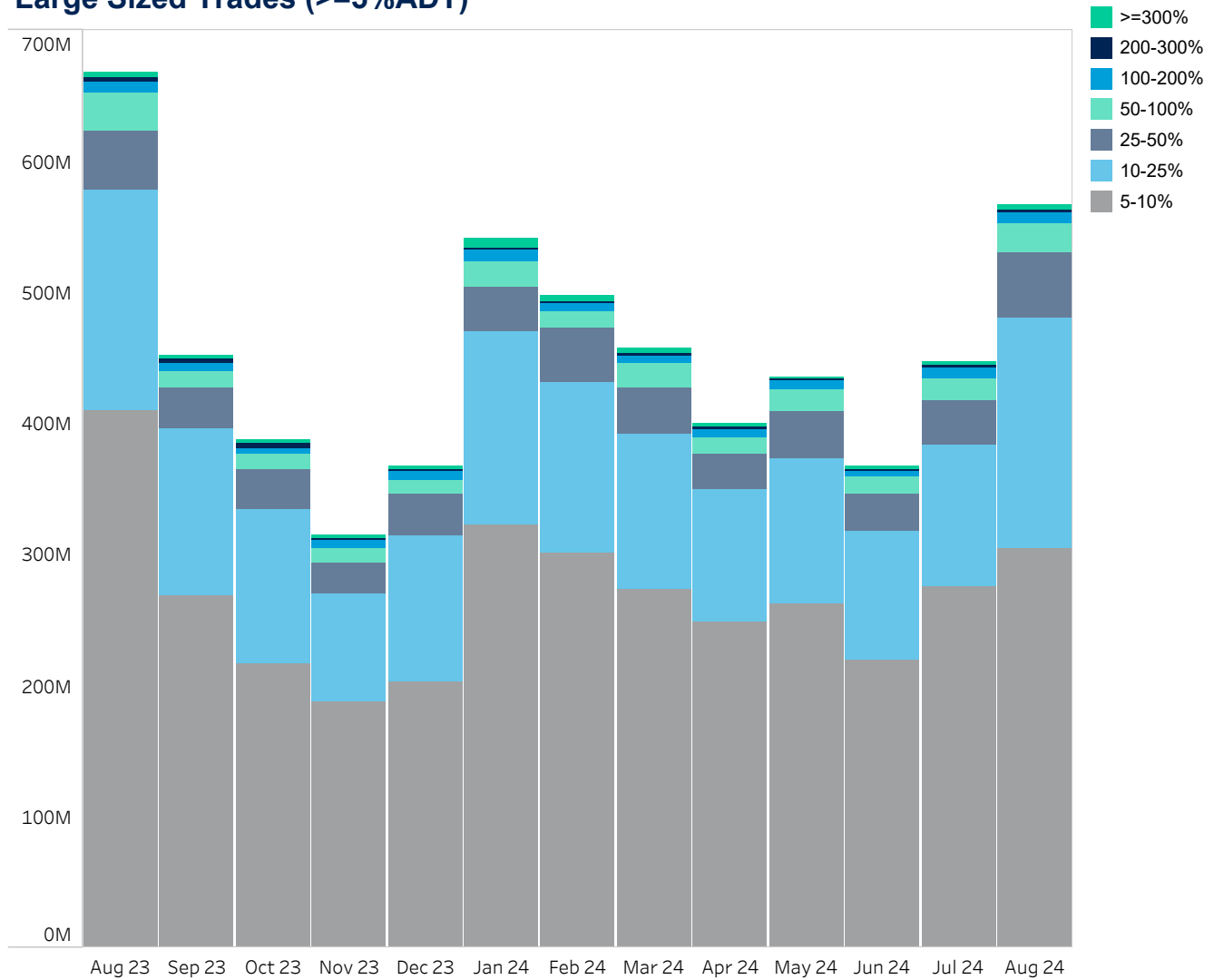
Source data: Virtu Financial

Thailand

Average Daily Turnover (Notional USD)



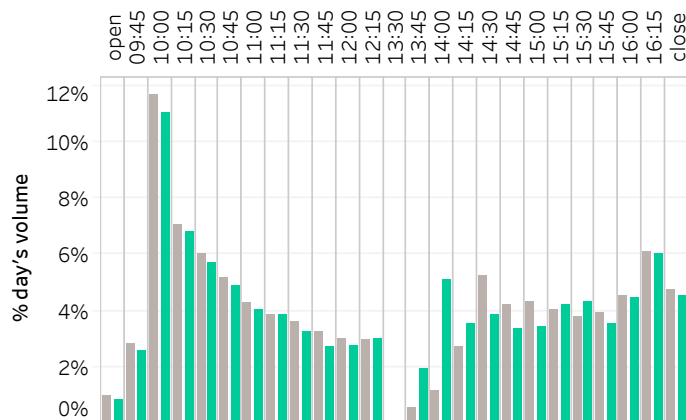
Large Sized Trades (>=5%ADT)



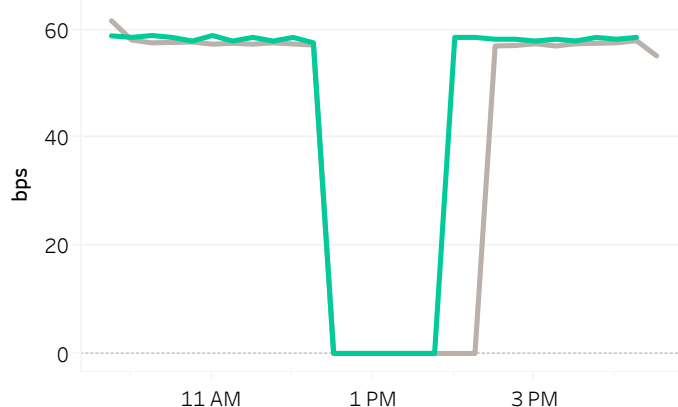
Source data: Virtu Financial

Thailand

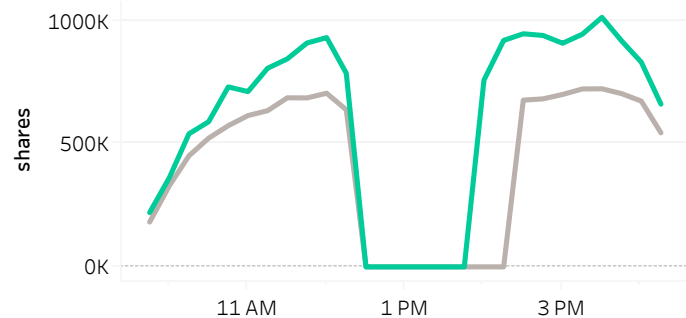
Volume Curve



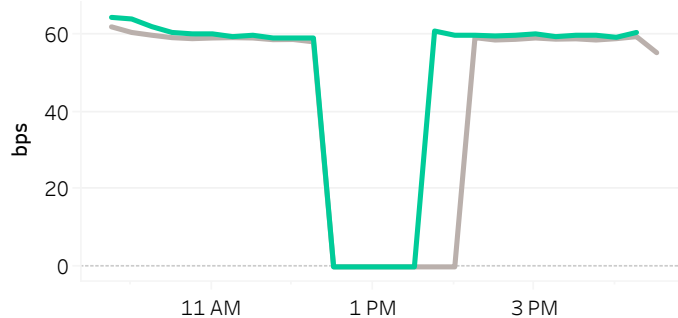
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	62.3	61.9	64.3	62.7	64.0	61.2	60.1	58.8	60.0	58.7	58.6	57.6	58.9
MidDay	56.3	58.7	59.3	58.3	59.2	57.6	57.0	56.2	58.0	57.6	57.3	56.7	58.3
LastHalfHo..	57.0	59.0	59.3	59.0	51.4	58.3	57.3	56.3	58.0	58.0	57.6	57.0	58.6

One Minute Volatility Bps

FirstHalfHo..	61.7	61.2	64.3	63.5	63.8	61.2	62.3	60.4	60.8	61.5	61.5	61.5	64.3
MidDay	58.3	60.1	60.4	60.4	60.4	59.3	58.1	57.6	58.8	58.8	58.1	57.8	60.1
LastHalfHo..	58.7	59.0	60.8	60.4	51.4	59.3	58.1	57.6	59.0	59.0	58.3	58.0	60.1

Quotesize (shares)

FirstHalfHo..	205,336	202,658	146,123	160,913	162,686	190,460	187,498	201,086	203,810	251,426	207,077	251,215	231,332
MidDay	699,283	749,767	485,941	528,048	602,762	686,060	674,355	709,700	770,373	786,167	647,182	795,456	834,632
LastHalfHo..	619,275	626,196	465,624	501,806	371,650	597,307	602,884	611,971	624,177	686,745	575,749	734,601	699,140

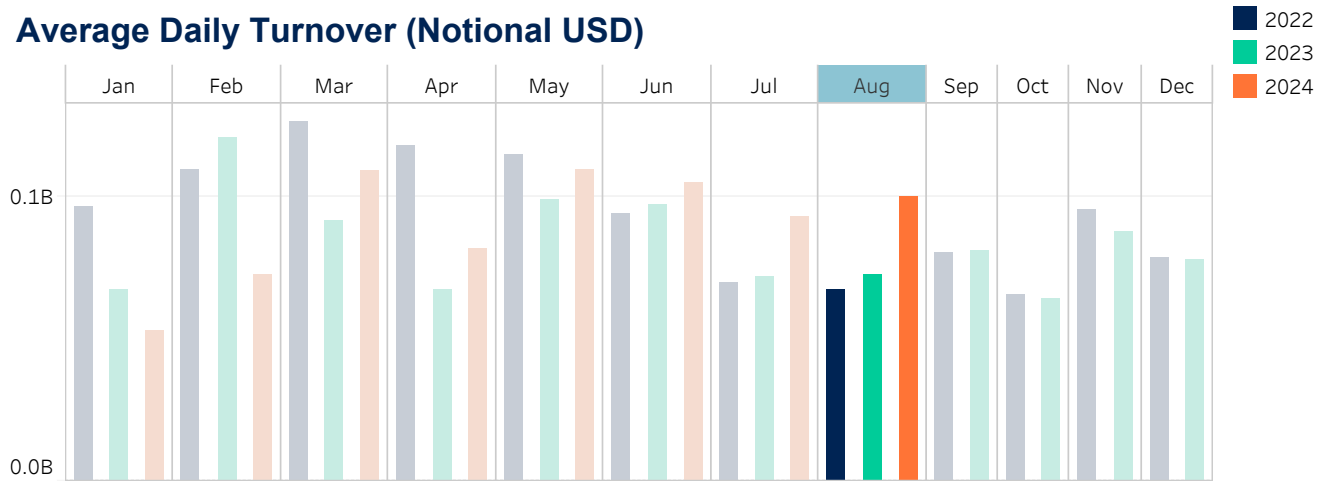
Median used for all metrics

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

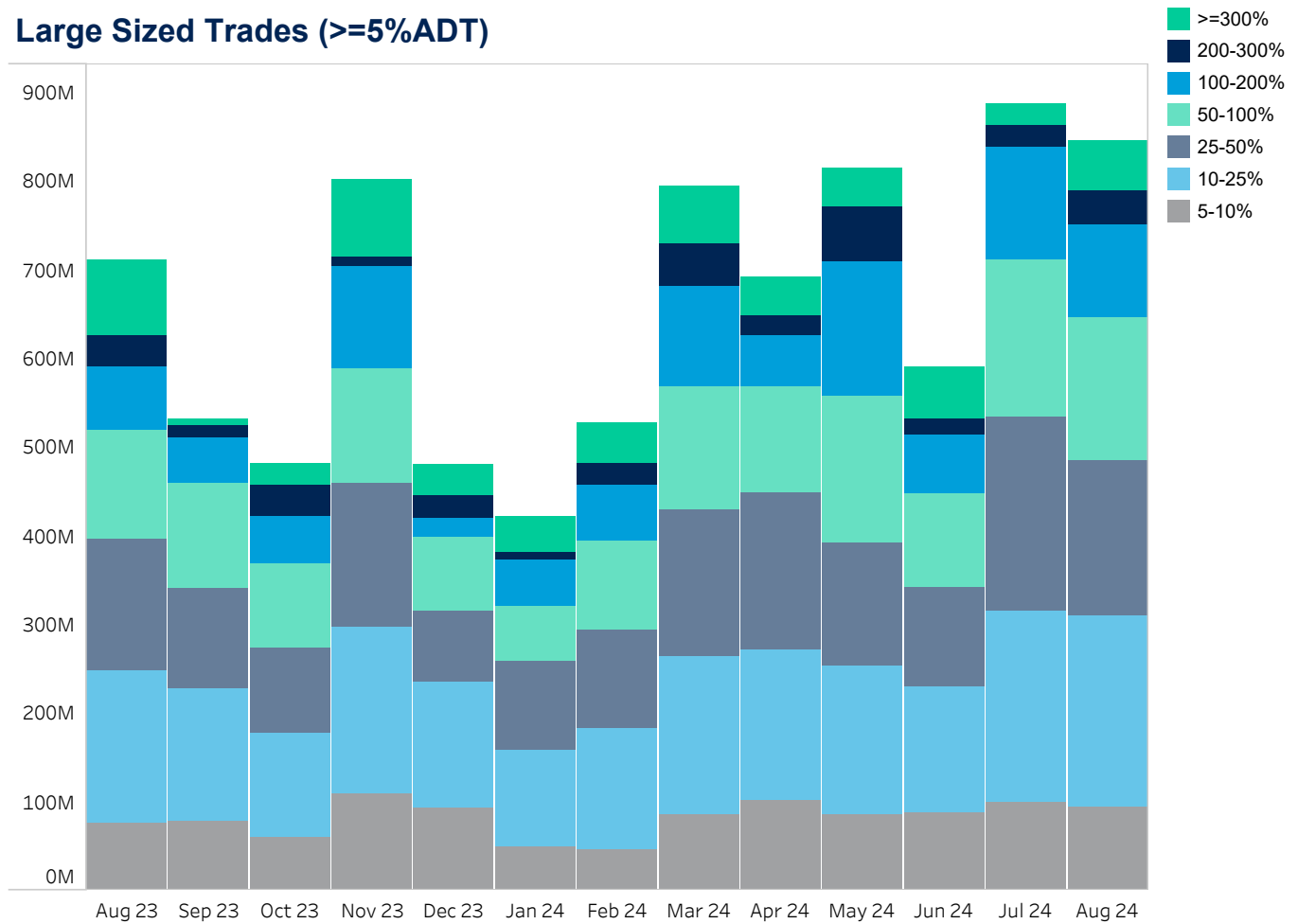
Source data: Virtu Financial

New Zealand

Average Daily Turnover (Notional USD)



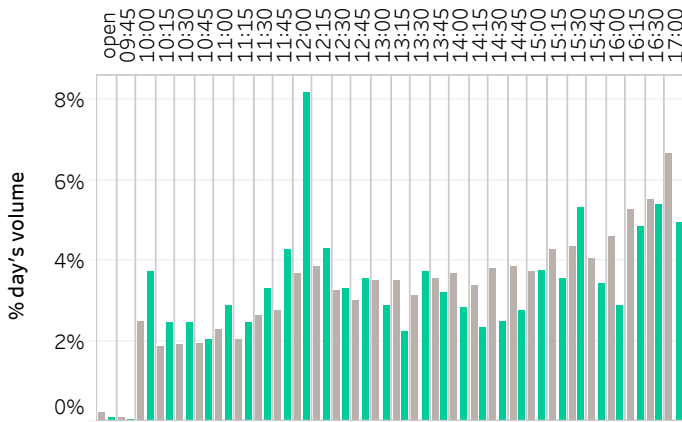
Large Sized Trades (>=5%ADT)



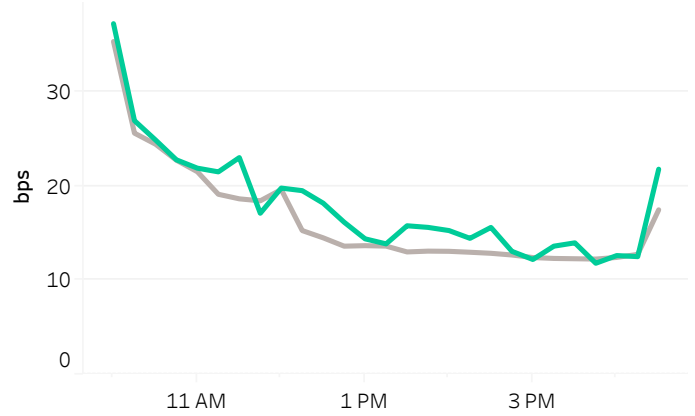
Source data: Virtu Financial

New Zealand

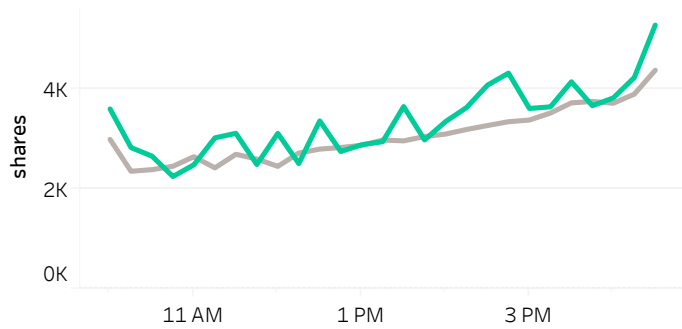
Volume Curve



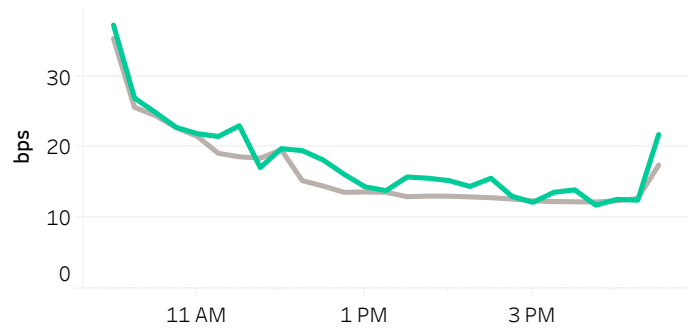
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	26.0	30.3	28.2	28.9	35.4	37.0	35.1	31.2	34.3	26.1	30.5	26.2	32.3
MidDay	14.5	12.4	14.7	14.3	16.7	17.1	19.6	12.7	12.5	11.6	12.5	13.0	15.2
LastHalfHo..	18.0	16.3	19.7	18.1	18.6	22.2	22.5	17.1	15.6	13.0	15.8	15.9	22.0

One Minute Volatility Bps

FirstHalfHo..	19.0	20.9	23.1	19.9	19.4	29.1	28.3	23.8	26.1	24.6	26.5	24.0	24.5
MidDay	13.7	12.5	15.0	14.6	16.4	17.2	19.2	12.3	12.1	11.7	13.0	13.1	14.3
LastHalfHo..	18.4	19.4	20.8	19.6	19.3	22.5	23.4	20.4	17.3	15.6	21.4	21.4	22.8

Quotesize (shares)

FirstHalfHo..	2,981	2,681	3,043	2,397	2,093	2,584	3,199	2,413	2,650	2,904	2,527	2,215	2,957
LastHalfHo..	4,567	3,988	4,171	4,335	4,150	4,284	4,516	4,518	3,911	4,530	4,644	4,072	5,195
MidDay	3,363	3,098	3,456	2,624	2,939	2,784	3,414	2,746	2,757	2,885	2,903	2,753	3,312

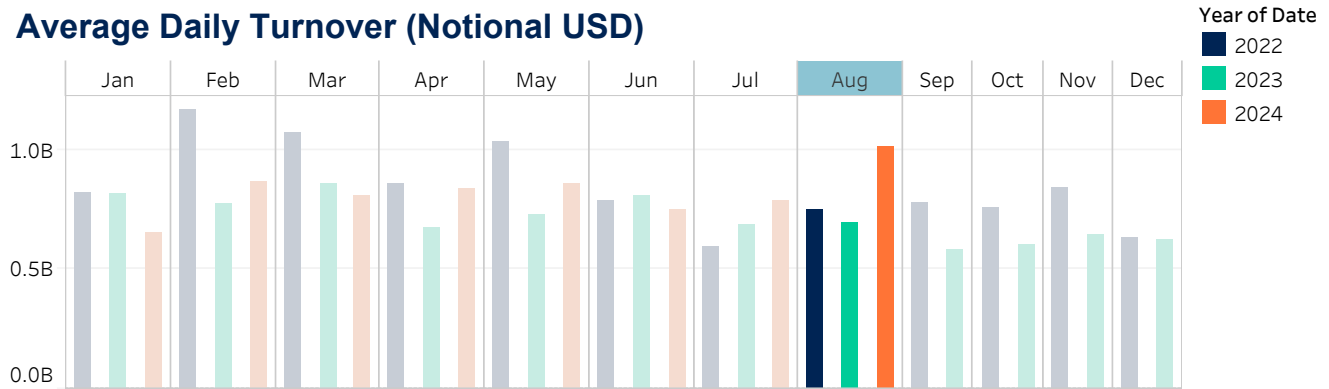
Median used for all metrics

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

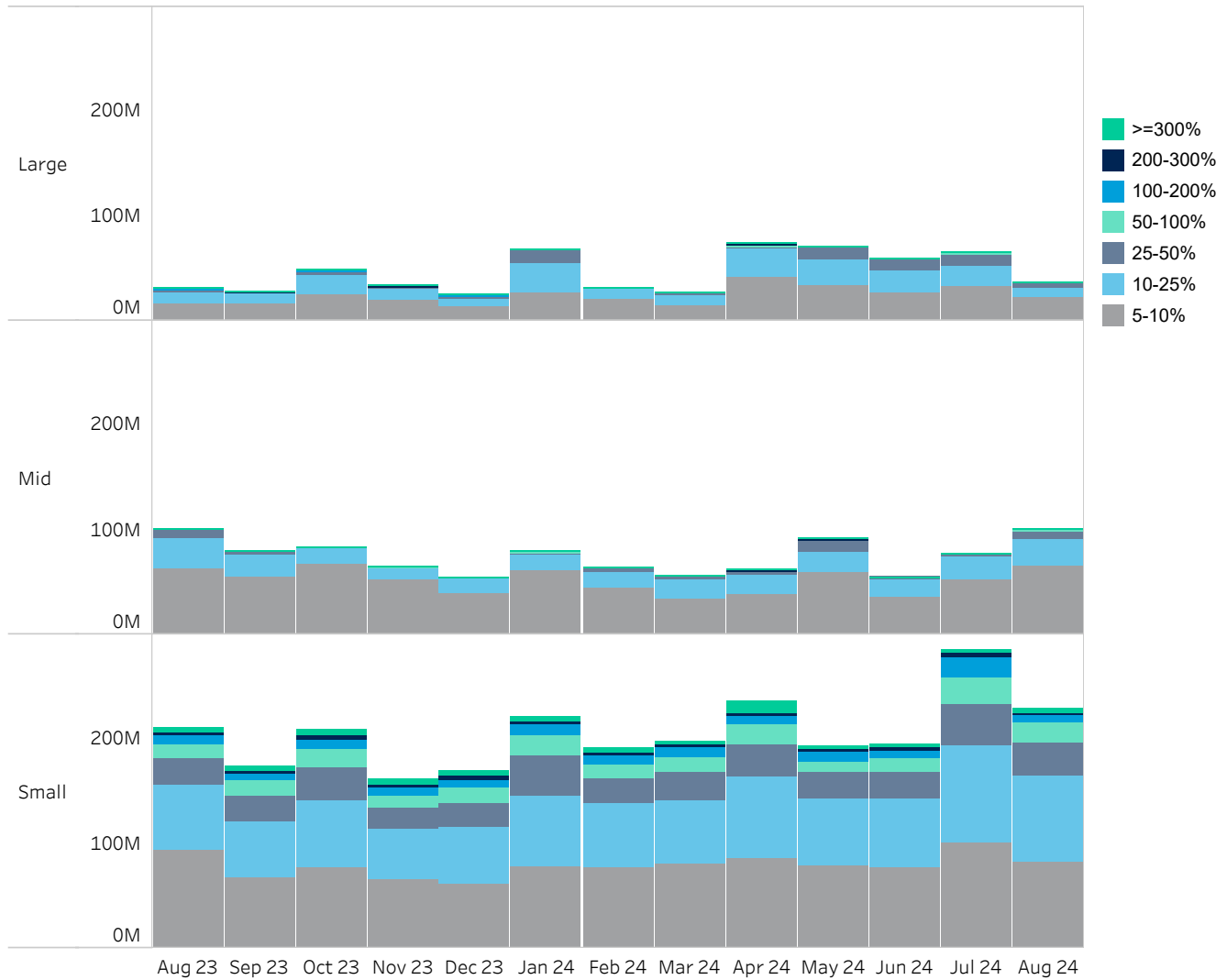
Source data: Virtu Financial

Singapore

Average Daily Turnover (Notional USD)



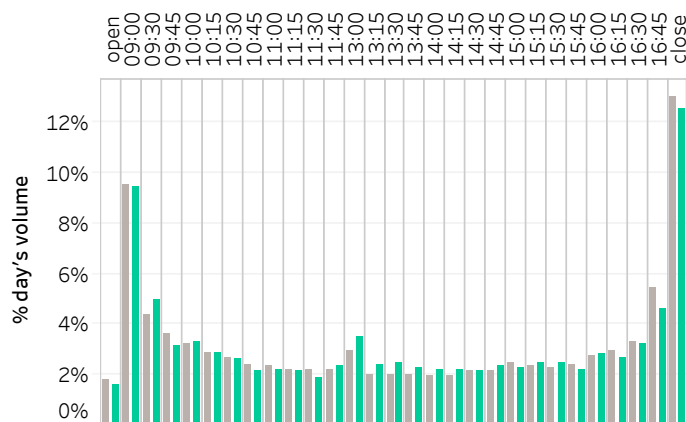
Large Sized Trades (>=5%ADT)



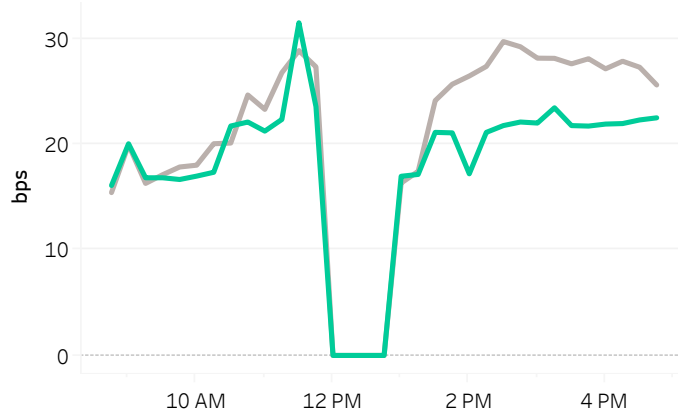
Source data: Virtu Financial

Singapore

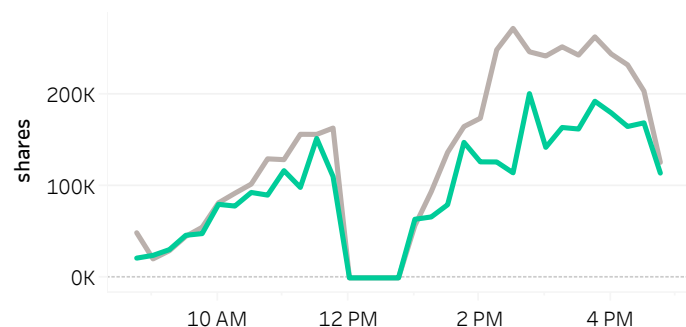
Volume Curve



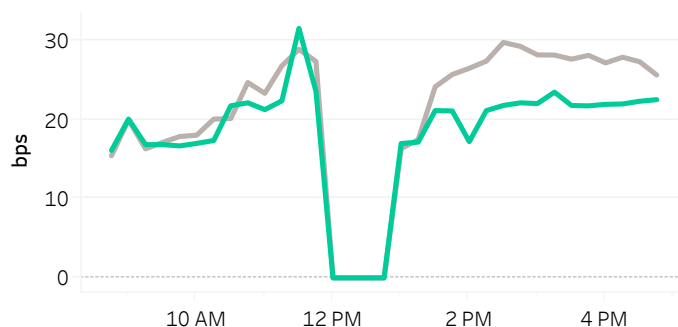
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg August 2024

Spread Bps

	2023					2024							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
FirstHalfHo..	19.1	16.2	15.8	16.8	15.1	15.0	15.0	18.7	15.6	14.5	14.8	14.4	16.9
MidDay	27.1	26.7	28.5	26.5	28.9	26.8	18.1	30.0	36.7	19.2	24.7	22.8	21.3
LastHalfHo..	26.3	26.9	29.5	27.1	28.0	29.7	26.4	29.4	28.6	24.4	24.7	23.5	22.5

One Minute Volatility Bps

FirstHalfHo..	51.4	31.3	50.6	52.8	40.9	41.6	42.5	39.9	52.1	37.7	39.0	33.8	44.9
MidDay	27.6	27.0	31.3	27.3	29.1	28.8	26.3	34.2	36.9	24.3	24.8	27.0	22.4
LastHalfHo..	28.0	27.4	32.6	27.9	29.4	32.6	30.4	30.1	34.1	29.7	30.0	31.8	31.5

Quotesize (shares)

FirstHalfHo..	30,361	36,050	50,518	72,786	53,345	55,164	68,837	35,573	61,123	43,399	46,845	37,261	30,750
MidDay	232,427	176,852	239,708	89,777	193,459	181,018	116,322	187,792	374,365	110,102	148,668	152,415	103,521
LastHalfHo..	181,844	179,377	226,408	119,166	139,335	199,052	164,279	161,581	161,143	143,389	182,647	158,047	135,215

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:

Australia: ASX 200

Japan: TOPIX

China: CSI 300

Hong Kong: Hang Seng Index

Taiwan: TWSE

India: NIFTY 50

Korea: MSCI Korea 25/50 Index

New Zealand: MSCI New Zealand IMI 25/50 Index

Singapore: MSCI Singapore Index

Thailand: MSCI Thailand IMI 25/50 Index

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