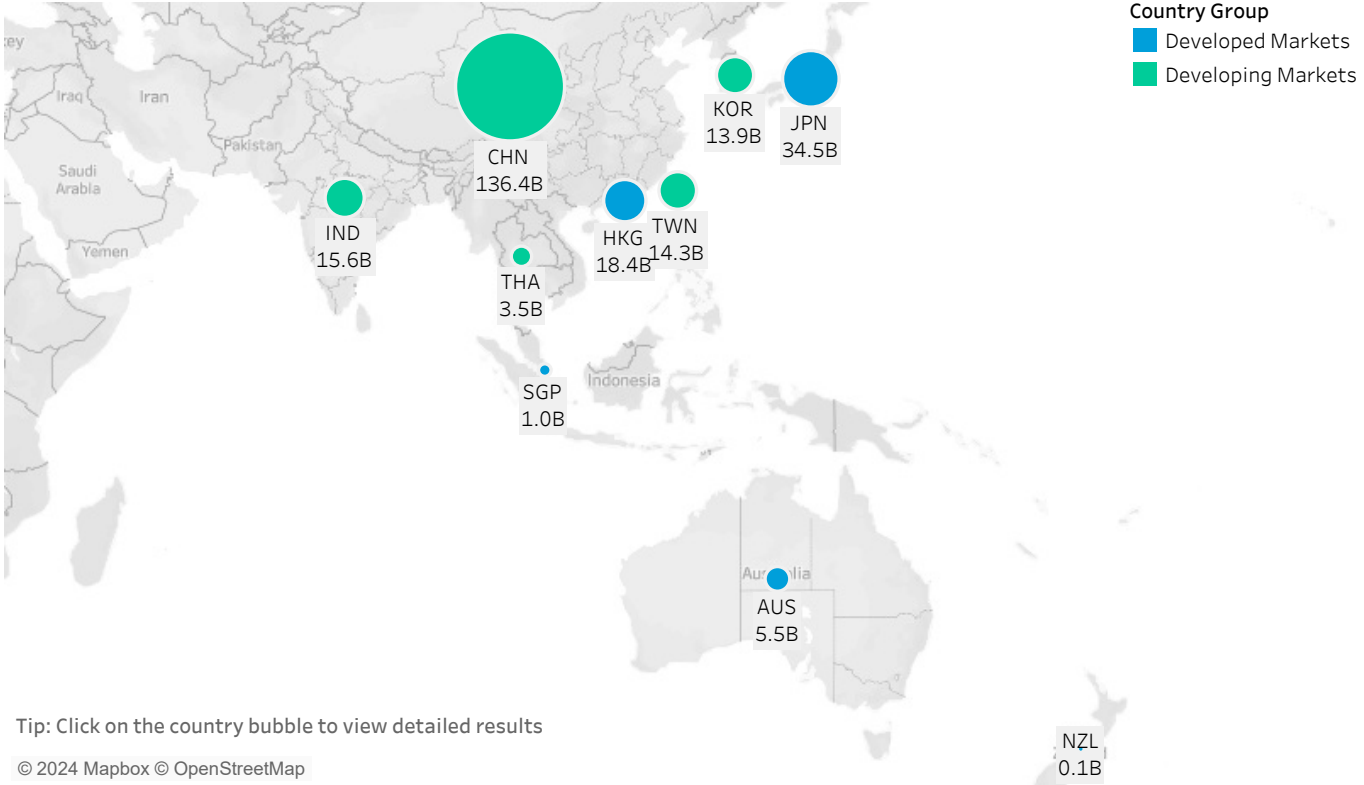


September 2024 APAC Market Structure Monthly

Average Daily Turnover (Notional USD)



Country Breakdowns

Hong Kong

China

Japan

Australia

South Korea

Taiwan

India

Thailand

New Zealand

Singapore

Sep 2024

AP Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- Hong Kong and China saw a sharp rebound in trading activity in September 2024 after consecutive monthly decreases in average daily turnover (ADT) since May 2024. Month-over-month (MoM) ADT in Hong Kong and China increased by +80% and +40% to US\$18.4B and US\$136.4B in September. This was broadly initiated by a series of supply-side stimulus by the Chinese government during the last week of September.
- ADT in Australia increased +10% MoM to US\$5.5B in September 2024, reaching a year-to-date (YTD) monthly high. Conversely, ADT in Japan fell 13% MoM to US\$34.5B in September. Intraday spread and volatility in Japan reverted to second quarter 2024 levels in September after higher volatility in the TOPIX the prior month.
- The heightened trading activity in Hong Kong led to increased market volatility in September 2024, as one minute volatility in first half hour of trading increased +15% MoM to 28bps.

AP MARKET STRUCTURE NEWS

Vietnam To End Stock Pre-Funding Rule from 2 November 2024

On 18 September 2024, the finance ministry of Vietnam issued a circular announcing that it will remove the requirement for overseas investors to fully pre-fund equity transactions, effective from 2 November 2024. According to the circular, securities companies (SCs) will be required to assess the payment risk of foreign institutional investors (FIIs) to determine the required amount of funds (if any) when placing buy orders, based on an agreement between the SCs and the FIIs or their authorized representatives.

https://ssc.gov.vn/webcenter/portal/ssc/pages_r/l/chitit?dDocName=APPSSCGOVVN1620148236
<https://blinks.bloomberg.com/news/stories/SK07N7T0G1KW>

Tokyo Stock Exchange Publishes English Version of “Tokyo Stock Exchange Official Guide Pricing Mechanism of Arrowhead –Second Edition” (e-Book) Ahead of 5 Nov 2024 Cash Trading Upgrade

On 30 September 2024, Tokyo Stock Exchange (TSE) announced that it plans to review its trading rules of cash equity market in November 2024, including the introduction of Closing Auction. Ahead of this review, on 27 Sep 2024, TSE published the English version of a revised edition of “Tokyo Stock Exchange Official Guide Pricing Mechanism of Arrowhead” (originally published in 2021), to add example questions on the Closing Auction and Special Execution.

<https://www.jpx.co.jp/english/corporate/news/news-releases/0060/20240930-01.html>

Hong Kong Exchange and Clearing Limited Starts Supporting Severe Weather Trading from 23 September 2024

On 16 September 2024, Hong Kong Exchange and Clearing Limited (HKEX) announced that the Severe Weather Trading support came into effect from 23 September 2024. According to HKEX, all Exchange Participants are required to support trading activities during Severe Weather conditions as they would on a regular trading day.

<https://www.hkex.com.hk/-/media/HKEX-Market/News/Market-Consultations/2016-Present/November-2023-Severe-Weather-Trading/cp202406cc.pdf>

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

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+1.646.682.6199

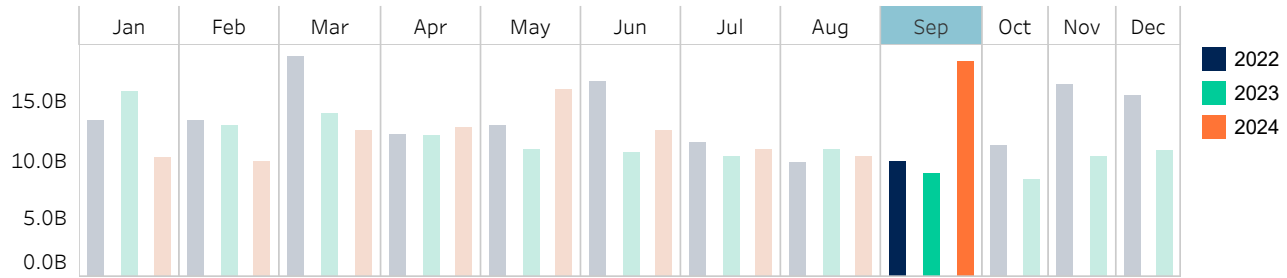
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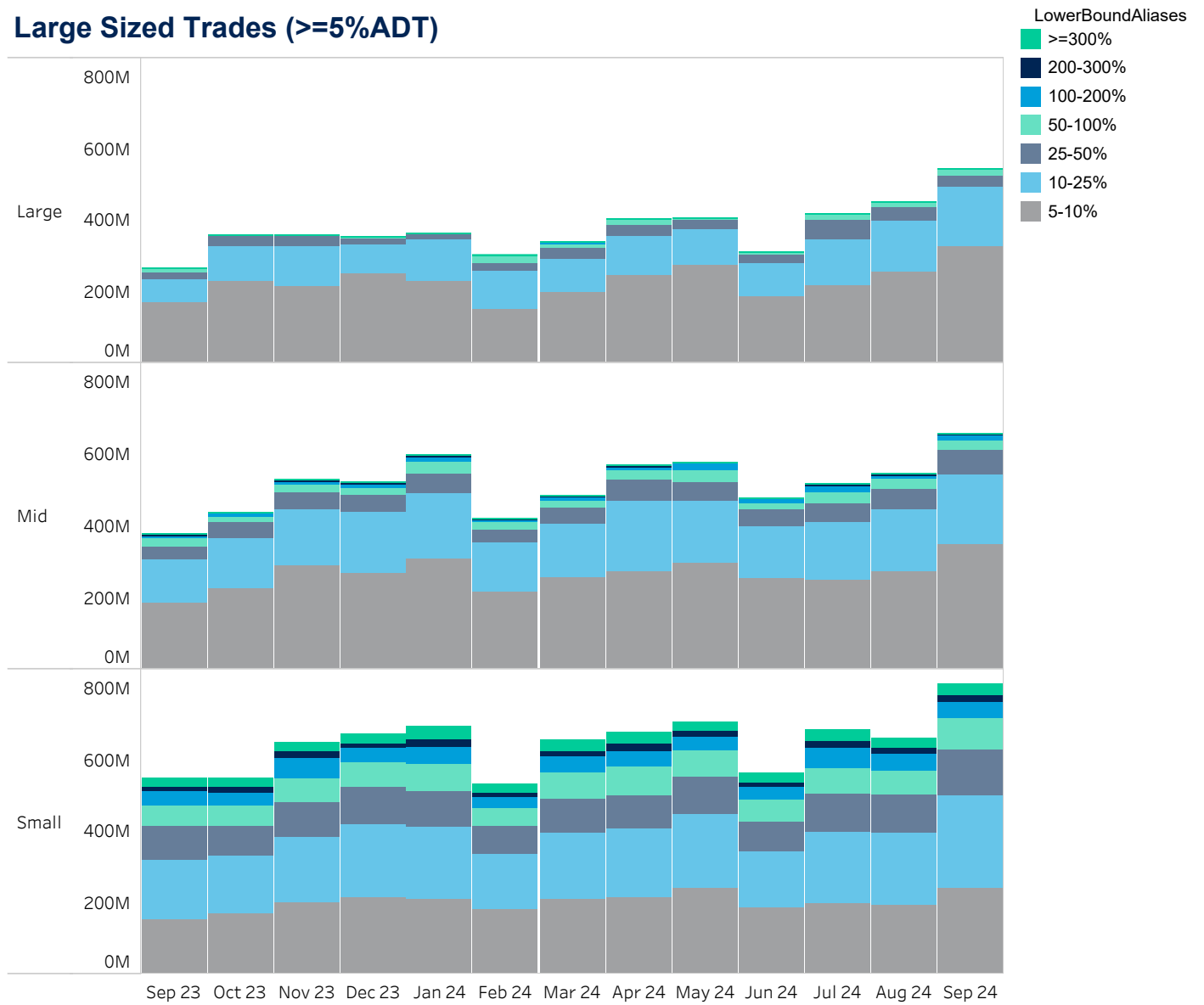
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Hong Kong

Average Daily Turnover (Notional USD)



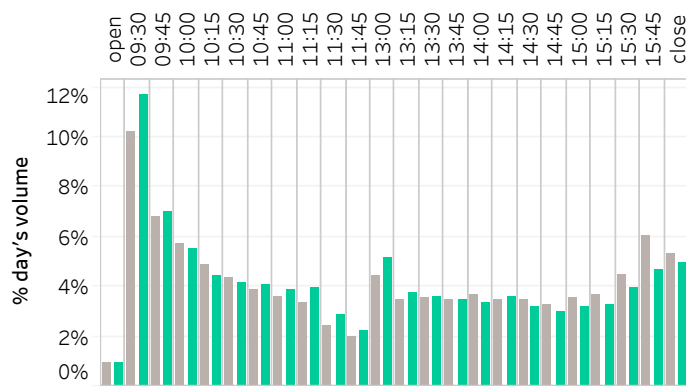
Large Sized Trades (>=5%ADT)



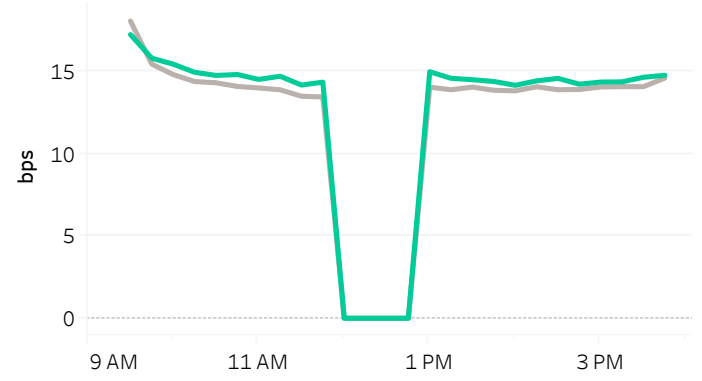
Source data: Virtu Financial

Hong Kong

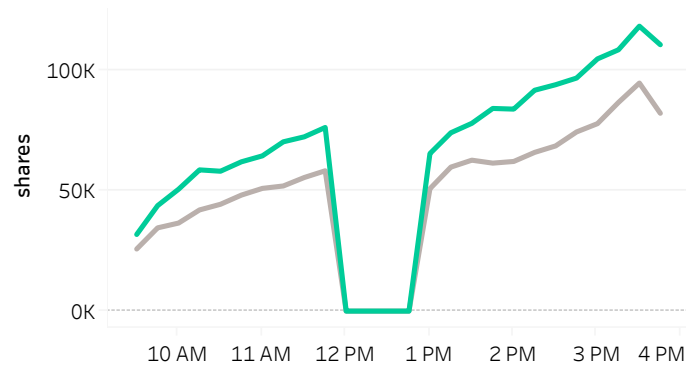
Volume Curve



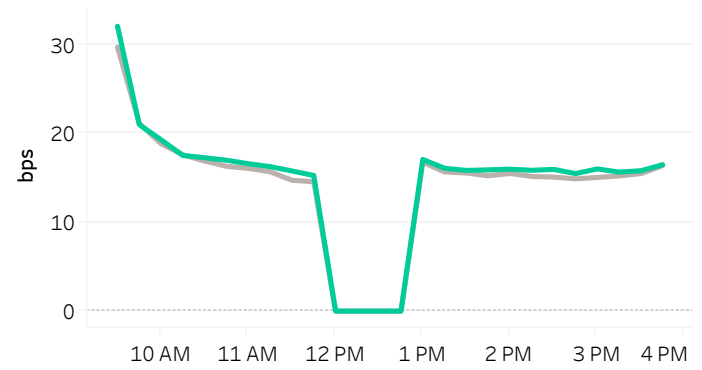
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg (Grey line) September 2024 (Green line)

Spread Bps

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	18.1	18.4	17.1	17.0	16.7	16.8	16.2	16.3	16.0	16.6	17.0	17.2	16.6
MidDay	14.4	14.7	13.4	14.2	14.4	13.6	13.5	13.7	13.5	14.0	14.4	14.8	14.5
LastHalfHo..	14.8	15.0	14.3	15.2	15.1	14.3	13.8	13.9	13.9	14.1	14.6	14.9	14.7

One Minute Volatility Bps

FirstHalfHo..	23.8	24.3	24.3	24.1	25.7	26.8	26.1	26.5	26.0	24.9	24.7	24.6	28.3
MidDay	15.6	16.0	15.2	15.9	16.5	16.1	15.8	15.2	15.3	15.4	15.4	15.8	16.9
LastHalfHo..	16.5	16.6	16.9	17.6	17.3	16.4	15.9	15.3	15.9	15.8	15.6	16.0	16.6

Quotesize (shares)

FirstHalfHo..	28,391	27,601	23,593	24,188	25,581	23,164	28,948	34,226	31,313	32,177	36,901	37,449	35,591
MidDay	52,298	46,953	46,472	52,781	52,997	41,722	57,521	64,130	61,681	64,411	67,617	67,236	73,170
LastHalfHo..	78,499	77,442	72,387	70,619	79,360	72,944	95,535	97,872	98,721	97,430	108,596	105,782	110,466

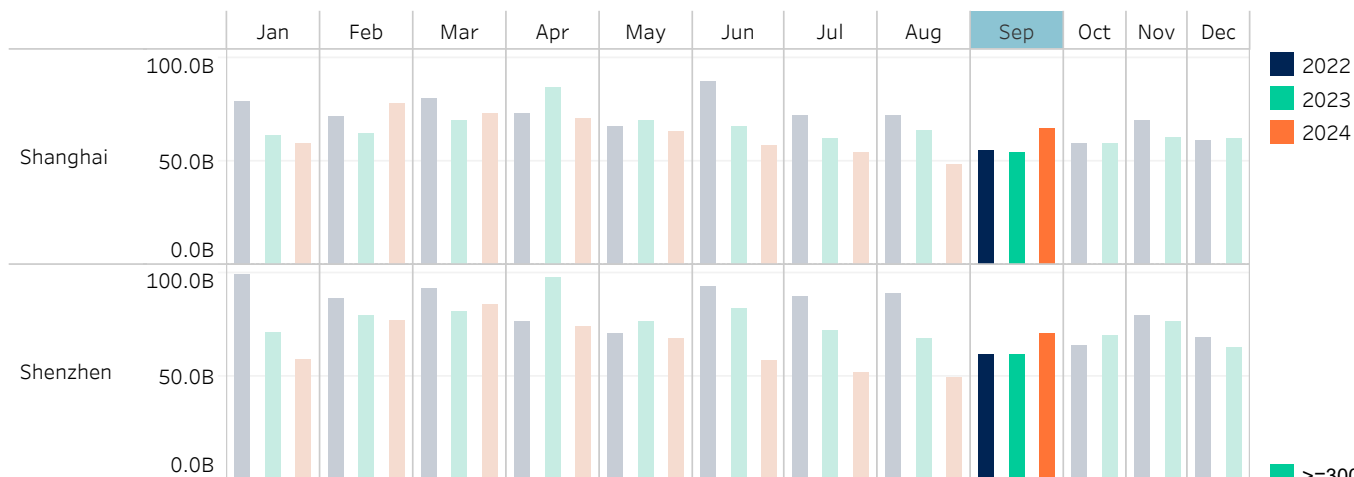
Median used for all metrics

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

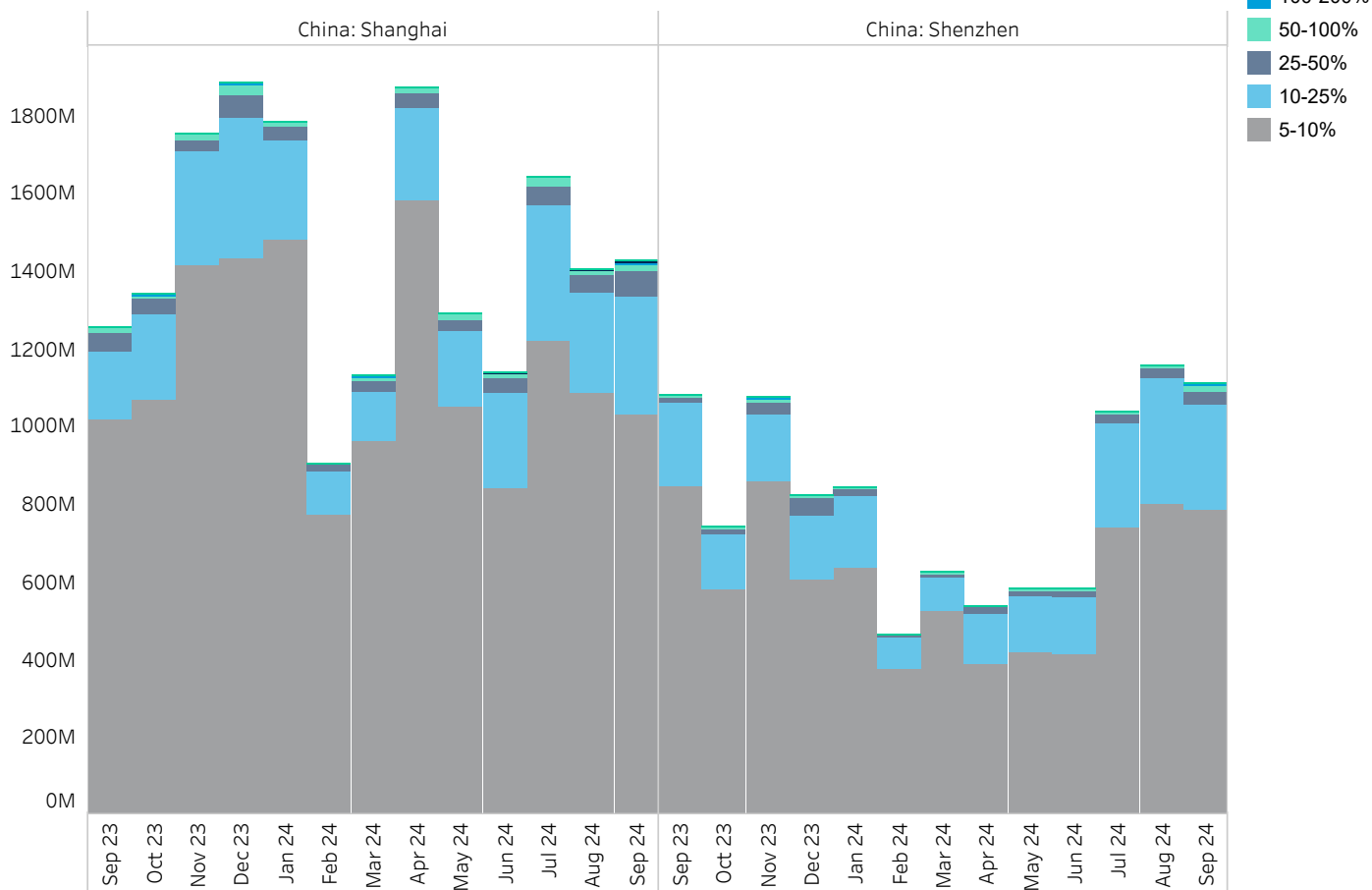
Source data: Virtu Financial

China

Average Daily Turnover (Notional USD)



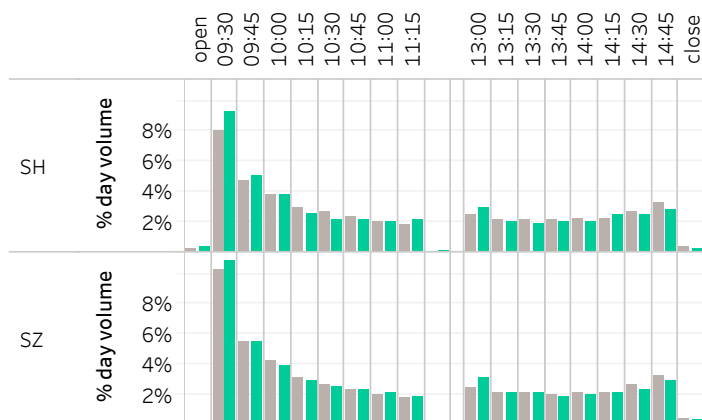
Large Sized Trades (>=5%ADT)



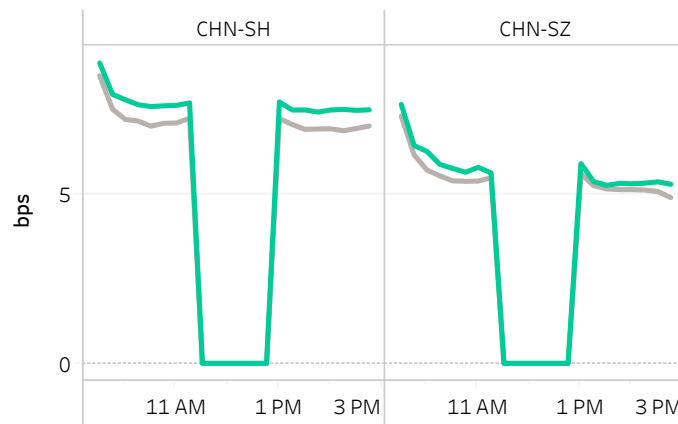
Source data: Virtu Financial

China

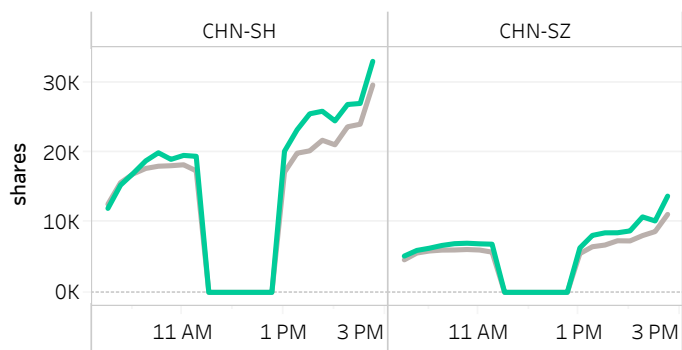
Volume Curve



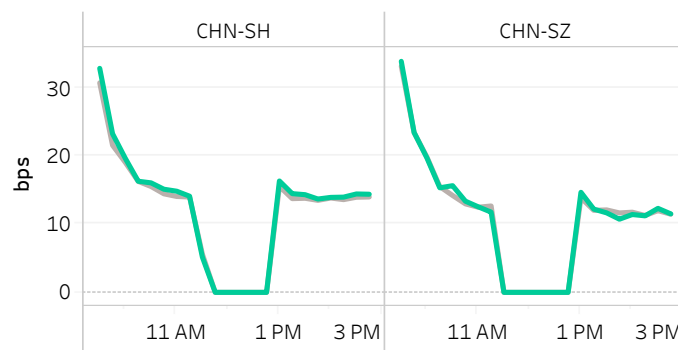
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ September 2024

Spread Bps

	CHN-SH						CHN-SZ					
	Apr	May	Jun	Jul	Aug	Sep	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHour	8.2	7.7	7.9	8.1	8.3	8.5	6.8	6.6	6.8	7.0	7.1	7.2
MidDay	7.0	6.7	7.0	7.3	7.4	7.7	5.5	5.2	5.4	5.6	5.7	5.8
LastHalfHour	6.7	6.4	6.8	7.3	7.4	7.5	5.0	4.8	5.1	5.3	5.4	5.4

One Minute Volatility Bps

FirstHalfHour	29.1	25.2	25.8	27.3	26.5	29.5	30.2	26.0	27.0	28.5	26.5	28.9
MidDay	14.6	13.3	14.0	15.0	14.0	16.1	14.0	11.9	12.5	13.6	12.1	13.9
LastHalfHour	13.9	12.7	14.1	14.7	14.1	14.8	11.7	10.5	12.0	12.3	11.8	12.4

Quotesize (shares)

FirstHalfHour	14,795	16,130	13,737	13,345	12,992	14,870	5,677	5,977	5,165	5,144	5,053	5,919
MidDay	19,057	21,688	18,327	16,893	18,266	20,396	6,807	7,527	6,395	6,100	6,107	7,318
LastHalfHour	29,522	33,861	26,132	25,695	26,034	31,649	11,277	12,303	9,755	9,569	9,969	11,745

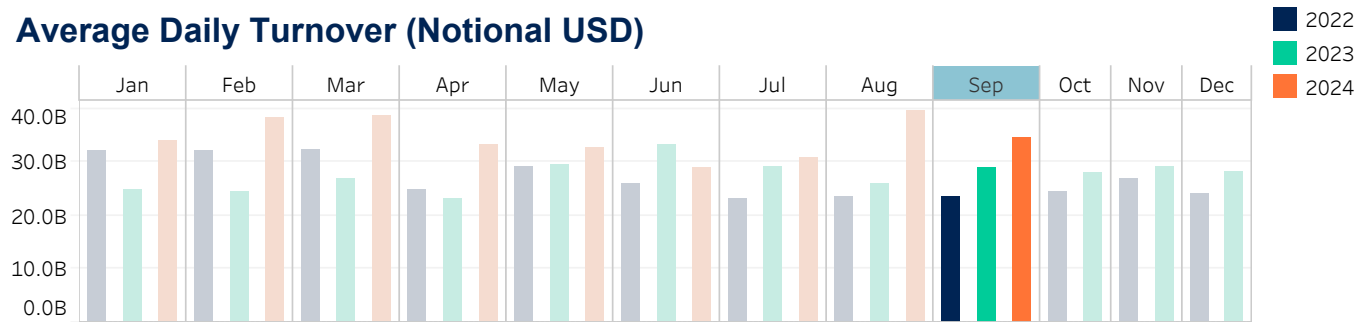
Median used for all metrics

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

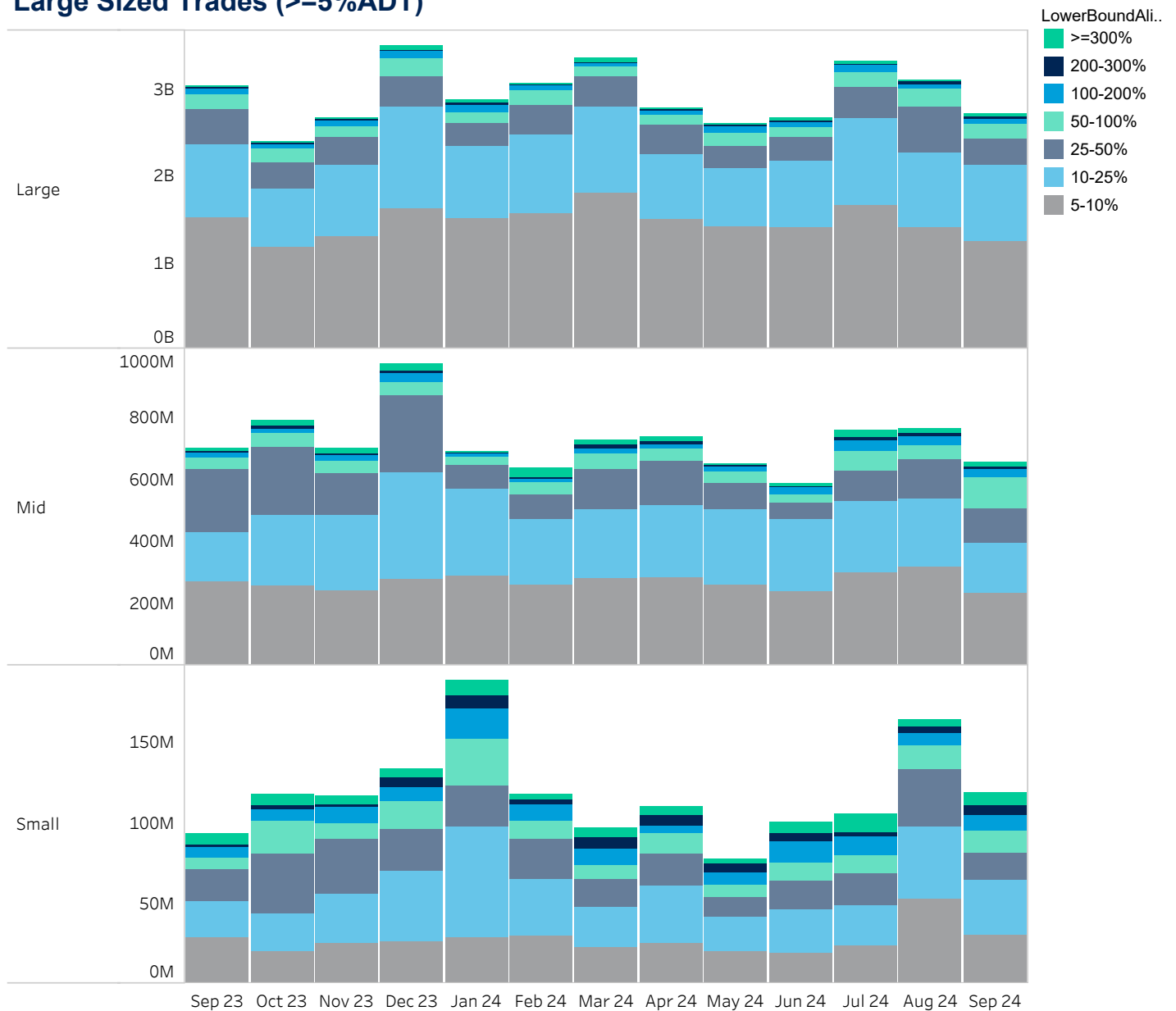
Source data: Virtu Financial

Japan

Average Daily Turnover (Notional USD)



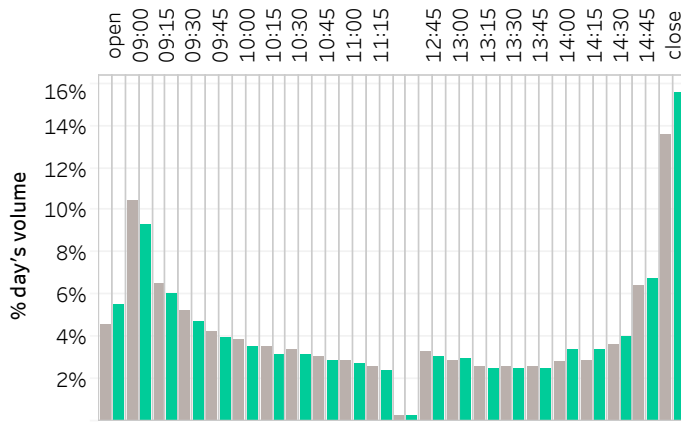
Large Sized Trades (>=5%ADT)



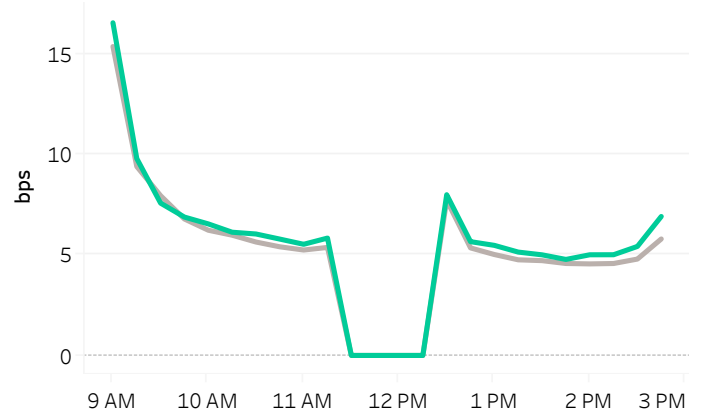
Source data: Virtu Financial

Japan

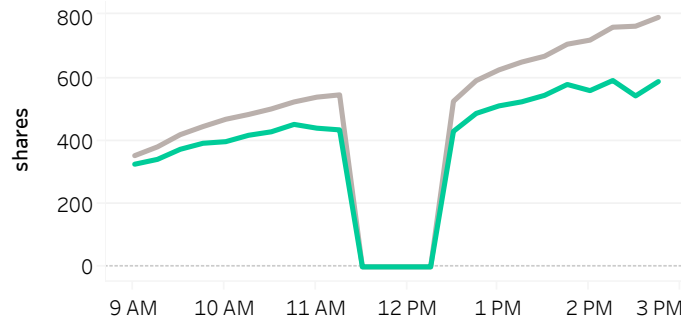
Volume Curve



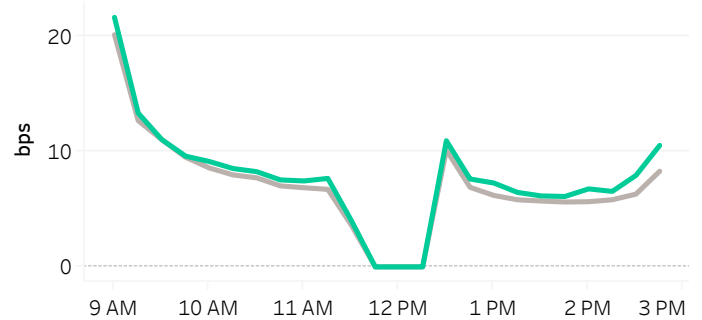
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg (Grey line) September 2024 (Green line)

Spread Bps

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	11.4	13.0	13.5	11.7	11.6	13.1	12.8	12.3	13.0	12.3	12.3	17.4	13.6
MidDay	5.2	5.8	6.0	5.3	5.3	6.0	5.6	5.7	5.5	5.1	5.3	7.9	6.0
LastHalfHo..	5.1	5.7	5.5	5.1	4.9	5.6	5.5	5.2	5.3	5.1	5.3	8.1	6.4

One Minute Volatility Bps

FirstHalfHo..	14.1	16.0	16.8	14.7	14.9	17.1	16.7	16.6	17.4	15.8	15.8	23.4	17.8
MidDay	6.0	7.1	7.3	6.2	6.4	7.3	7.1	7.5	7.0	6.4	6.9	10.6	7.9
LastHalfHo..	6.8	7.9	7.5	7.0	6.8	7.6	7.7	7.7	7.6	7.0	7.5	11.6	9.6

Quotesize (shares)

FirstHalfHo..	387.9	340.1	340.5	356.6	359.3	369.3	368.9	358.4	369.9	378.6	365.6	311.6	328.1
MidDay	579.5	493.7	525.7	550.6	555.1	548.6	534.4	499.1	549.5	568.5	539.3	406.3	452.2
LastHalfHo..	829.3	694.2	778.7	749.6	764.0	784.2	738.9	720.1	833.5	863.7	769.8	536.8	563.2

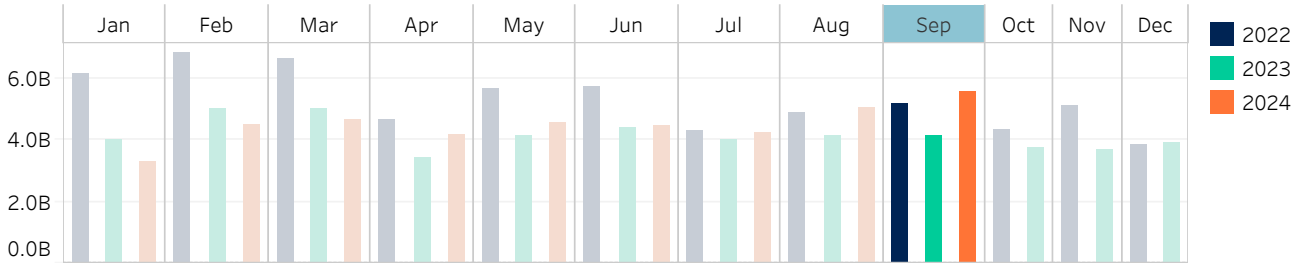
Median used for all metrics

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

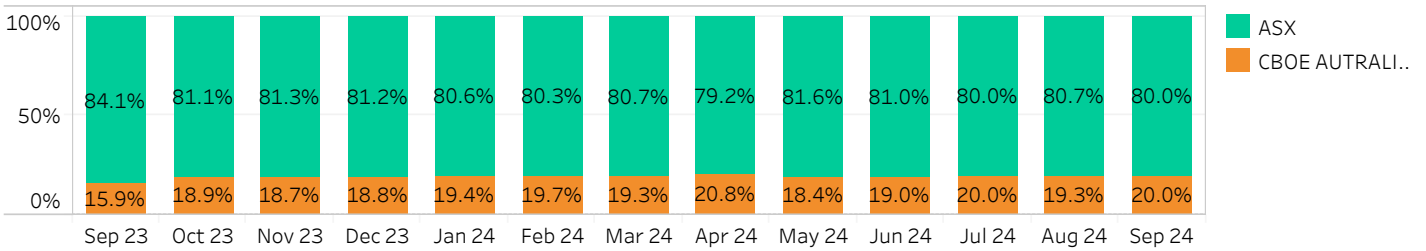
Source data: Virtu Financial

Australia

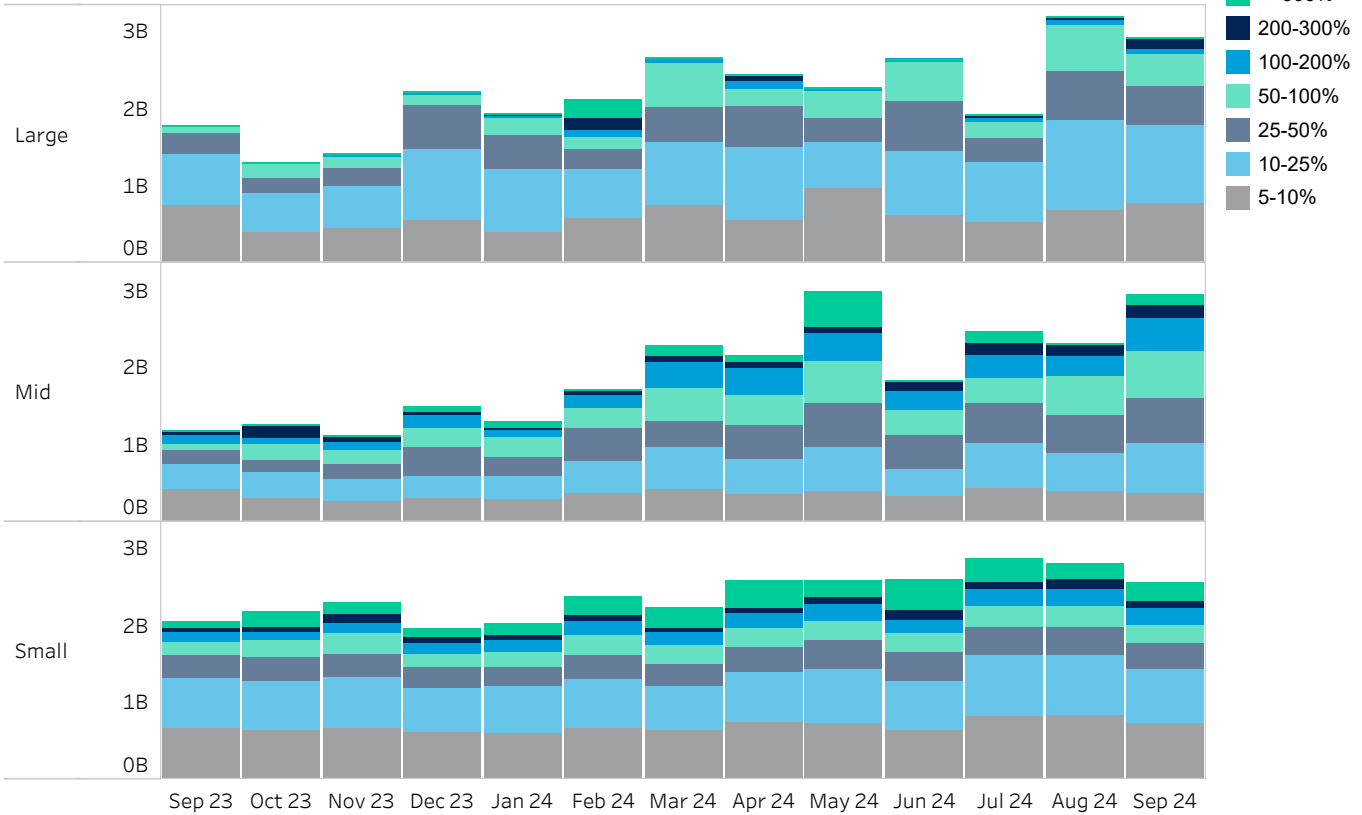
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)



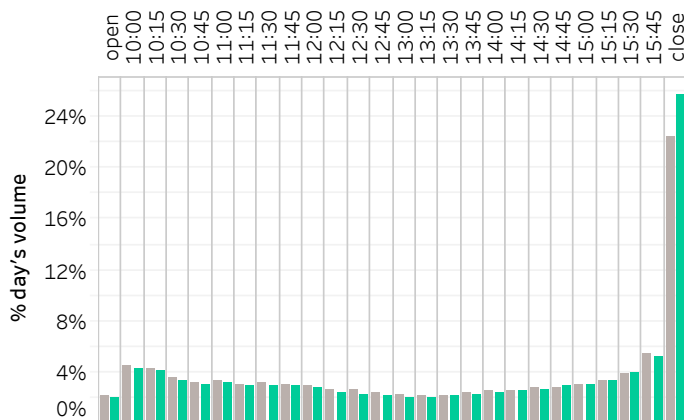
Large Sized Trades (>=5%ADT)



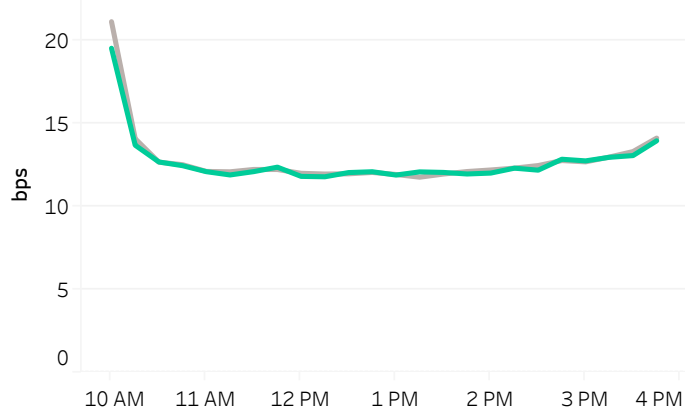
Source data: Virtu Financial

Australia

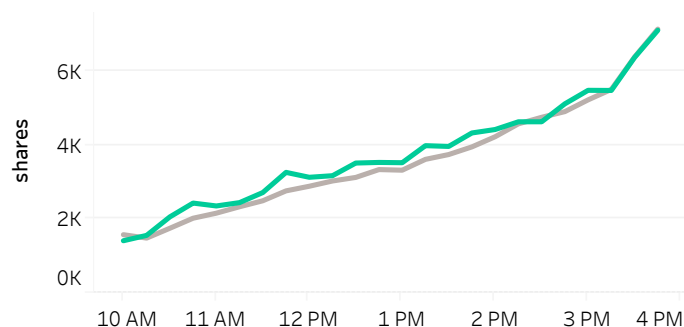
Volume Curve



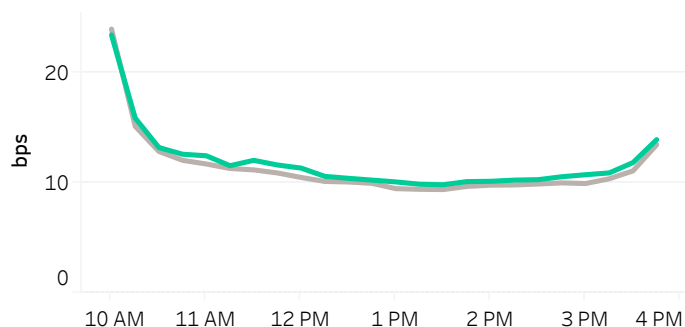
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg September 2024

Spread Bps

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	17.0	18.7	18.1	17.6	16.7	17.7	16.7	16.3	15.6	16.5	15.9	16.6	16.3
MidDay	12.3	13.1	13.1	12.6	12.0	12.5	11.9	11.7	11.9	12.3	11.8	11.7	12.1
LastHalfHo..	14.7	15.4	15.1	14.1	13.7	13.7	13.5	13.1	13.1	13.8	13.8	13.5	13.5

One Minute Volatility Bps

FirstHalfHo..	17.9	19.4	18.7	18.3	16.7	19.2	18.2	18.4	18.0	18.4	17.1	19.7	18.9
MidDay	9.6	10.6	10.8	10.1	9.5	10.5	10.0	9.6	10.1	10.5	10.0	10.6	10.6
LastHalfHo..	12.7	13.5	13.3	12.5	11.7	12.6	12.2	11.7	12.0	12.5	11.8	12.7	12.9

Quotesize (shares)

FirstHalfHo..	1,756	1,601	1,443	1,515	1,528	1,587	1,547	1,545	1,433	1,580	1,482	1,437	1,514
MidDay	3,720	3,289	3,147	3,258	3,388	3,303	3,261	2,984	3,555	3,928	3,774	3,262	3,610
LastHalfHo..	7,388	7,156	6,633	6,873	6,851	6,654	6,518	6,090	6,636	7,213	7,096	6,305	6,671

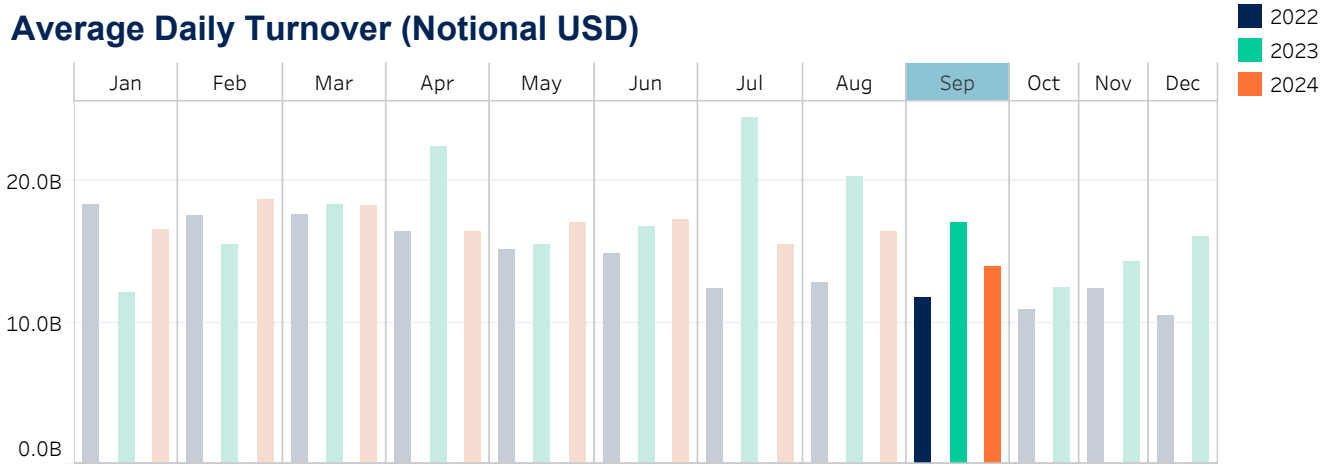
Median used for all metrics

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

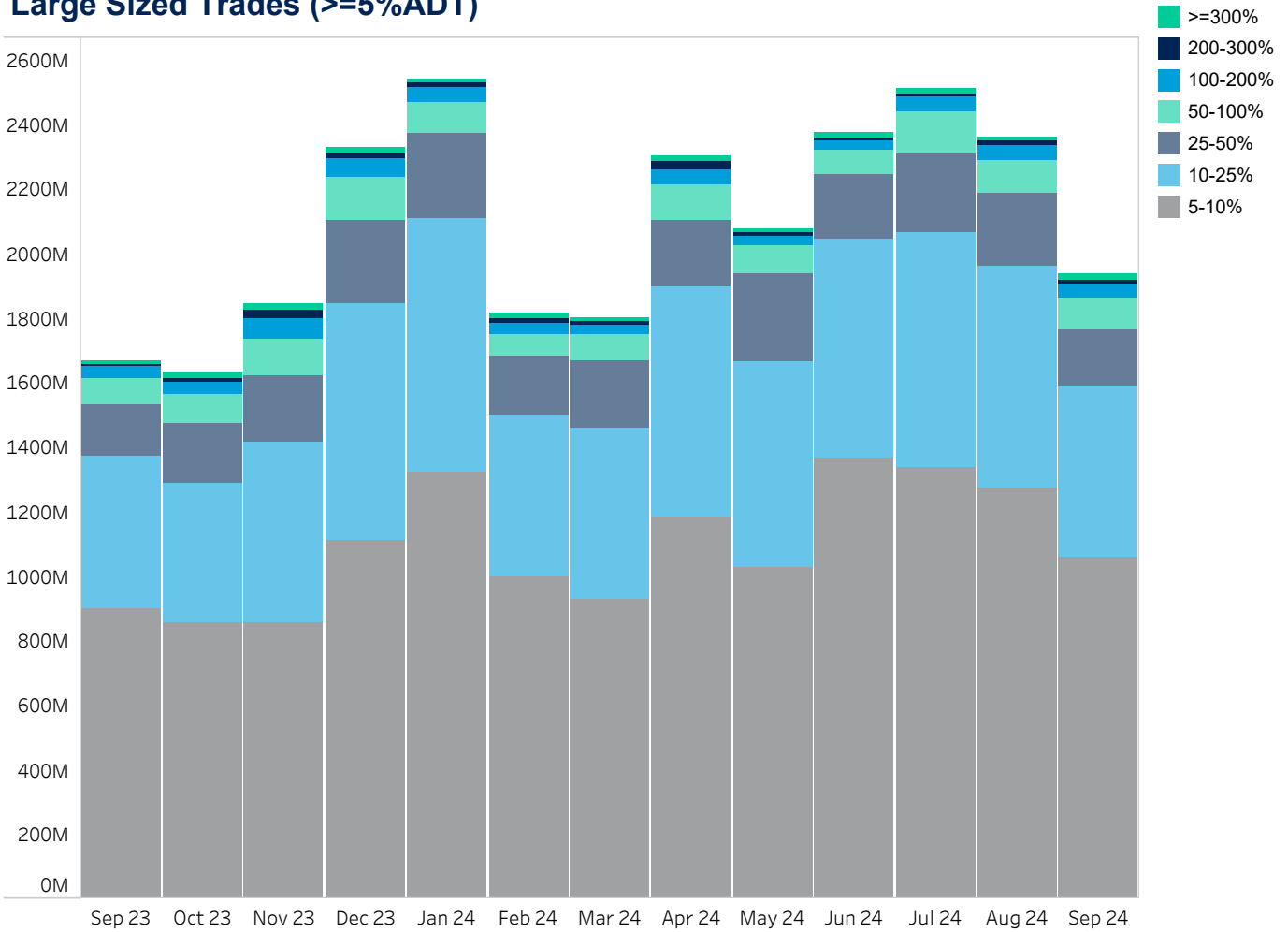
Source data: Virtu Financial

South Korea

Average Daily Turnover (Notional USD)



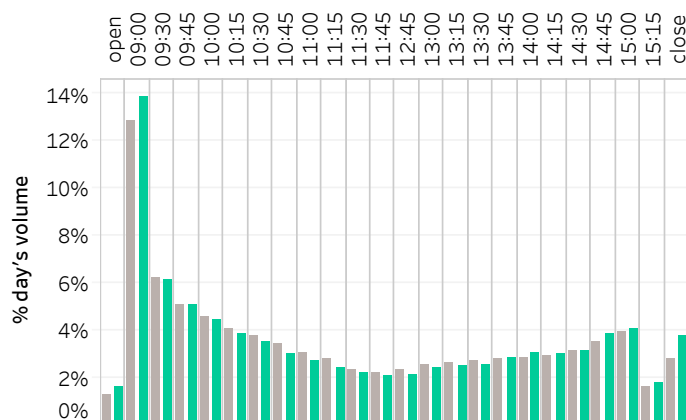
Large Sized Trades (>=5%ADT)



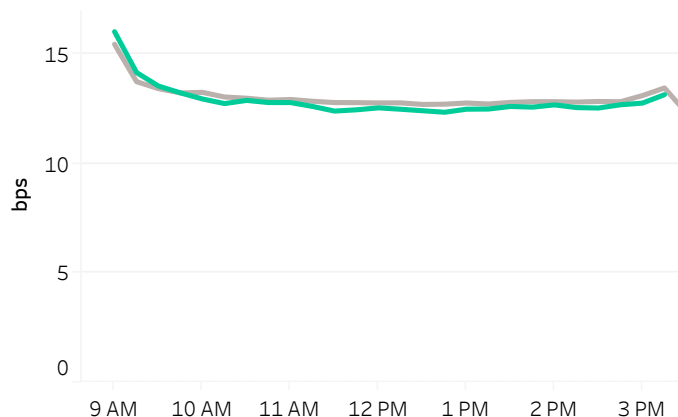
Source data: Virtu Financial

Korea

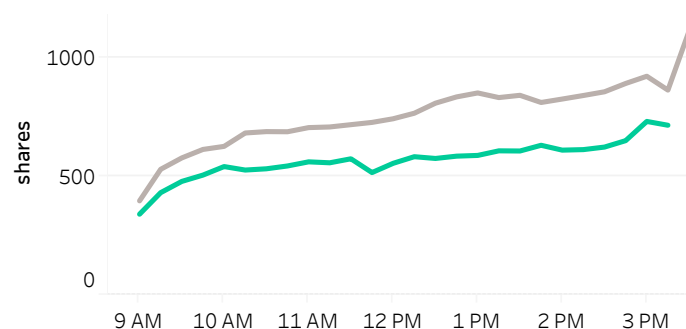
Volume Curve



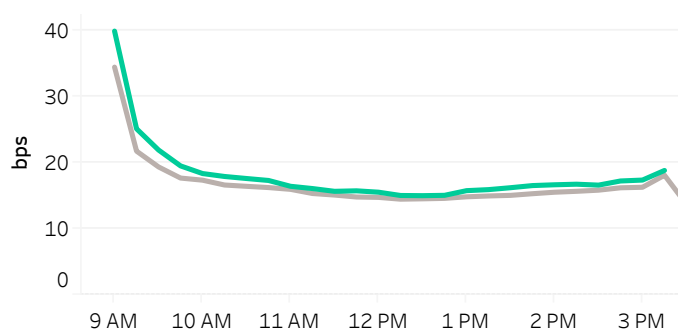
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ September 2024

Spread Bps

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	13.9	14.5	14.5	14.3	15.1	15.6	14.3	14.5	14.0	14.6	14.5	15.4	15.0
MidDay	12.5	12.8	13.1	12.8	13.6	13.6	12.4	12.7	12.7	13.1	12.6	13.1	12.6
LastHalfHo..	12.6	13.2	13.4	13.3	13.8	13.9	12.6	12.8	12.8	13.2	12.7	13.4	12.9

One Minute Volatility Bps

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

Quotesize (shares)

FirstHalfHo..	491.0	443.8	457.6	535.9	445.6	465.2	451.8	457.9	501.0	506.3	437.7	415.4	386.3
MidDay	922.8	808.1	760.3	895.4	806.7	749.1	773.4	713.4	826.0	731.0	690.2	606.3	589.5
LastHalfHo..	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	719.0

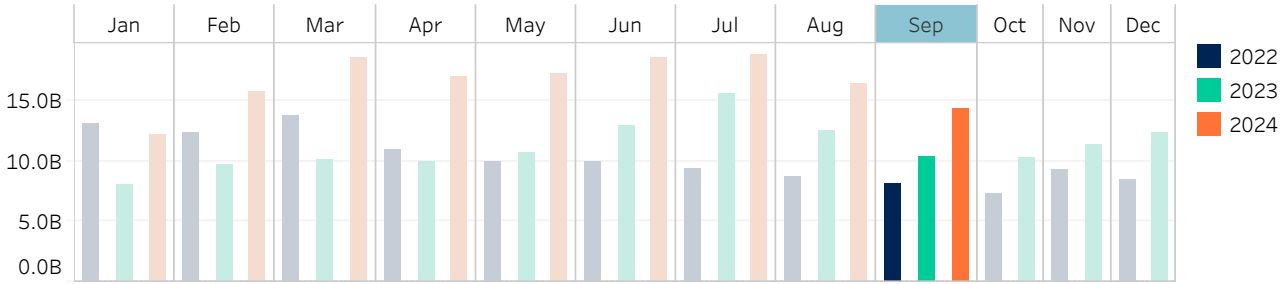
Median used for all metrics

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

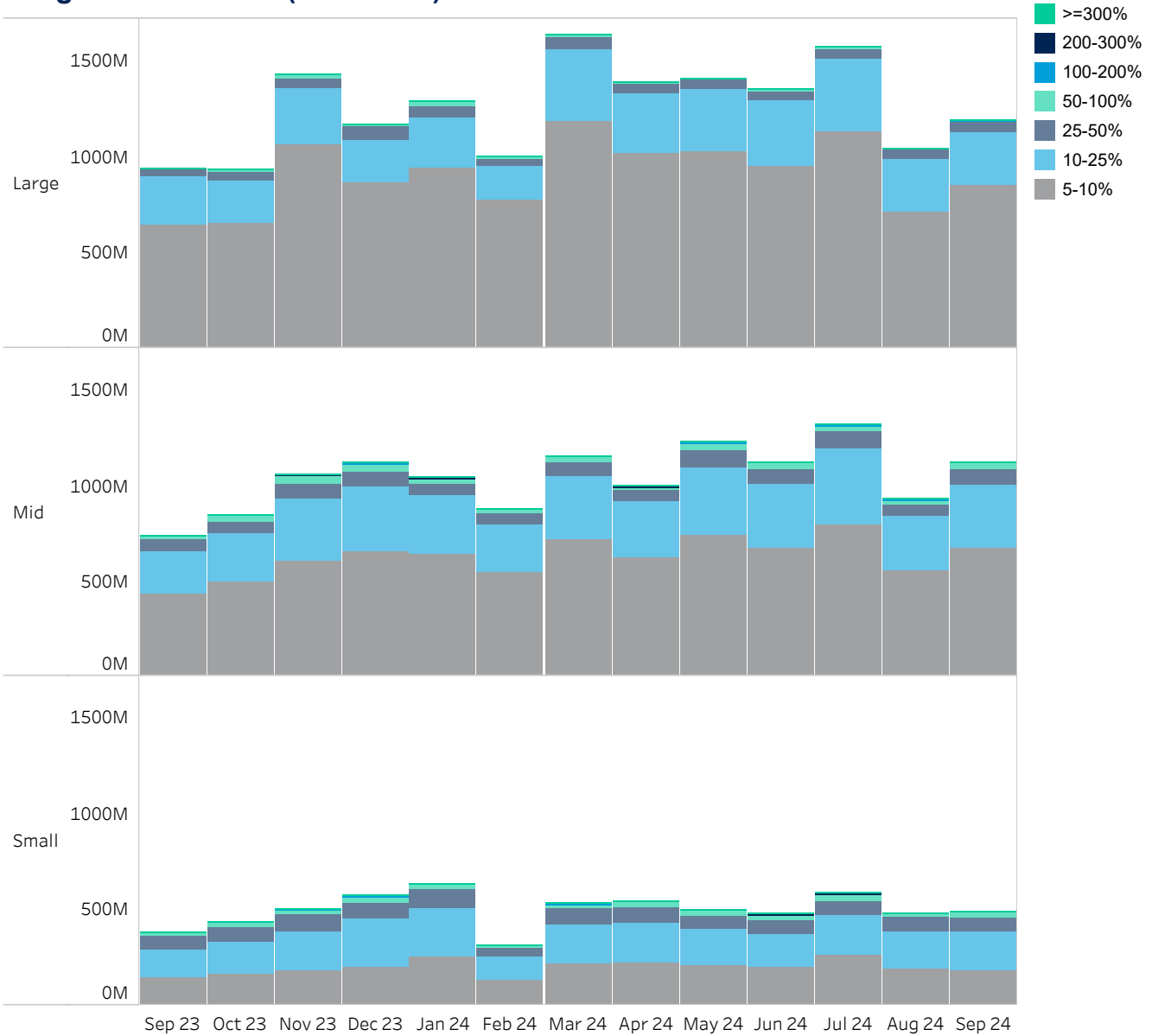
Source data: Virtu Financial

Taiwan

Average Daily Turnover (Notional USD)



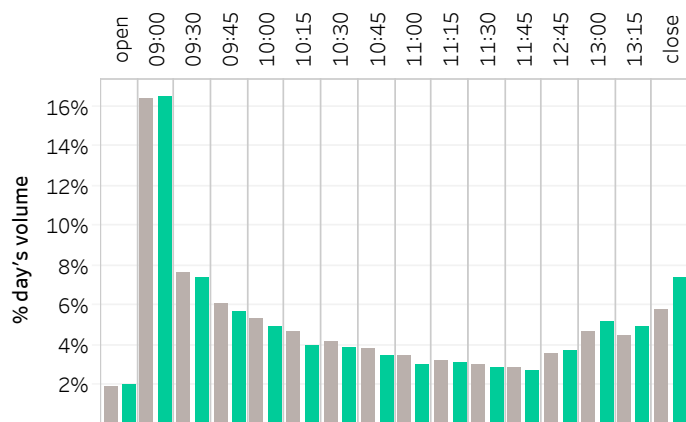
Large Sized Trades (>=5%ADT)



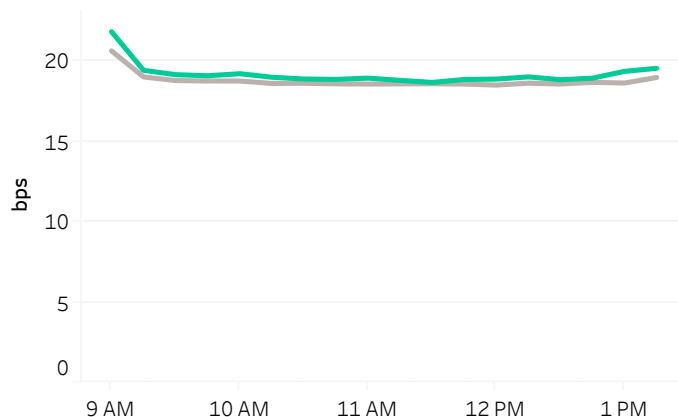
Source data: Virtu Financial

Taiwan

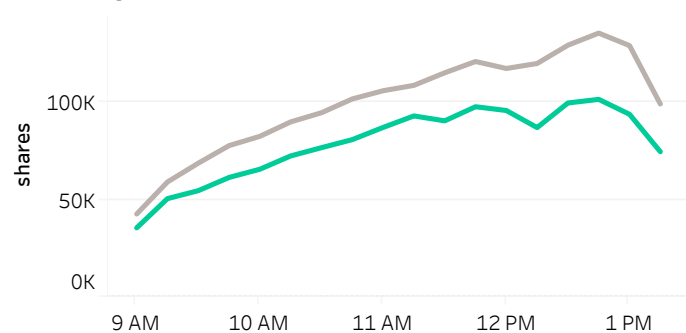
Volume Curve



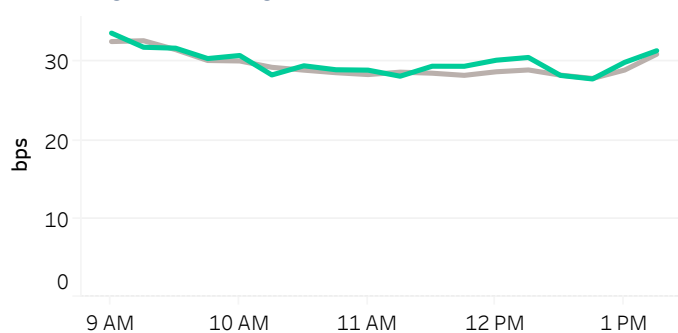
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg (brown line) September 2024 (green line)

Spread Bps

	2023							2024					
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	19.9	20.3	19.6	19.5	19.6	19.5	19.5	19.8	19.6	19.9	20.2	21.2	20.3
MidDay	18.8	19.0	18.2	18.6	18.6	18.3	18.3	18.4	18.8	19.1	18.9	19.2	18.9
LastHalfHo..	19.0	19.1	18.6	18.7	18.8	18.3	18.6	18.6	18.9	19.2	19.1	19.2	19.4

One Minute Volatility Bps

FirstHalfHo..	32.6	33.3	29.9	30.6	32.8	31.3	32.7	32.9	34.8	34.3	35.0	37.1	33.3
MidDay	29.8	31.1	26.4	27.8	29.2	28.6	28.9	28.7	28.6	28.6	31.0	31.2	29.7
LastHalfHo..	29.9	31.5	27.6	28.1	30.3	28.7	30.4	29.5	30.3	29.5	31.4	32.2	31.6

Quotesize (shares)

FirstHalfHo..	44,984	46,915	50,161	52,263	57,046	48,244	57,635	48,604	56,638	56,775	50,128	40,566	42,528
MidDay	103,352	109,280	111,917	104,185	124,365	117,027	110,699	96,467	113,228	104,741	88,207	77,955	89,523
LastHalfHo..	105,527	109,997	124,934	124,186	118,507	116,047	117,591	108,108	123,357	120,731	100,832	83,161	82,862

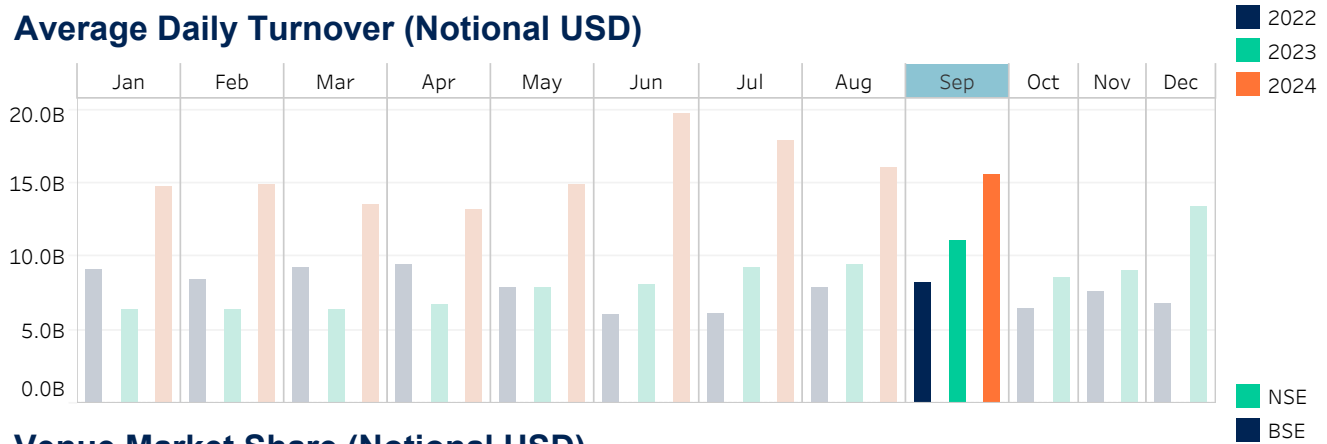
Median used for all metrics

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

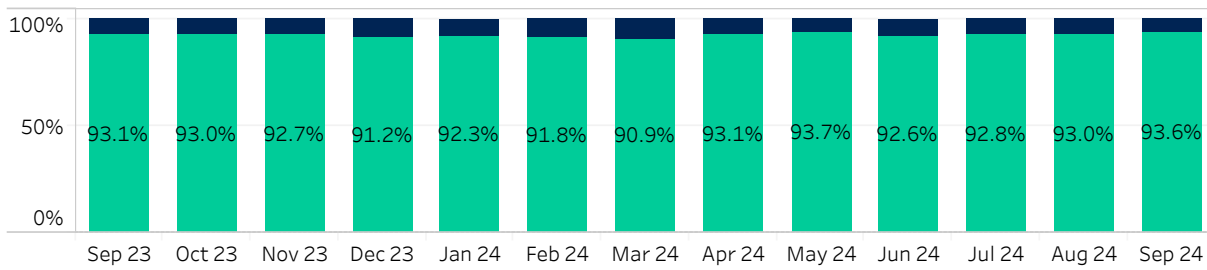
Source data: Virtu Financial

India

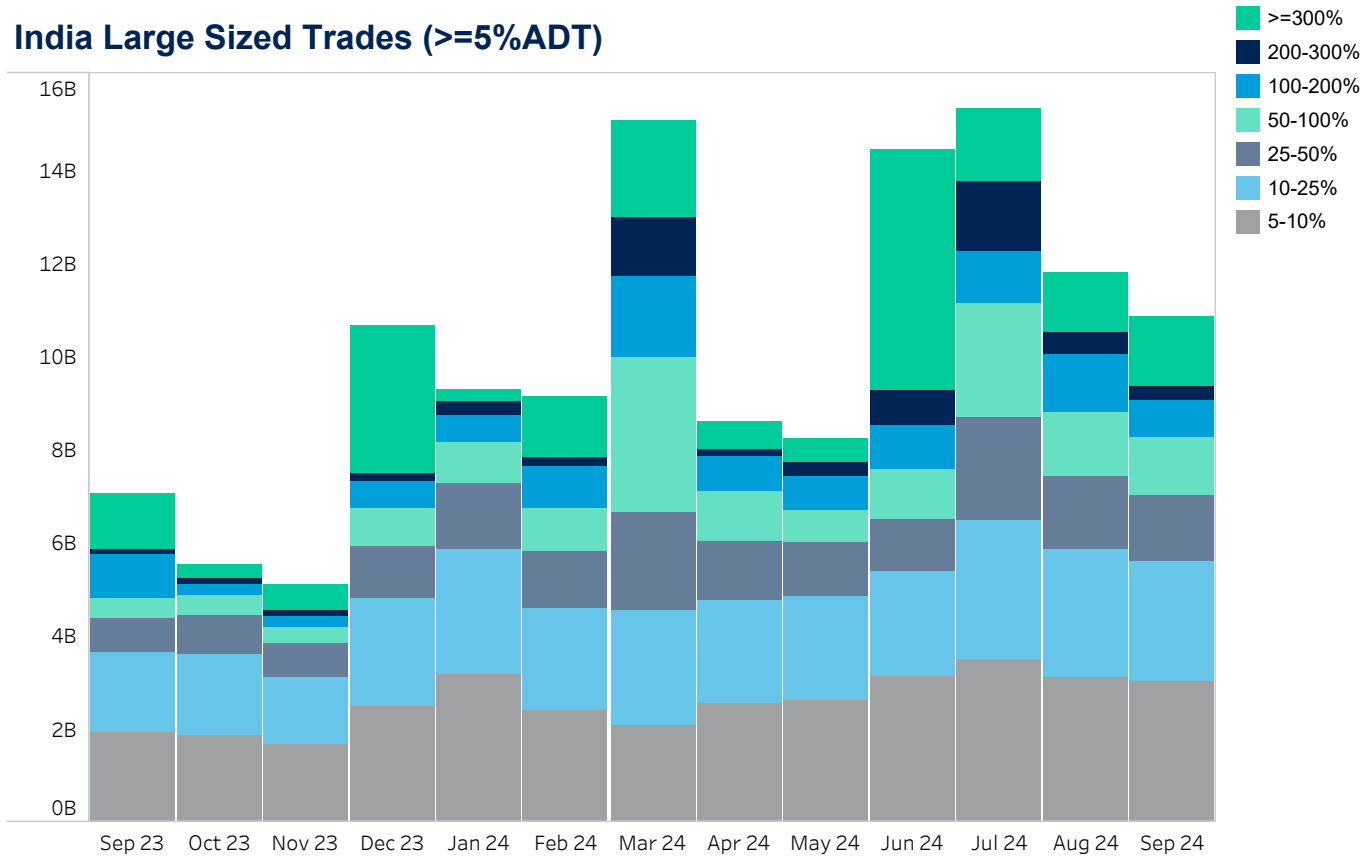
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)



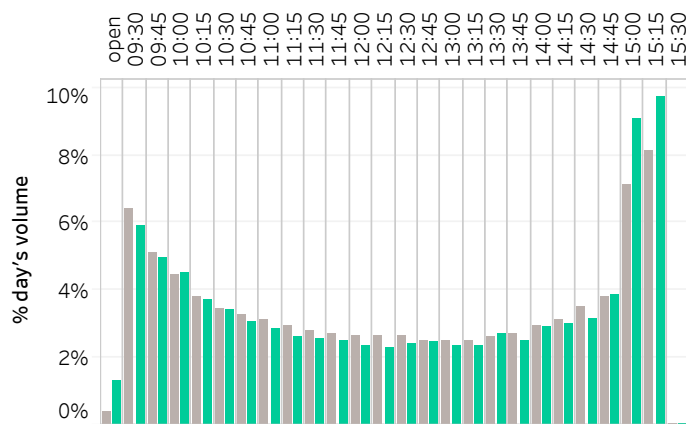
India Large Sized Trades (>=5%ADT)



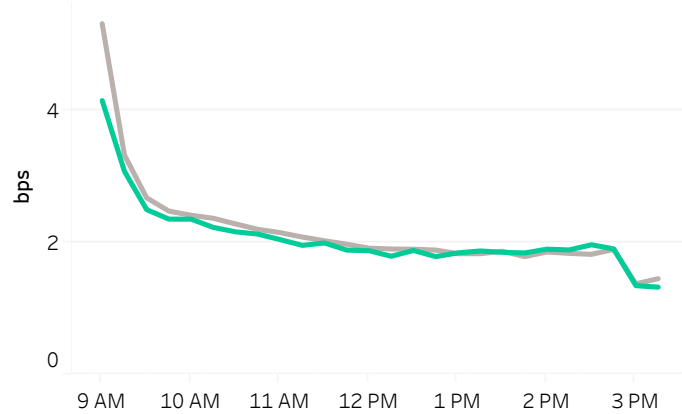
Source data: Virtu Financial

India

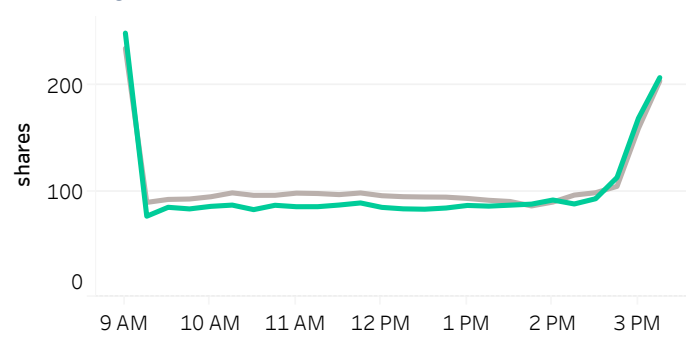
Volume Curve



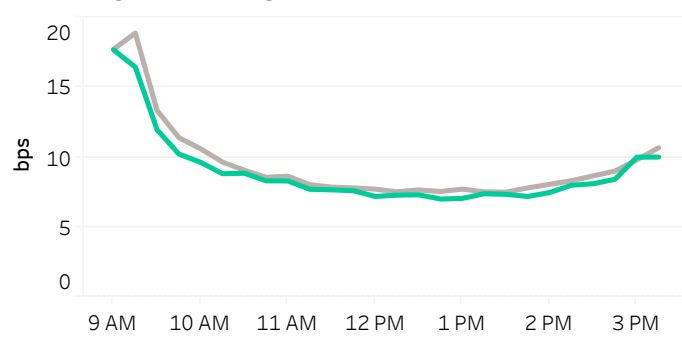
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ September 2024

Spread Bps

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	3.5	3.4	3.2	3.4	3.5	3.5	3.3	3.4	3.5	3.5	3.2	3.3	3.1
MidDay	2.0	1.8	2.0	1.9	1.9	2.0	1.9	2.0	2.1	2.0	2.0	2.0	1.9
LastHalfHo..	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.7	1.6	1.4	1.5	1.4

One Minute Volatility Bps

FirstHalfHo..	16.3	17.3	14.7	17.9	19.6	19.6	19.5	19.6	20.1	22.5	19.1	17.4	16.7
MidDay	7.6	7.6	7.1	8.0	8.7	9.1	8.9	8.4	8.9	9.4	8.5	8.0	7.9
LastHalfHo..	9.6	9.5	8.7	10.5	10.8	11.2	12.1	10.6	11.6	11.6	10.3	10.3	10.5

Quotesize (shares)

FirstHalfHo..	117.2	112.5	108.1	118.4	102.2	90.9	91.8	88.1	85.8	92.9	89.2	78.4	82.3
MidDay	120.7	108.5	116.7	118.3	99.1	90.4	91.0	94.1	90.6	93.3	85.5	80.5	86.0
LastHalfHo..	230.8	197.4	229.1	196.5	182.0	169.3	188.1	191.5	147.4	174.9	158.2	157.2	189.6

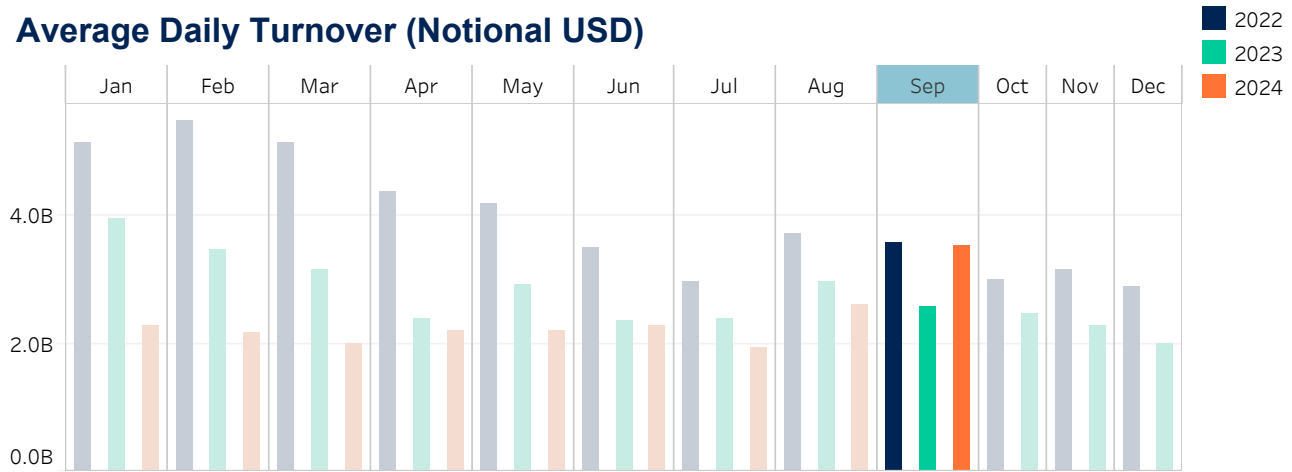
Median used for all metrics

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

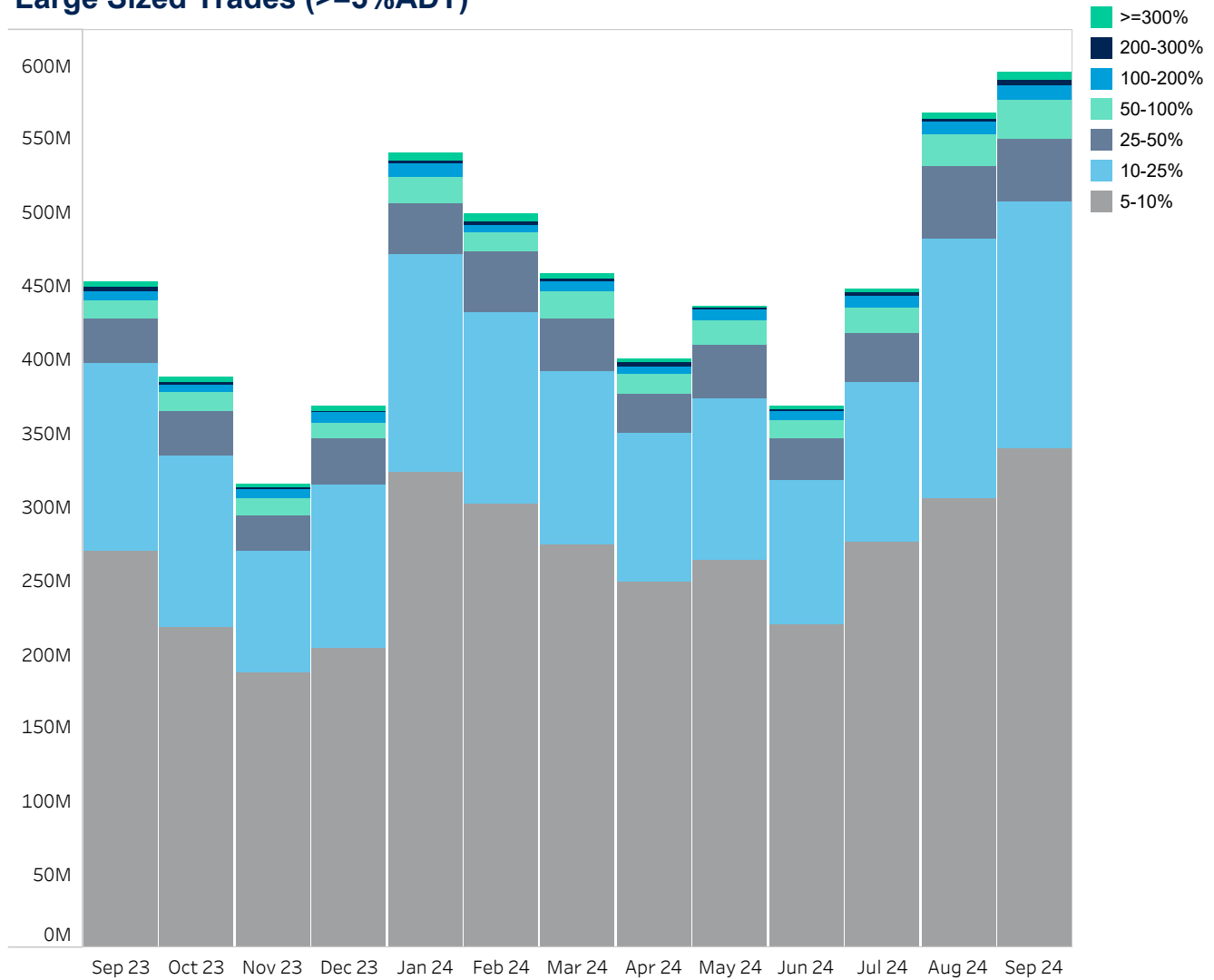
Source data: Virtu Financial

Thailand

Average Daily Turnover (Notional USD)



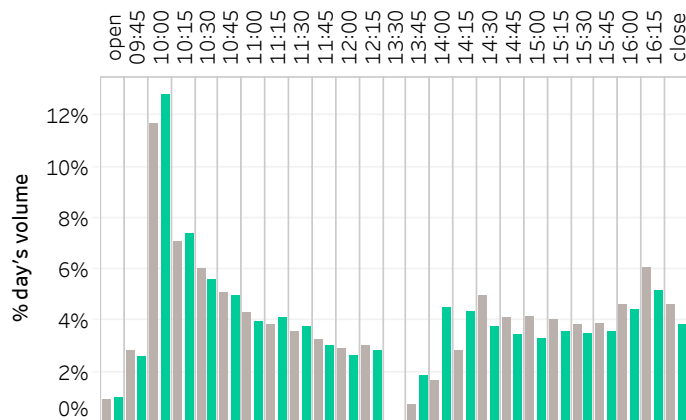
Large Sized Trades (>=5%ADT)



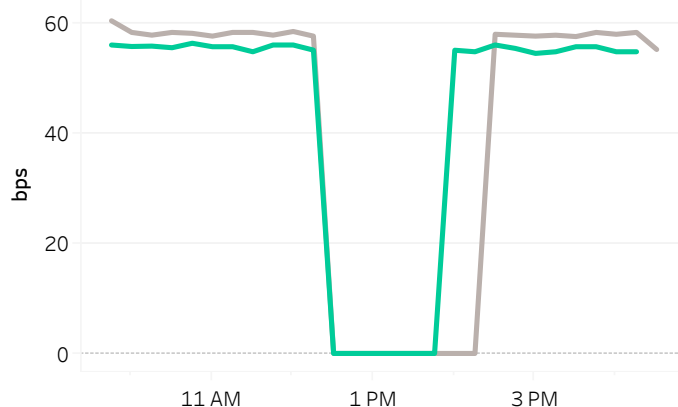
Source data: Virtu Financial

Thailand

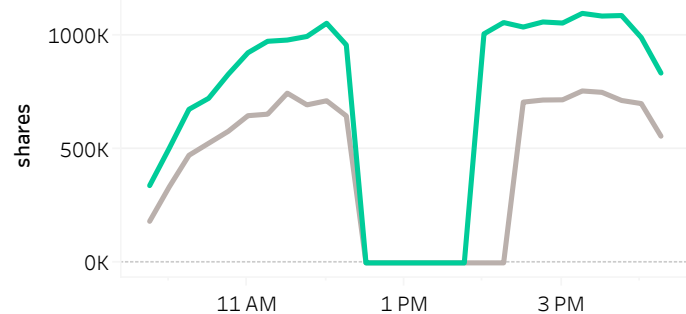
Volume Curve



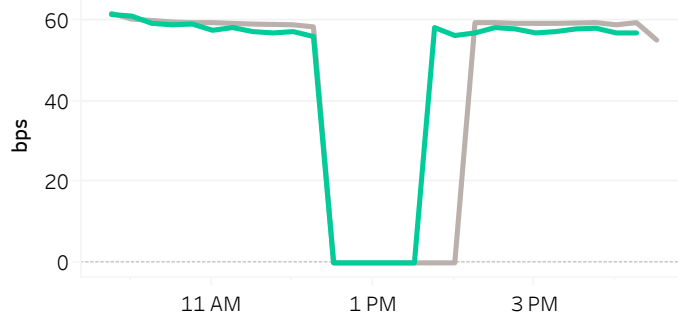
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ September 2024

Spread Bps

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	61.9	64.3	62.7	64.0	61.2	60.1	58.8	60.0	58.7	58.6	57.6	58.9	55.1
MidDay	58.7	59.3	58.3	59.2	57.6	57.0	56.2	58.0	57.6	57.3	56.7	58.3	55.7
LastHalfHo..	59.0	59.3	59.0	51.4	58.3	57.3	56.3	58.0	58.0	57.6	57.0	58.6	55.4

One Minute Volatility Bps

FirstHalfHo..	61.2	64.3	63.5	63.8	61.2	62.3	60.4	60.8	61.5	61.5	61.5	64.3	61.5
MidDay	60.1	60.4	60.4	60.4	59.3	58.1	57.6	58.8	58.8	58.1	57.8	60.1	58.0
LastHalfHo..	59.0	60.8	60.4	51.4	59.3	58.1	57.6	59.0	59.0	58.3	58.0	60.1	57.3

Quotesize (shares)

FirstHalfHo..	202,658	146,123	160,913	162,686	190,460	187,498	201,086	203,810	251,426	207,077	251,215	231,332	343,448
MidDay	749,767	485,941	528,048	602,762	686,060	674,355	709,700	770,373	786,167	647,182	795,456	834,632	993,639
LastHalfHo..	626,196	465,624	501,806	371,650	597,307	602,884	611,971	624,177	686,745	575,749	734,601	699,140	886,415

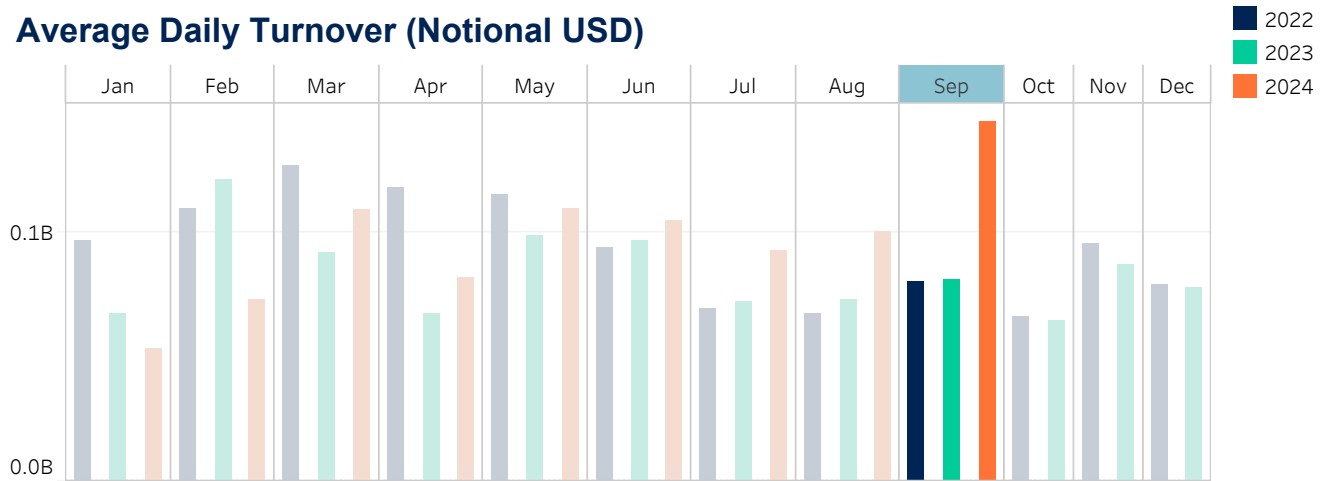
Median used for all metrics

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

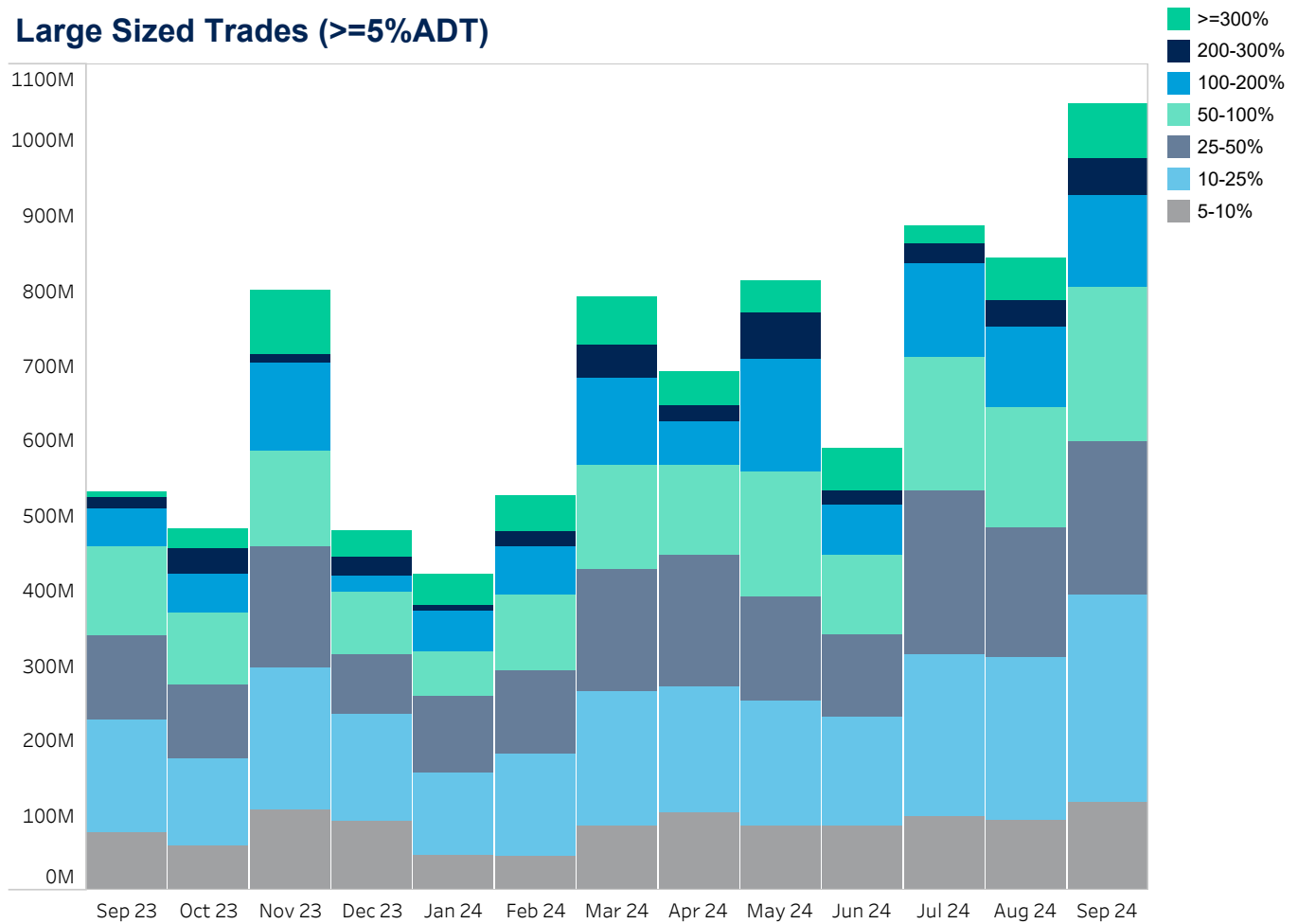
Source data: Virtu Financial

New Zealand

Average Daily Turnover (Notional USD)



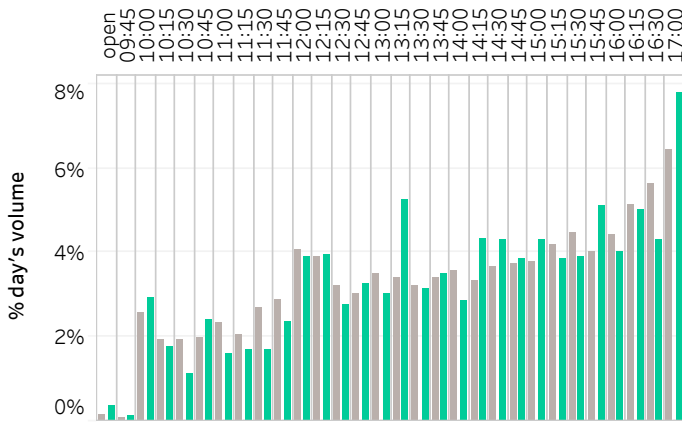
Large Sized Trades (>=5%ADT)



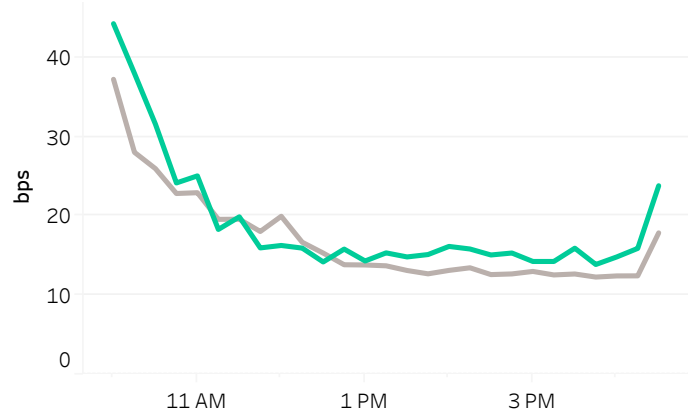
Source data: Virtu Financial

New Zealand

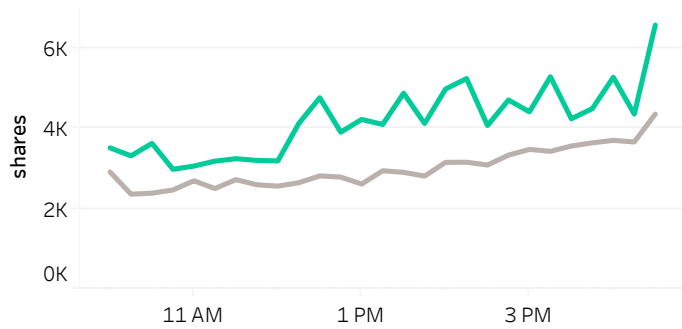
Volume Curve



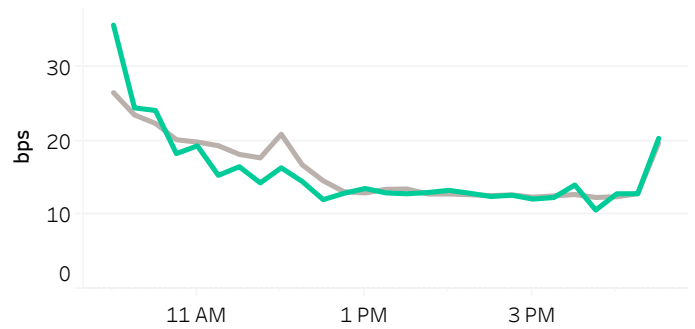
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ September 2024

Spread Bps

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	30.3	28.2	28.9	35.4	37.0	35.1	31.2	34.3	26.1	30.5	26.2	32.3	39.9
MidDay	12.4	14.7	14.3	16.7	17.1	19.6	12.7	12.5	11.6	12.5	13.0	15.2	15.3
LastHalfHo..	16.3	19.7	18.1	18.6	22.2	22.5	17.1	15.6	13.0	15.8	15.9	22.0	23.6

One Minute Volatility Bps

FirstHalfHo..	20.9	23.1	19.9	19.4	29.1	28.3	23.8	26.1	24.6	26.5	24.0	24.5	29.7
MidDay	12.5	15.0	14.6	16.4	17.2	19.2	12.3	12.1	11.7	13.0	13.1	14.3	13.1
LastHalfHo..	19.4	20.8	19.6	19.3	22.5	23.4	20.4	17.3	15.6	21.4	21.4	22.8	21.1

Quotesize (shares)

FirstHalfHo..	2,681	3,043	2,397	2,093	2,584	3,199	2,413	2,650	2,904	2,527	2,215	2,957	3,170
MidDay	3,098	3,456	2,624	2,939	2,784	3,414	2,746	2,757	2,885	2,903	2,753	3,312	4,535
LastHalfHo..	3,988	4,171	4,335	4,150	4,284	4,516	4,518	3,911	4,530	4,644	4,072	5,195	6,090

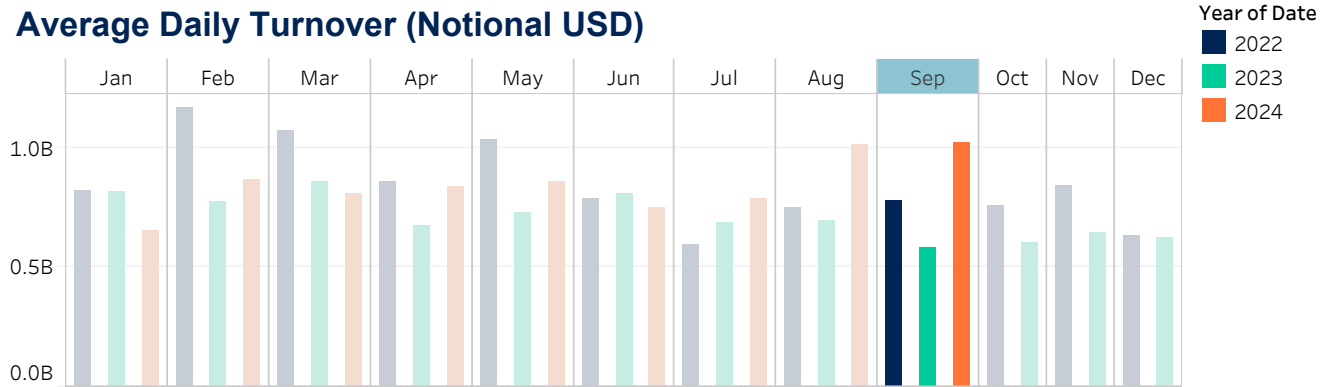
Median used for all metrics

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

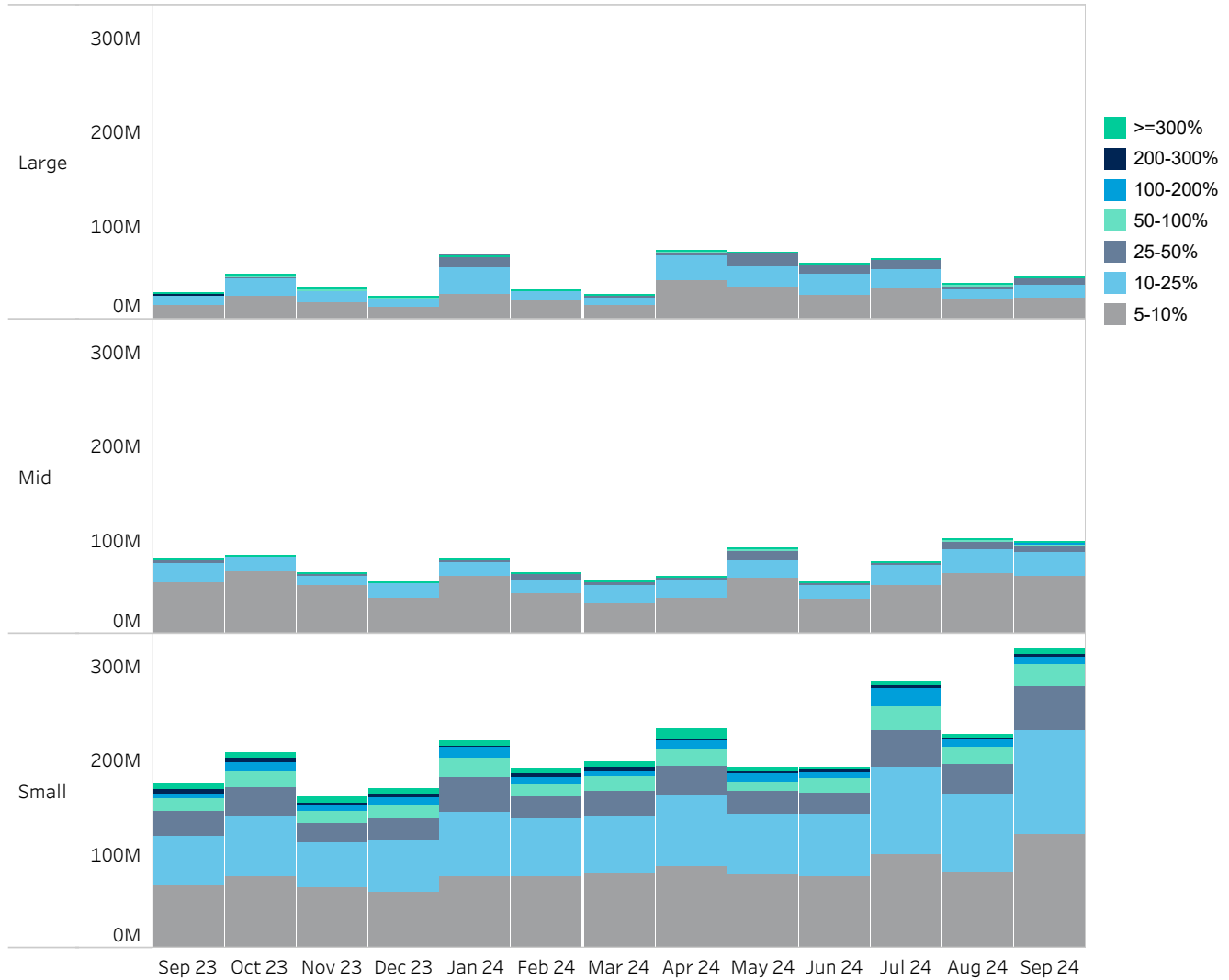
Source data: Virtu Financial

Singapore

Average Daily Turnover (Notional USD)



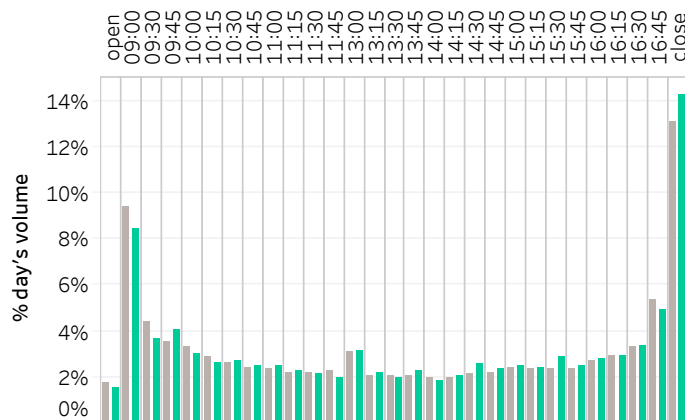
Large Sized Trades (>=5%ADT)



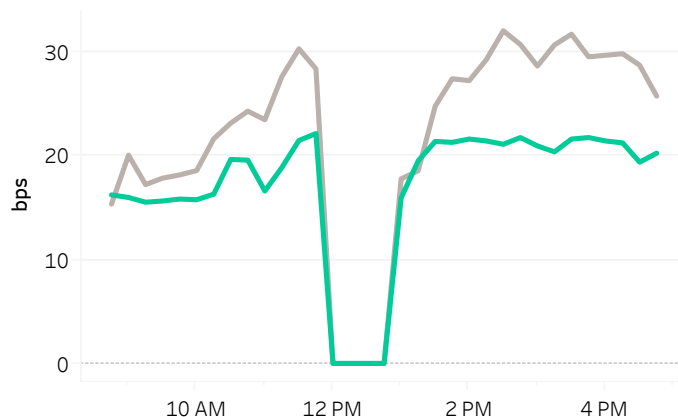
Source data: Virtu Financial

Singapore

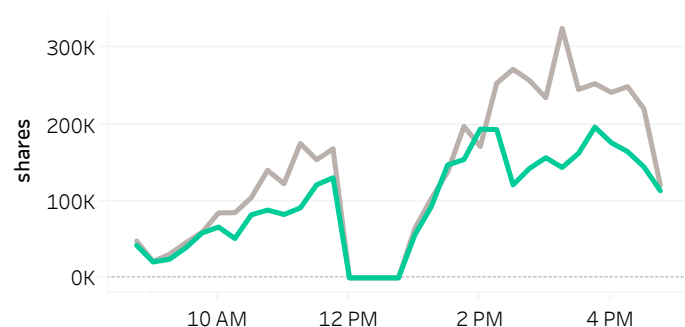
Volume Curve



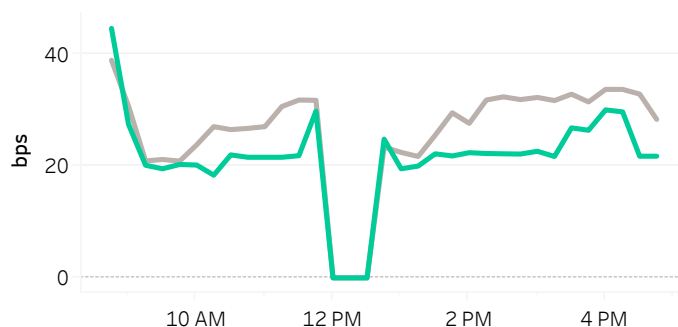
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ September 2024

Spread Bps

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FirstHalfHo..	16.2	15.8	16.8	15.1	15.0	15.0	18.7	15.6	14.5	14.8	14.4	16.9	16.1
MidDay	26.7	28.5	26.5	28.9	26.8	18.1	30.0	36.7	19.2	24.7	22.8	21.3	20.5
LastHalfHo..	26.9	29.5	27.1	28.0	29.7	26.4	29.4	28.6	24.4	24.7	23.5	22.5	20.5

One Minute Volatility Bps

FirstHalfHo..	31.3	50.6	52.8	40.9	41.6	42.5	39.9	52.1	37.7	39.0	33.8	44.9	46.2
MidDay	27.0	31.3	27.3	29.1	28.8	26.3	34.2	36.9	24.3	24.8	27.0	22.4	22.2
LastHalfHo..	27.4	32.6	27.9	29.4	32.6	30.4	30.1	34.1	29.7	30.0	31.8	31.5	21.8

Quotesize (shares)

FirstHalfHo..	36,050	50,518	72,786	53,345	55,164	68,837	35,573	61,123	43,399	46,845	37,261	30,750	42,101
MidDay	176,852	239,708	89,777	193,459	181,018	116,322	187,792	374,365	110,102	148,668	152,415	103,521	128,939
LastHalfHo..	179,377	226,408	119,166	139,335	199,052	164,279	161,581	161,143	143,389	182,647	158,047	135,215	125,318

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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