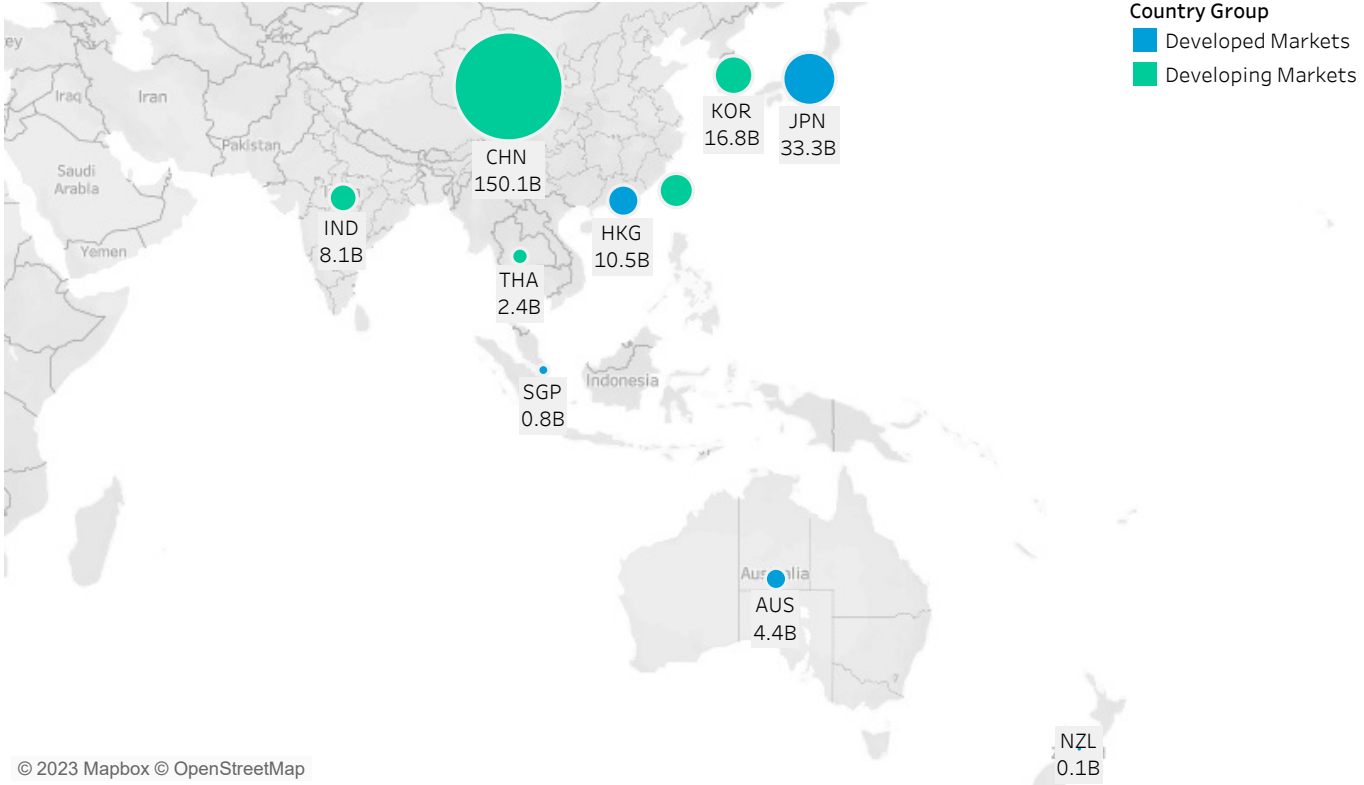


June 2023 APAC Market Structure Monthly

Average Daily Turnover (Notional USD)



Country Breakdowns

Hong Kong

China

Japan

Australia

South Korea

Taiwan

India

Thailand

New Zealand

Singapore

Jun 2023

AP Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- Japan, Taiwan, and India recorded YTD highs in average daily turnover (ADT) in June 2023, with daily turnover of US\$33.3B, US\$12.8B and US\$8.1B respectively.
- Hong Kong recorded a YTD low in ADT with US\$10.5B ADT in June 2023. Hong Kong's closing auction volume, as a percentage of the full day's volume, was 8.5% in June 2023, up 1% MoM.
- Block trades in India saw a significant turnover increase in June 2023, compared to the prior month. Namely, turnover in 200-300%MDV trades saw ~5X increase from US\$318M in May 2023 to US\$1.1B in June 2023, whereas >300%MDV increased from US\$650M in May 2023 to US\$1.2B in June 2023.

AP MARKET STRUCTURE NEWS

[Hong Kong Exchange and Clearing Limited Launched HKD-RMB Dual Counter Model and Dual Counter Market Making Programme](#)

On 19 June 2023, Hong Kong Exchange and Clearing Limited (HKEX) announced the launch of Hong Kong Dollar (HKD)-Renminbi (RMB) Dual Counter Model (Model) and the Dual Counter Market Making Program in its securities market. According to HKEX, designated shares listed in both HKD and RMB counters can be traded and settled in RMB or HKD under the new model. Dual Counter Market Makers for eligible shares offer continuous buy and sell quotes for securities in the RMB counter, providing liquidity for HKD-RMB Dual Counter securities trading. A total of 24 Hong Kong-listed companies, which account for 40% of the average daily turnover of the cash equities market, will trade and transact as Dual Counter securities at launch, offering both HKD and RMB counters.

[Hong Kong Regulator is Looking to Enhance China Stock Connect Link](#)

On 27 June 2023, Julia Leung, CEO of Hong Kong Securities and Futures Commission (SFC), said the regulator is researching block trading and other trading practices to improve the Stock Connect link to mainland Chinese markets. According to the source, this message was delivered via a speech at an ASIFMA (Asia Securities Industry & Financial Markets Association) event. Ms. Leung also mentioned that SFC is striving to reinforce Stock Connect as a key long-term strategy.

[HKEX to Launch New IPO Settlement Platform \(FINI\) and Shorten IPO settlement period from T+5 to T+2 in October 2023](#)

On 28 June 2023, the Hong Kong Stock Exchange (HKEX) announced that FINI, its new IPO settlement system, will launch in October 2023, reducing Hong Kong's IPO settlement period from T+5 to T+2. HKEX

will arrange the final preparations for rollout in July and August, during which FINI users are encouraged to participate in upcoming market practice sessions and rehearsals.

[Japan Exchange Group Announced the Listing Rules for Actively Managed Exchange Traded Funds](#)

On 29 June 2023, Japan Exchange Group (JPX) published the new listing rules for actively managed exchange traded funds (ETFs) on the Tokyo Stock Exchange (TSE). TSE will take applications for initial listings of actively managed ETFs from 30 June 2023, which is the effective date of the listing rules.

[Securities and Exchange Board of India Proposes Standardizing Trading Preferences of Exchanges](#)

On 21 June 2023, India's regulator proposed standardizing the trading preferences of clients for the same product on different exchanges. Currently, broker's clients "need to give separate authorization letters in case they want to trade on different stock exchanges for a particular segment"; while according to the proposal, brokers would by default offer clients access to all the active stock exchanges that they access and let clients "opt out" if preferred.

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

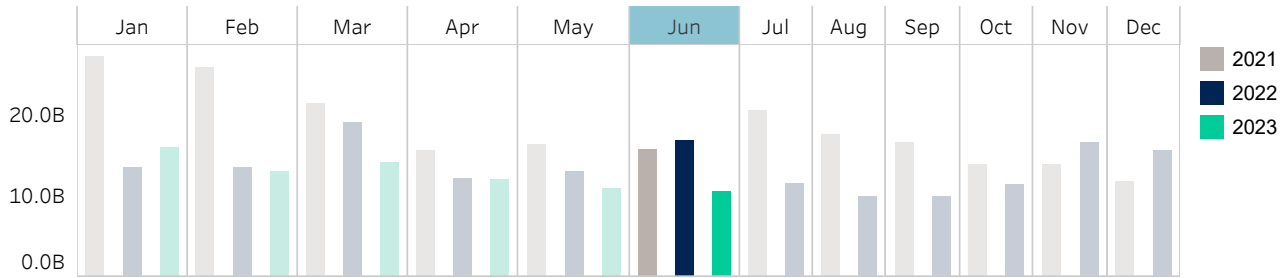
APAC +852.2846.3592 | **CAN** +1.416.874.0800 | **EMEA** +44.20.7670.4066 | **US** +1.646.682.6199
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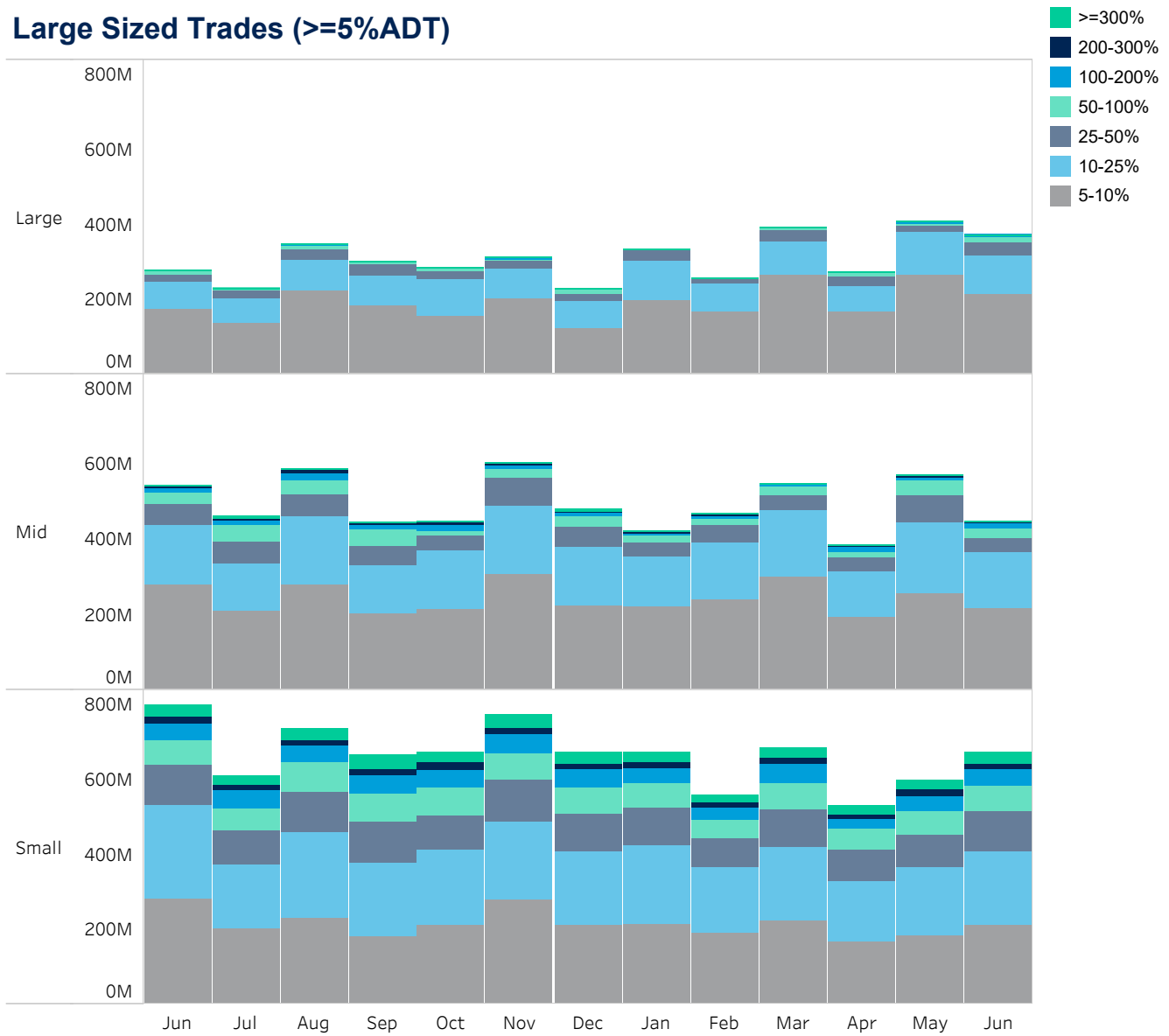
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Hong Kong

Average Daily Turnover (Notional USD)



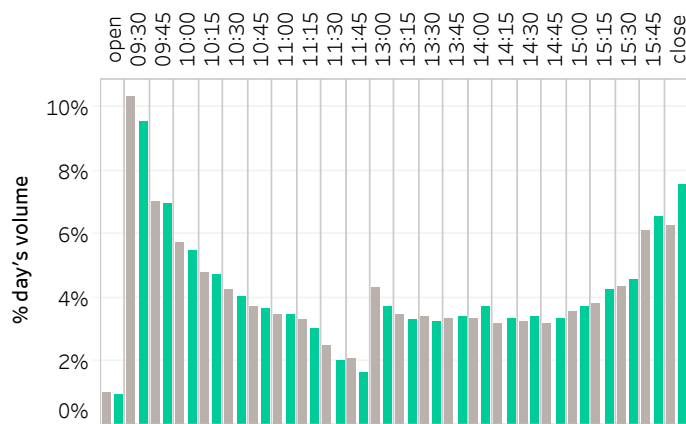
Large Sized Trades (>=5%ADT)



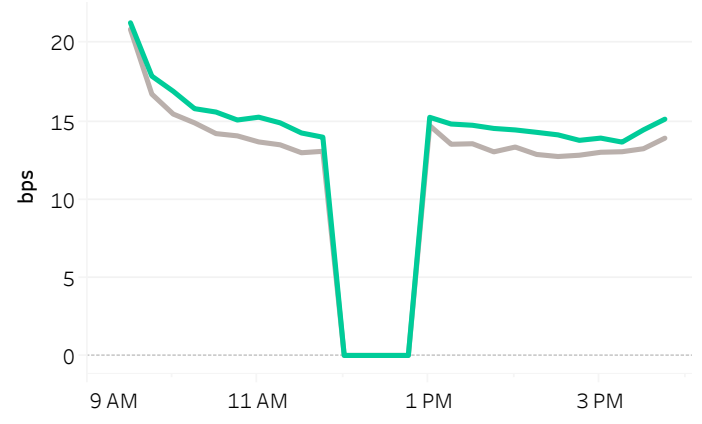
Source data: Virtu Financial

Hong Kong

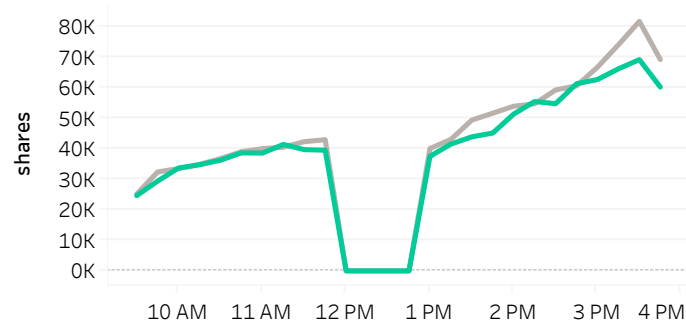
Volume Curve



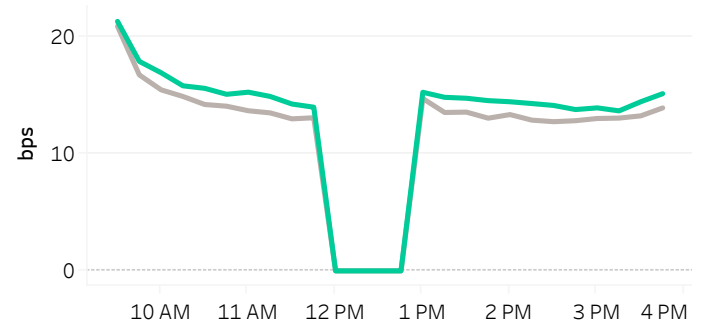
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg (Brown) June 2023 (Teal)

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	19.2	20.4	19.7	18.3	18.0	19.3	19.5	19.5	19.6
MidDay	14.0	14.6	14.0	13.1	12.8	13.7	14.5	14.0	14.6
LastHalfHour	13.7	14.0	14.0	13.0	13.2	14.0	14.1	14.1	14.9

One Minute Volatility Bps

FirstHalfHour	30.5	33.8	29.1	26.4	25.3	28.1	25.8	25.2	24.1
MidDay	18.5	20.1	18.3	17.0	15.9	16.2	16.1	15.7	16.2
LastHalfHour	18.0	19.1	18.6	16.5	16.7	17.3	16.4	16.3	17.2

Quotesize (shares)

FirstHalfHour	27,135	28,857	29,077	29,622	27,296	30,646	31,145	29,974	26,818
MidDay	39,201	38,664	40,980	46,105	44,622	43,572	50,780	47,975	41,143
LastHalfHour	71,053	67,304	66,542	78,406	74,936	77,473	76,329	74,417	64,333

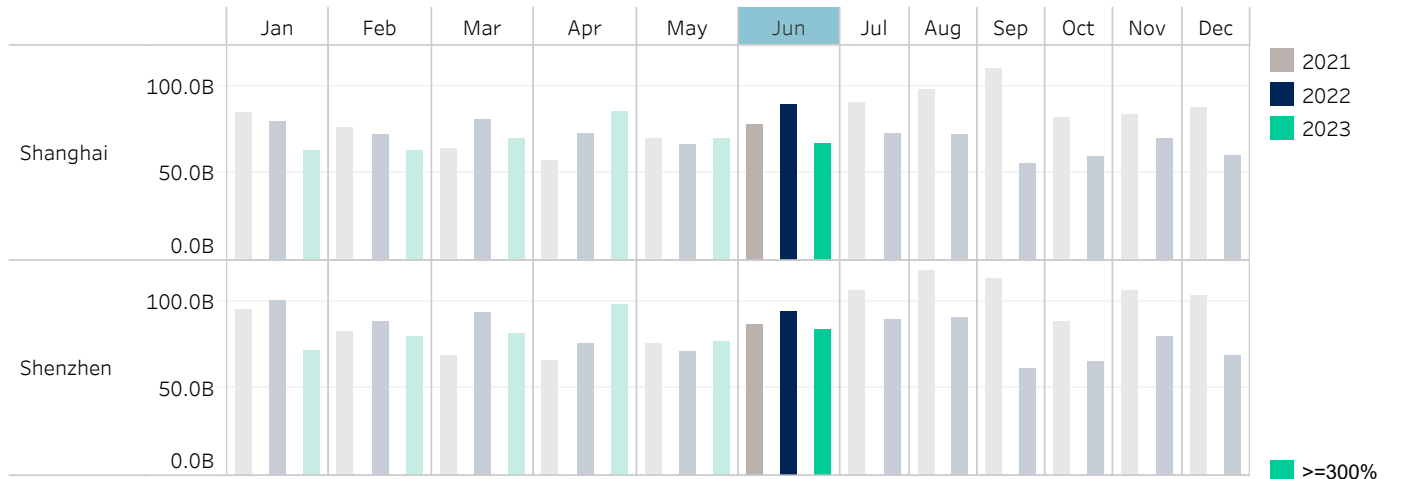
Median used for all metrics

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

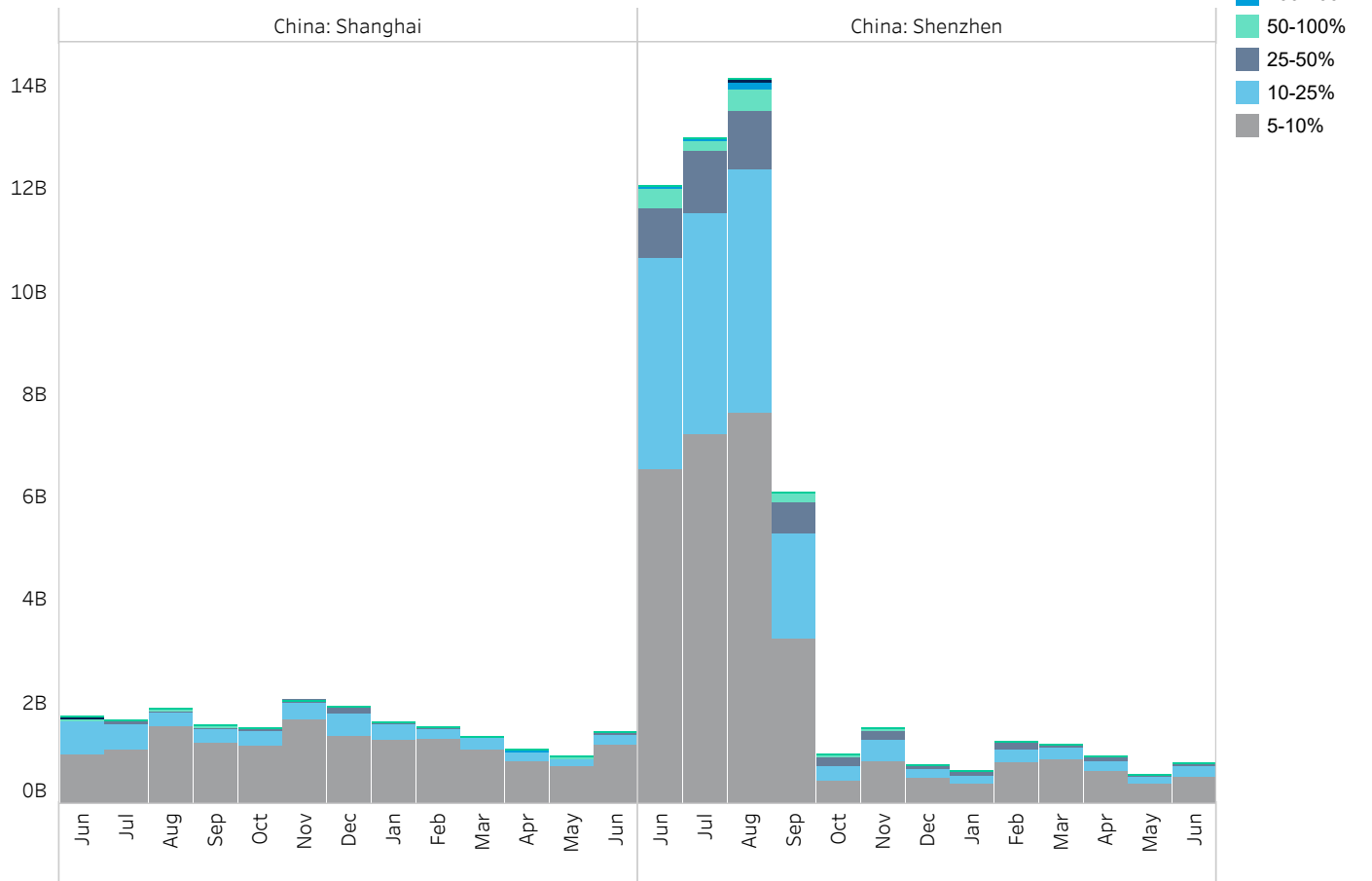
Source data: Virtu Financial

China

Average Daily Turnover (Notional USD)



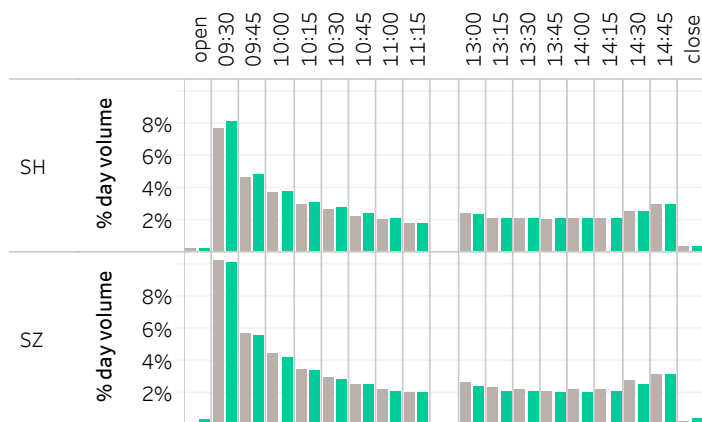
Large Sized Trades (>=5%ADT)



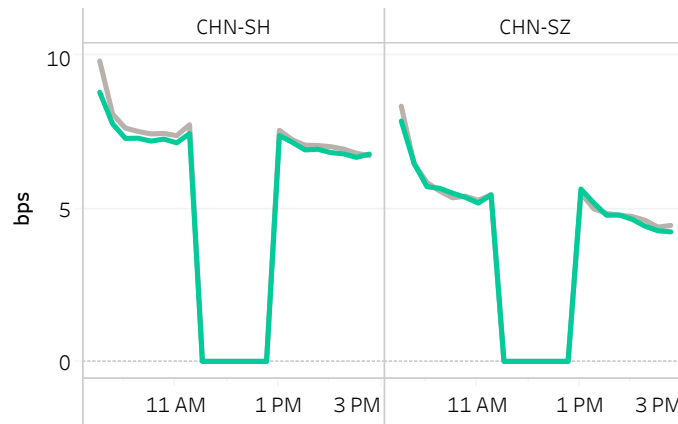
Source data: Virtu Financial

China

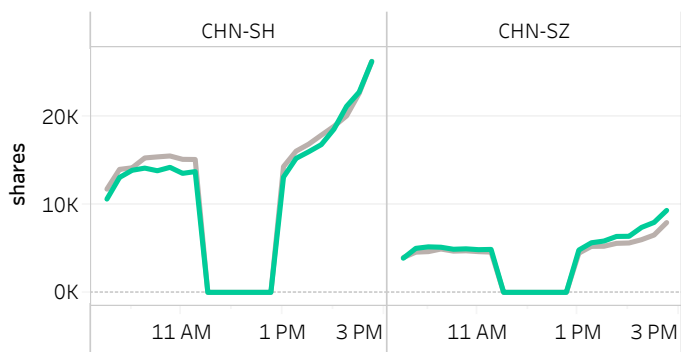
Volume Curve



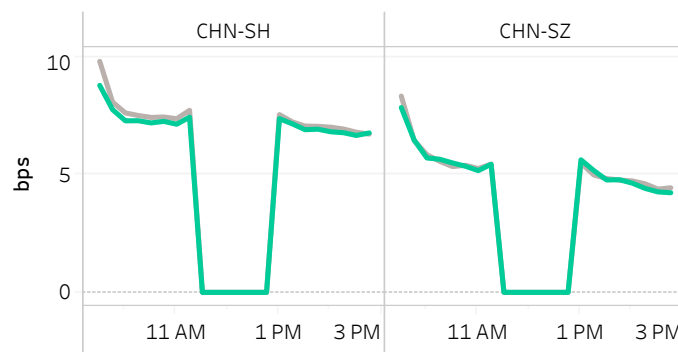
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg June 2023

Spread Bps

	CHN-SH						CHN-SZ					
	Jan	Feb	Mar	Apr	May	Jun	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	8.9	8.1	8.2	8.1	8.2	8.3	7.4	6.6	6.7	7.0	7.0	7.1
MidDay	7.4	7.2	7.2	7.1	7.2	7.3	5.2	4.9	5.2	5.3	5.3	5.5
LastHalfHour	6.7	6.6	6.6	6.5	6.7	6.7	4.4	4.3	4.4	4.3	4.4	4.3

One Minute Volatility Bps

FirstHalfHour	26.9	22.9	26.2	29.2	29.5	27.0	27.9	24.9	25.5	30.3	27.5	28.3
MidDay	15.1	14.3	15.1	15.8	15.5	14.7	14.0	12.2	13.0	14.5	13.2	13.6
LastHalfHour	13.9	13.7	14.0	14.2	14.1	13.8	11.1	11.1	11.1	11.8	11.3	11.3

Quotesize (shares)

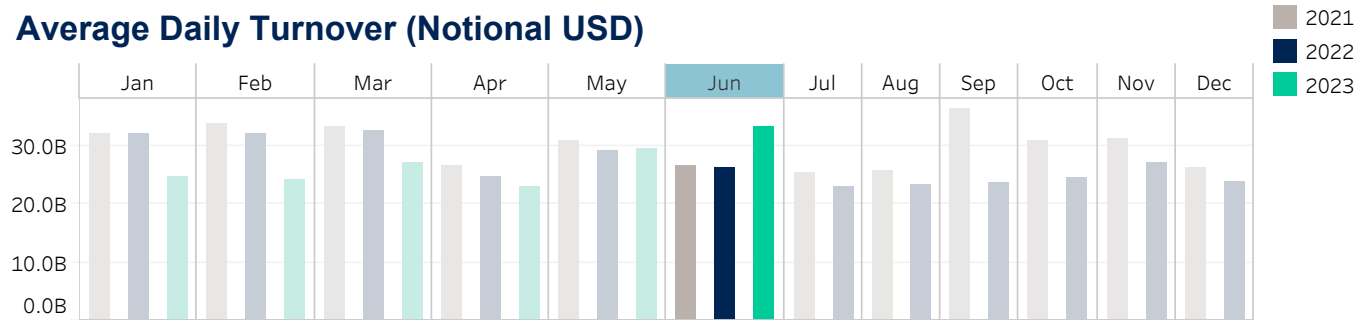
FirstHalfHour	11,776	13,865	13,413	13,565	11,717	11,880	4,051	4,423	4,390	4,663	4,290	4,454
MidDay	15,847	17,474	15,741	15,771	13,954	14,210	5,045	5,182	4,883	5,174	4,869	5,189
LastHalfHour	26,563	26,960	25,234	26,364	22,269	25,362	7,804	7,344	7,267	7,784	7,398	8,597

Median used for all metrics

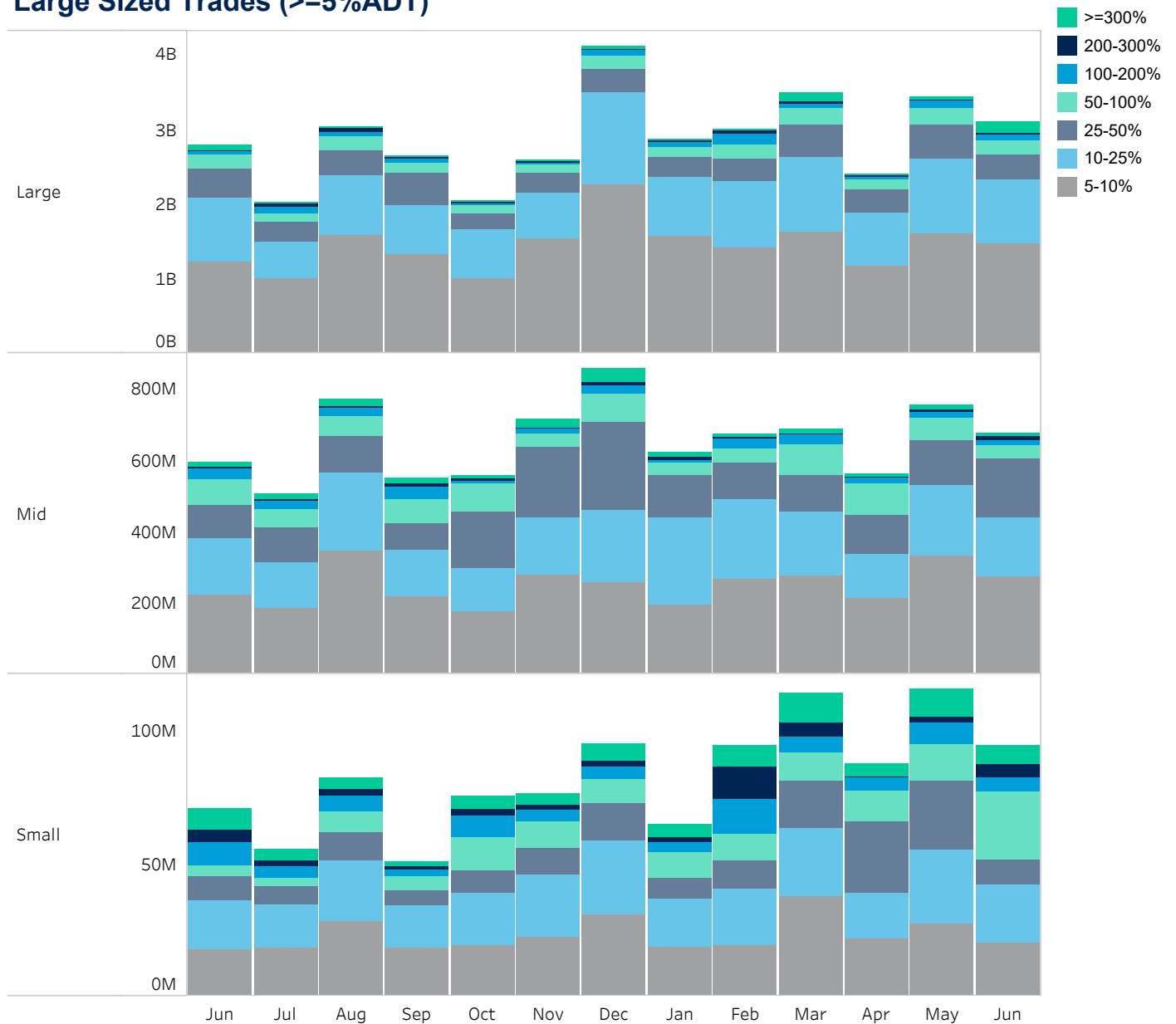
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP..

Japan

Average Daily Turnover (Notional USD)



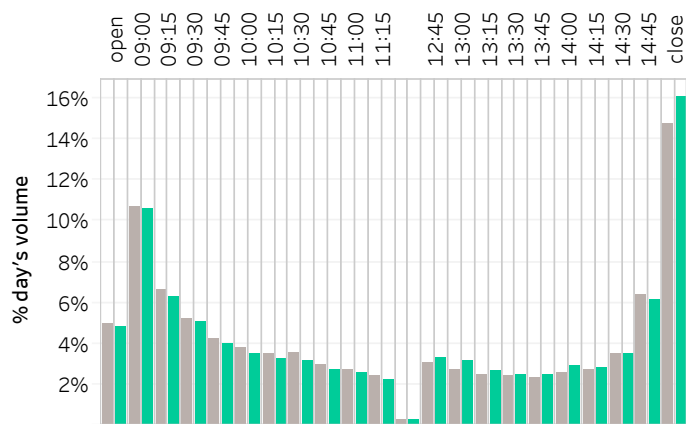
Large Sized Trades (>=5%ADT)



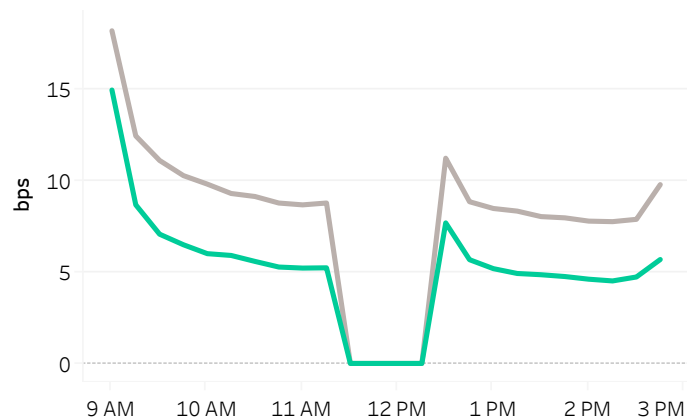
Source data: Virtu Financial

Japan

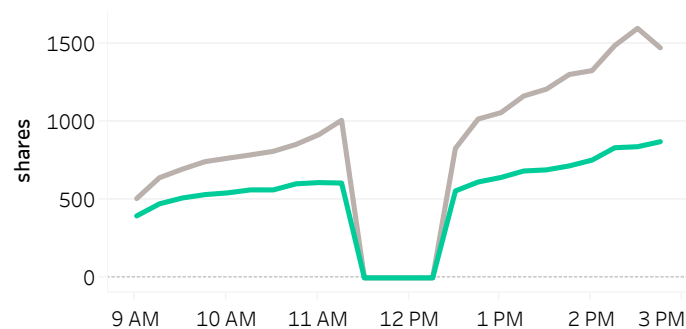
Volume Curve



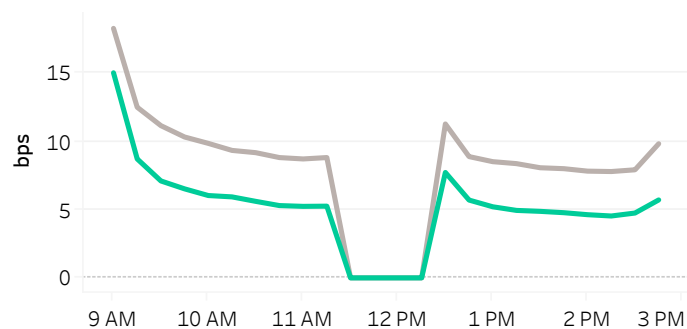
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg June 2023

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	16.4	16.2	15.9	15.6	15.3	16.0	15.3	15.5	12.4
MidDay	9.3	9.3	9.0	8.6	8.8	9.1	8.5	8.9	5.7
LastHalfHour	9.6	9.4	9.4	9.1	9.1	9.5	9.2	9.2	5.4

One Minute Volatility Bps

FirstHalfHour	17.6	17.7	16.1	16.2	16.1	16.3	15.4	16.4	14.8
MidDay	8.5	8.7	8.4	8.0	8.3	8.4	7.7	8.5	6.7
LastHalfHour	9.7	9.7	9.5	9.3	9.3	9.4	8.9	9.3	7.1

Quotesize (shares)

FirstHalfHour	531	563	561	550	593	556	564	569	427
MidDay	809	927	902	897	1,012	891	951	968	582
LastHalfHour	1,375	1,572	1,441	1,414	1,620	1,387	1,495	1,578	860

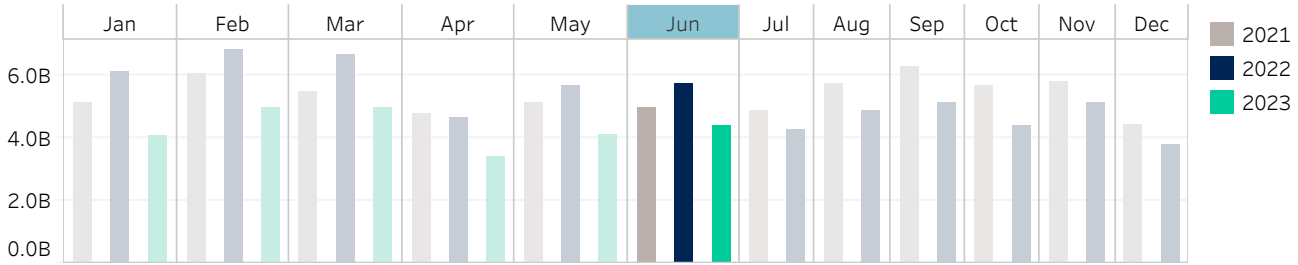
Median used for all metrics

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

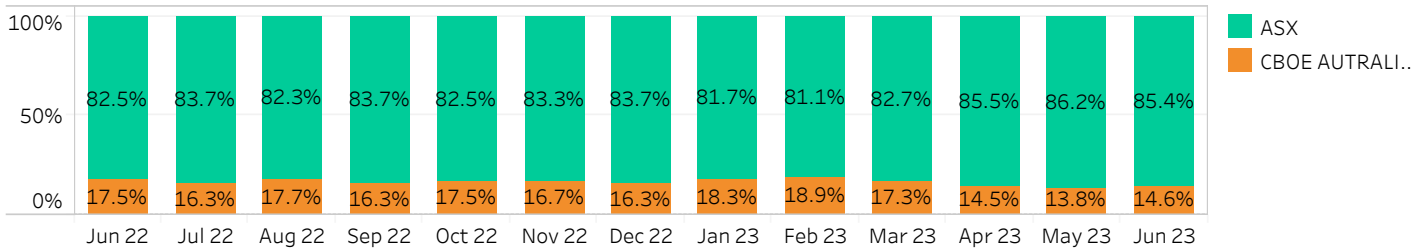
Source data: Virtu Financial

Australia

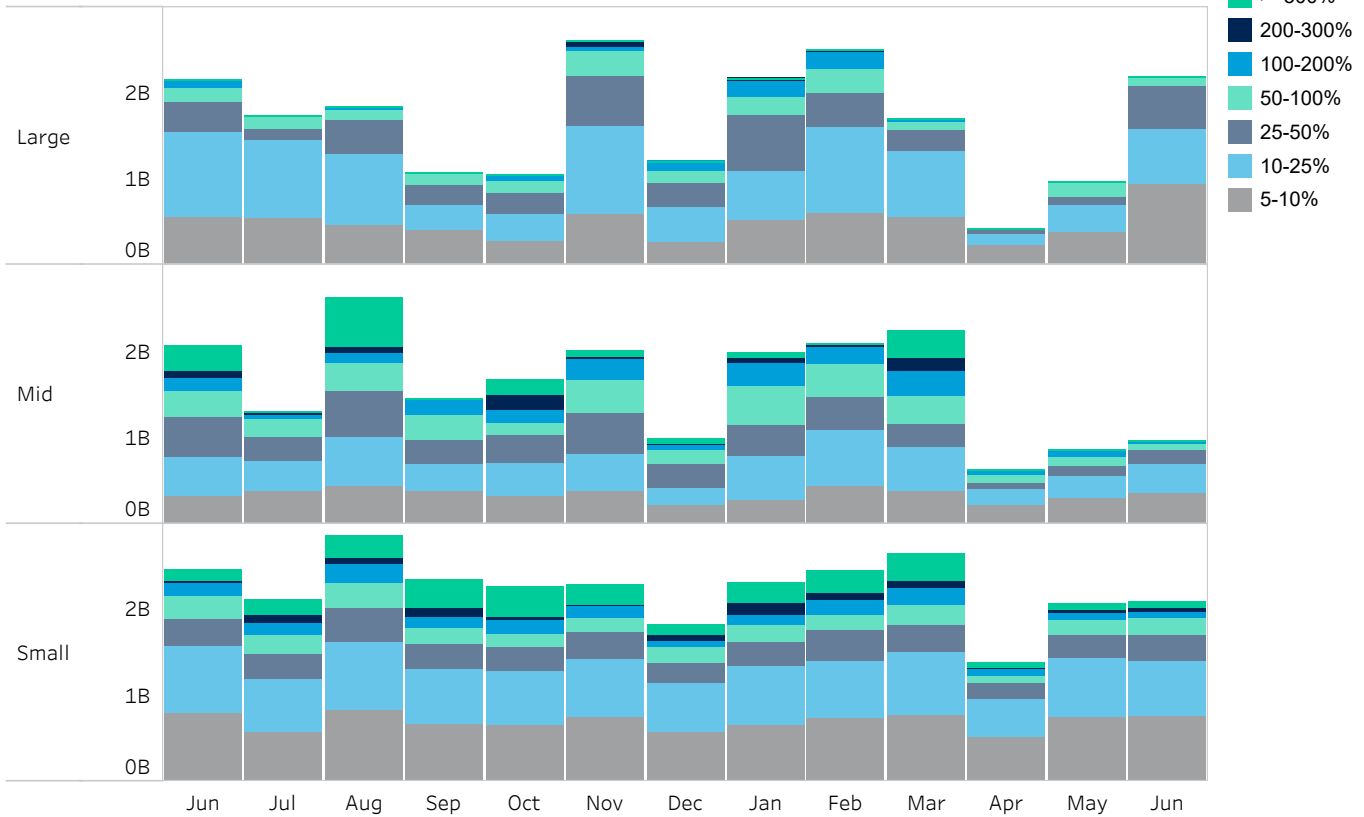
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)



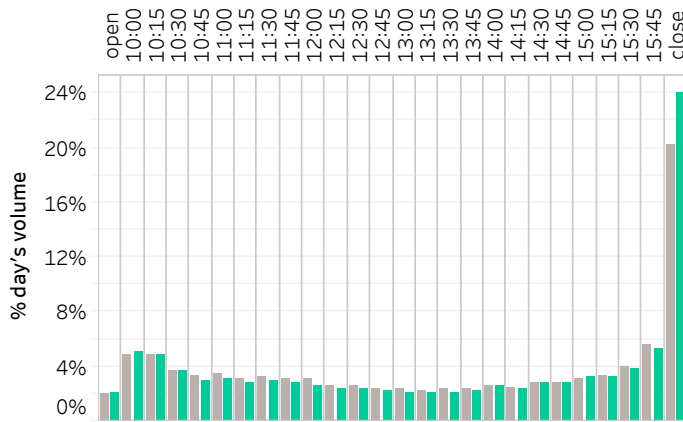
Large Sized Trades (>=5%ADT)



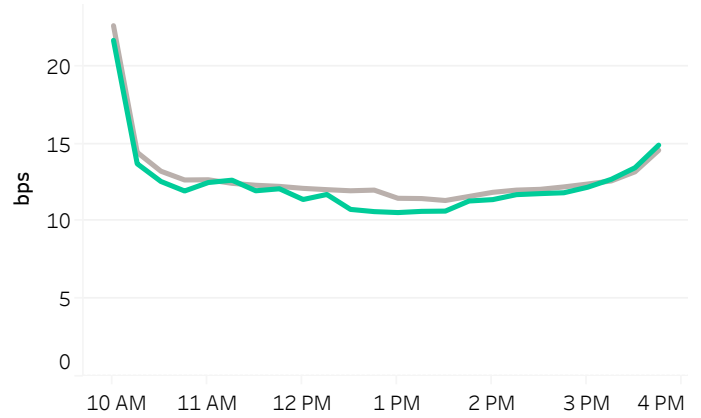
Source data: Virtu Financial

Australia

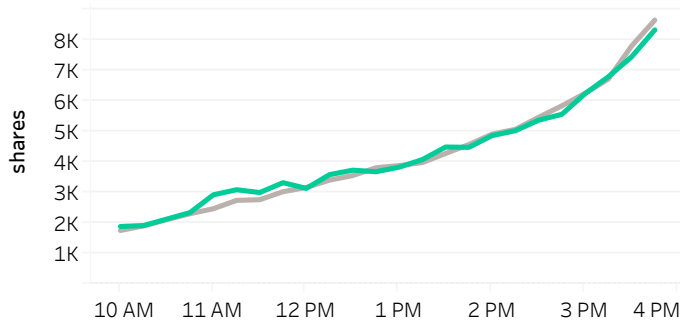
Volume Curve



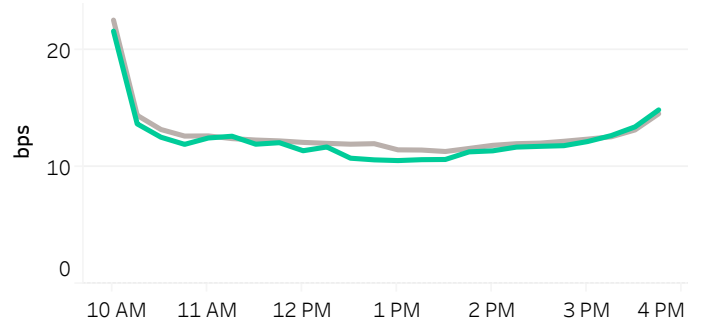
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg June 2023

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	18.9	17.5	16.6	15.9	16.8	17.4	17.4	17.0	16.6
MidDay	13.0	12.5	12.1	11.1	11.6	12.4	12.1	11.6	11.8
LastHalfHour	14.9	13.9	13.7	13.1	13.8	14.3	14.3	13.7	14.0

One Minute Volatility Bps

FirstHalfHour	19.1	21.3	21.7	20.6	19.1	18.7	22.9	21.5	20.4
MidDay	9.9	10.3	10.7	9.5	9.2	9.8	12.3	11.4	10.5
LastHalfHour	12.2	12.5	13.2	12.4	11.9	12.5	13.8	12.9	12.6

Quotesize (shares)

FirstHalfHour	1,938	2,000	1,772	1,629	1,640	1,864	2,108	1,897	1,901
MidDay	4,056	4,453	3,558	3,279	3,260	3,759	3,968	3,313	3,860
LastHalfHour	9,008	9,111	7,705	6,643	7,185	8,215	8,141	7,163	8,042

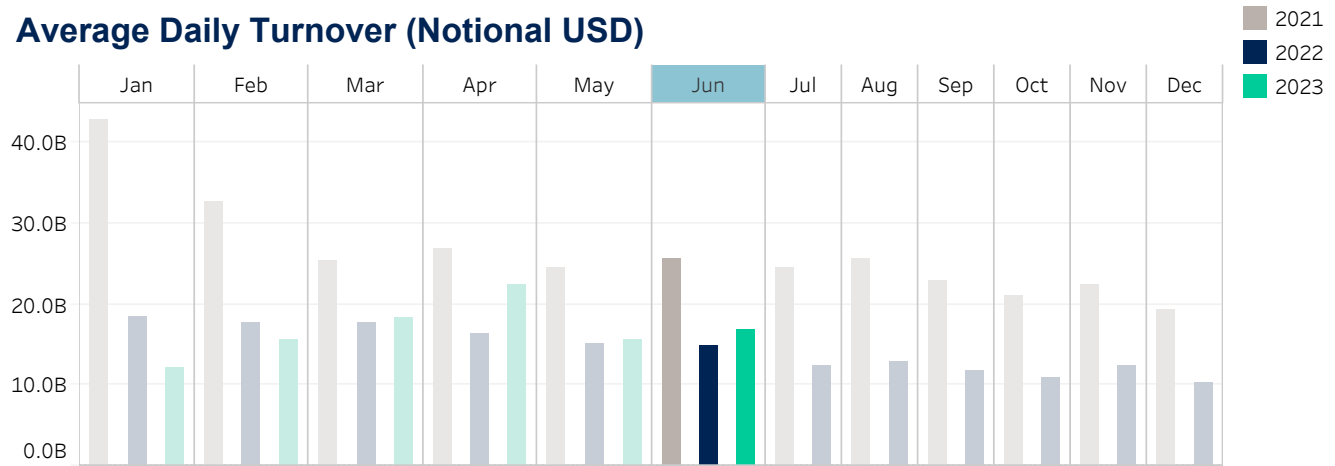
Median used for all metrics

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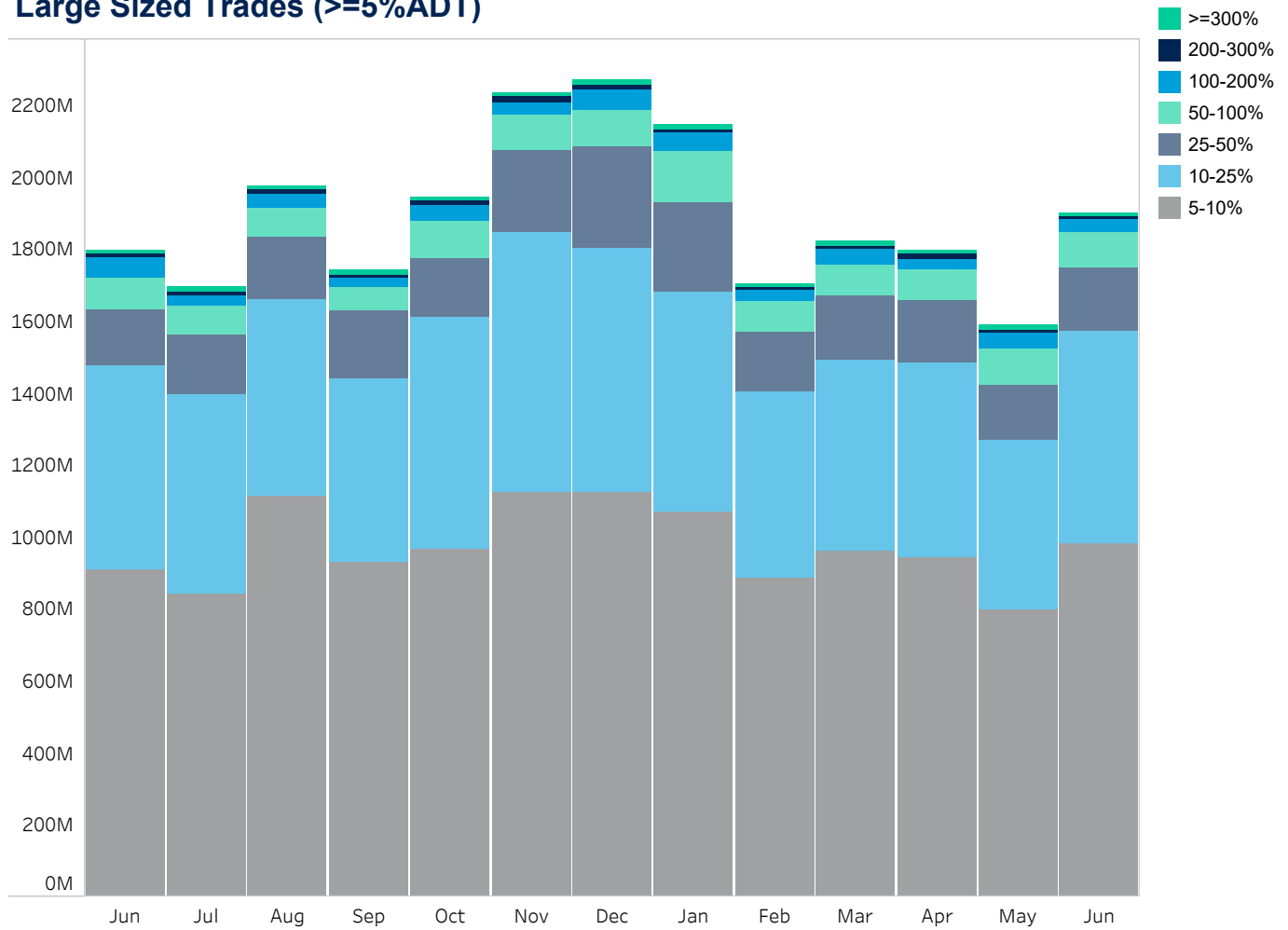
Source data: Virtu Financial

South Korea

Average Daily Turnover (Notional USD)



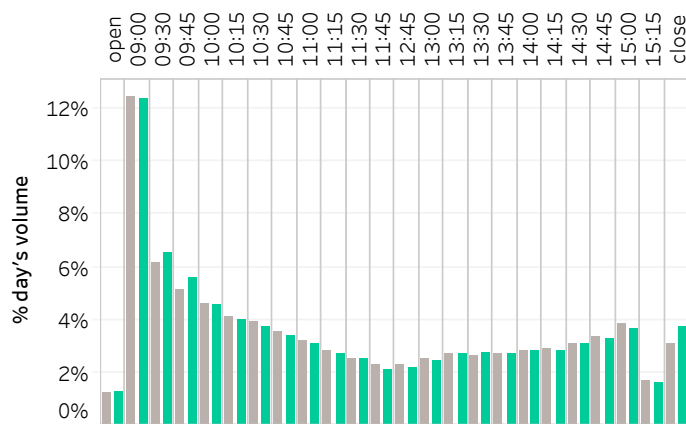
Large Sized Trades (>=5%ADT)



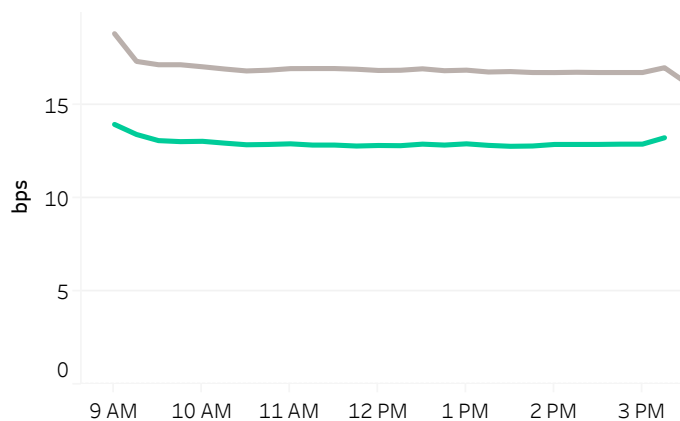
Source data: Virtu Financial

Korea

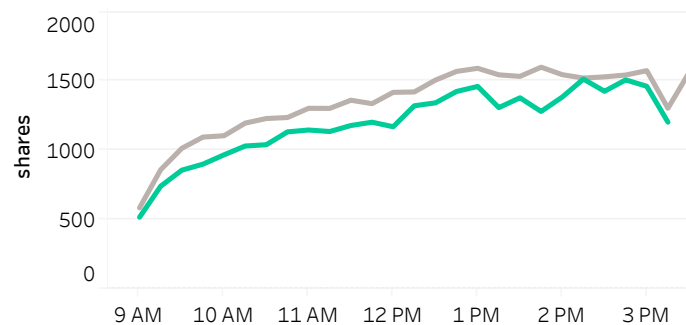
Volume Curve



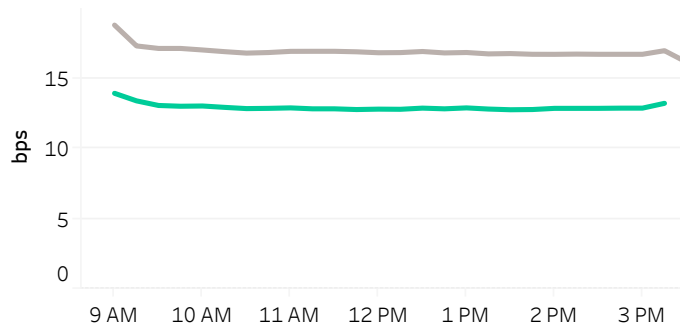
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ June 2023

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	19.1	18.1	18.1	17.4	14.7	14.7	14.3	14.0	13.7
MidDay	17.5	16.7	17.1	16.5	13.5	13.4	12.9	12.9	12.9
LastHalfHour	17.5	16.2	17.1	16.5	13.7	13.5	13.1	13.0	13.0

One Minute Volatility Bps

FirstHalfHour	29.4	23.6	24.9	25.6	22.7	21.5	32.7	31.4	29.5
MidDay	18.1	14.9	15.0	14.8	14.2	14.0	19.6	18.7	18.7
LastHalfHour	18.9	15.6	16.0	15.9	14.9	14.8	20.8	19.7	20.6

Quotesize (shares)

FirstHalfHour	704	716	803	727	655	595	579	580	634
MidDay	1,415	1,541	1,721	1,396	1,188	1,025	1,014	1,166	1,249
LastHalfHour	1,529	1,360	1,628	1,506	1,447	1,390	1,189	1,277	1,444

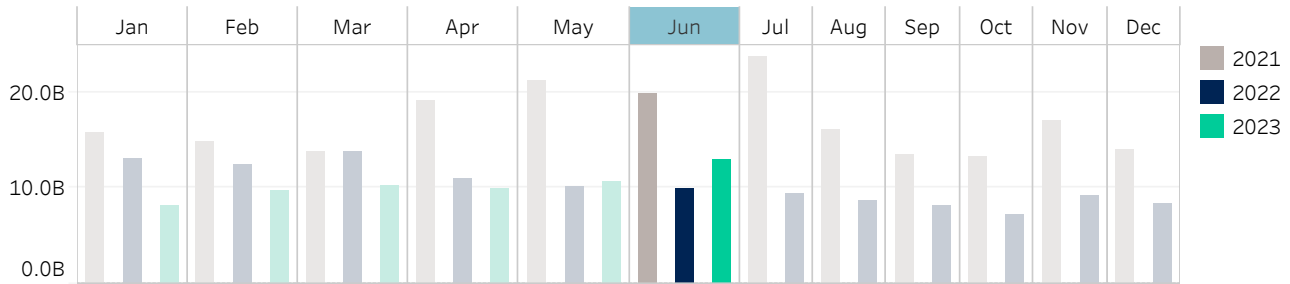
Median used for all metrics

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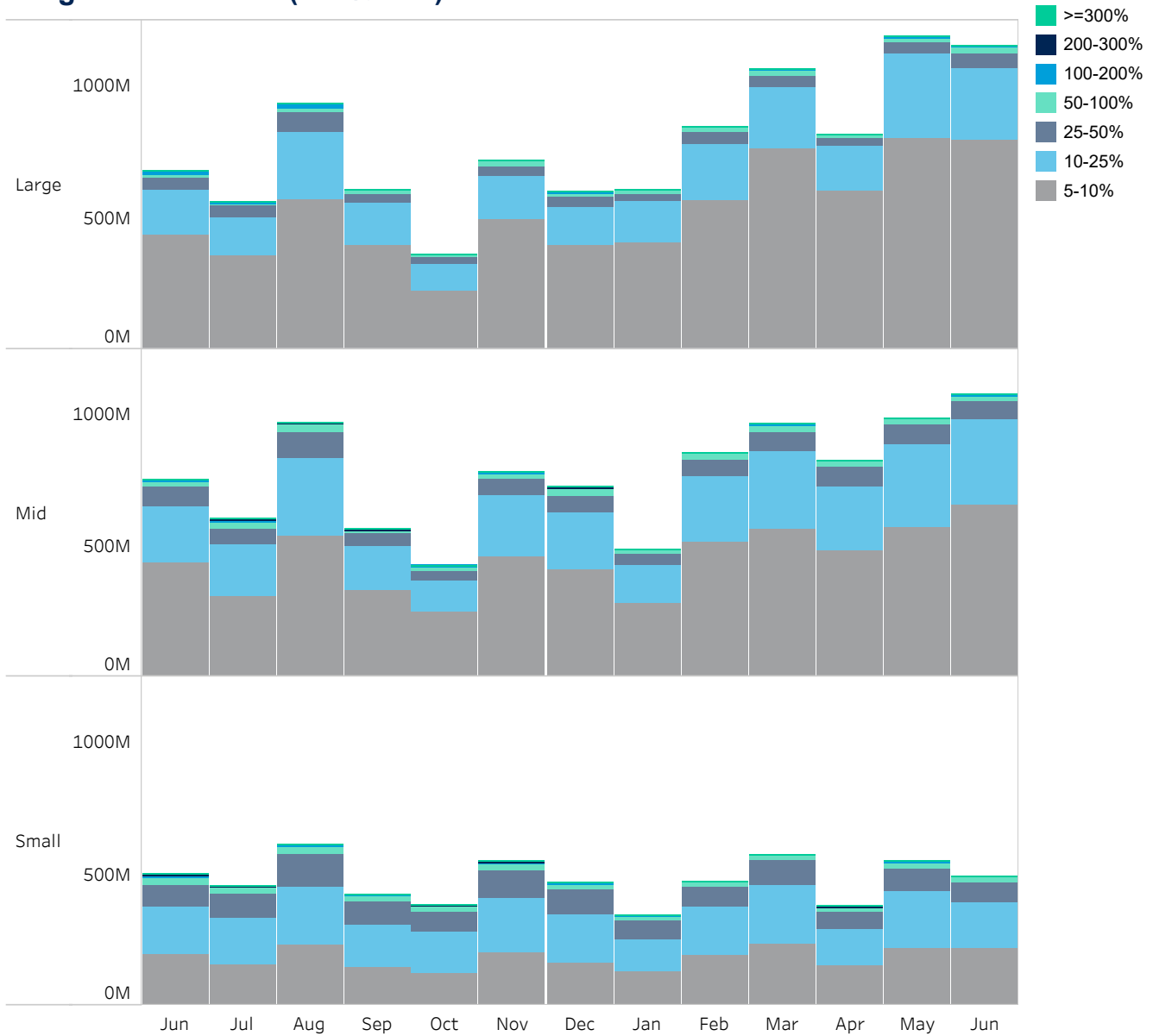
Source data: Virtu Financial

Taiwan

Average Daily Turnover (Notional USD)



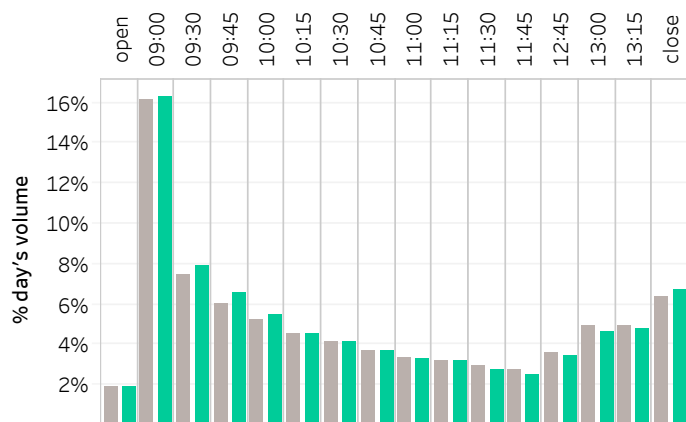
Large Sized Trades (>=5%ADT)



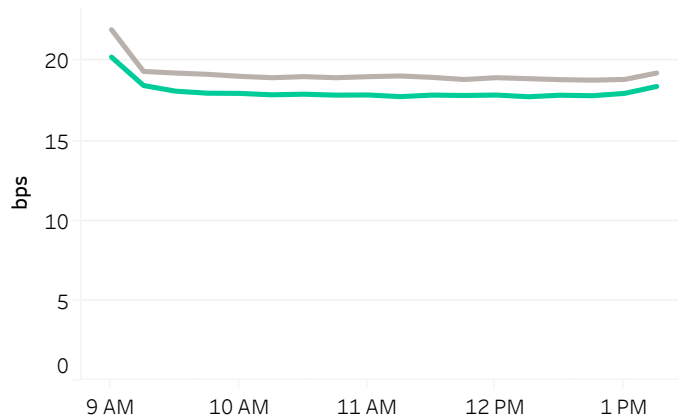
Source data: Virtu Financial

Taiwan

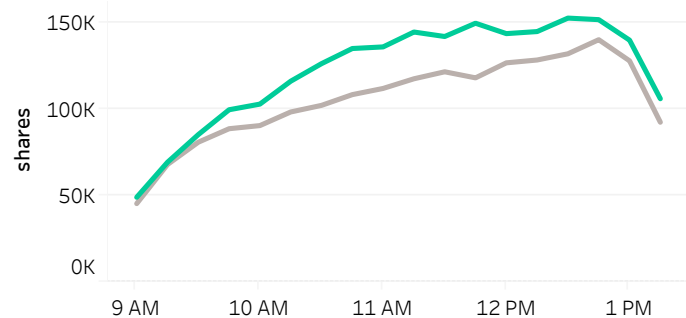
Volume Curve



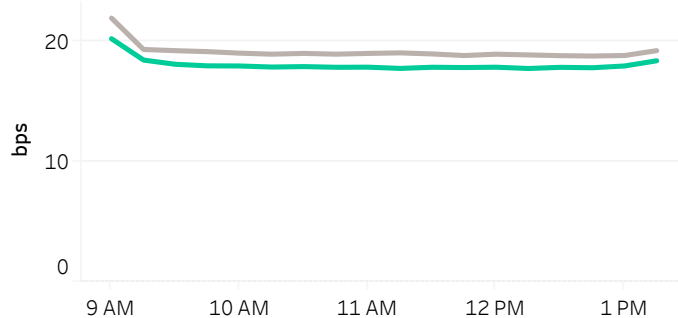
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg June 2023

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	24.0	21.5	20.9	20.2	20.6	20.1	19.9	19.8	19.3
MidDay	20.9	19.1	19.2	18.5	18.9	19.0	18.9	18.2	17.8
LastHalfHour	21.2	19.2	19.2	18.7	18.9	19.1	19.0	18.3	18.1

One Minute Volatility Bps

FirstHalfHour	31.1	31.3	31.6	30.3	31.3	31.2	34.5	30.8	31.0
MidDay	28.9	28.9	29.1	28.8	28.1	28.4	25.8	23.4	28.6
LastHalfHour	29.0	28.9	29.6	29.2	28.3	28.9	26.7	23.6	28.9

Quotesize (shares)

FirstHalfHour	42,999	52,487	55,849	59,008	57,971	61,802	53,240	60,150	57,819
MidDay	77,390	113,736	109,432	118,834	117,559	138,448	125,681	133,760	139,513
LastHalfHour	81,045	112,549	102,743	113,870	116,979	124,571	121,314	127,420	122,742

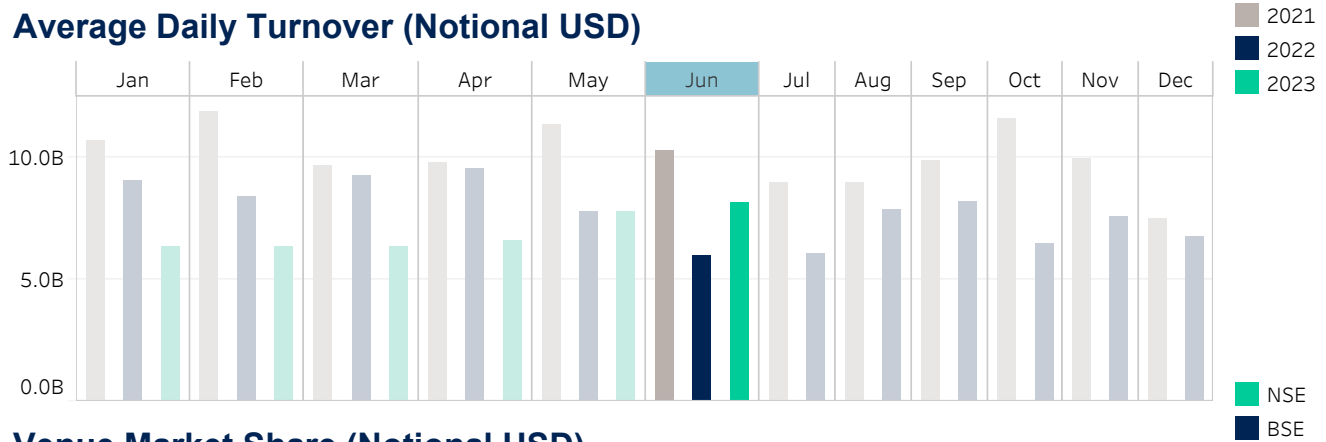
Median used for all metrics

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

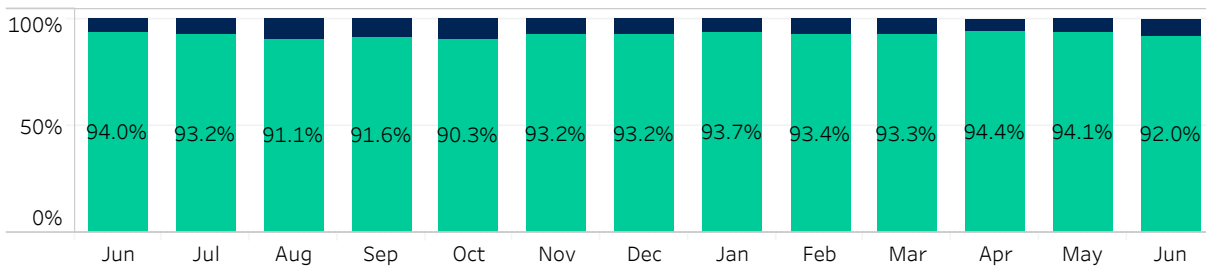
Source data: Virtu Financial

India

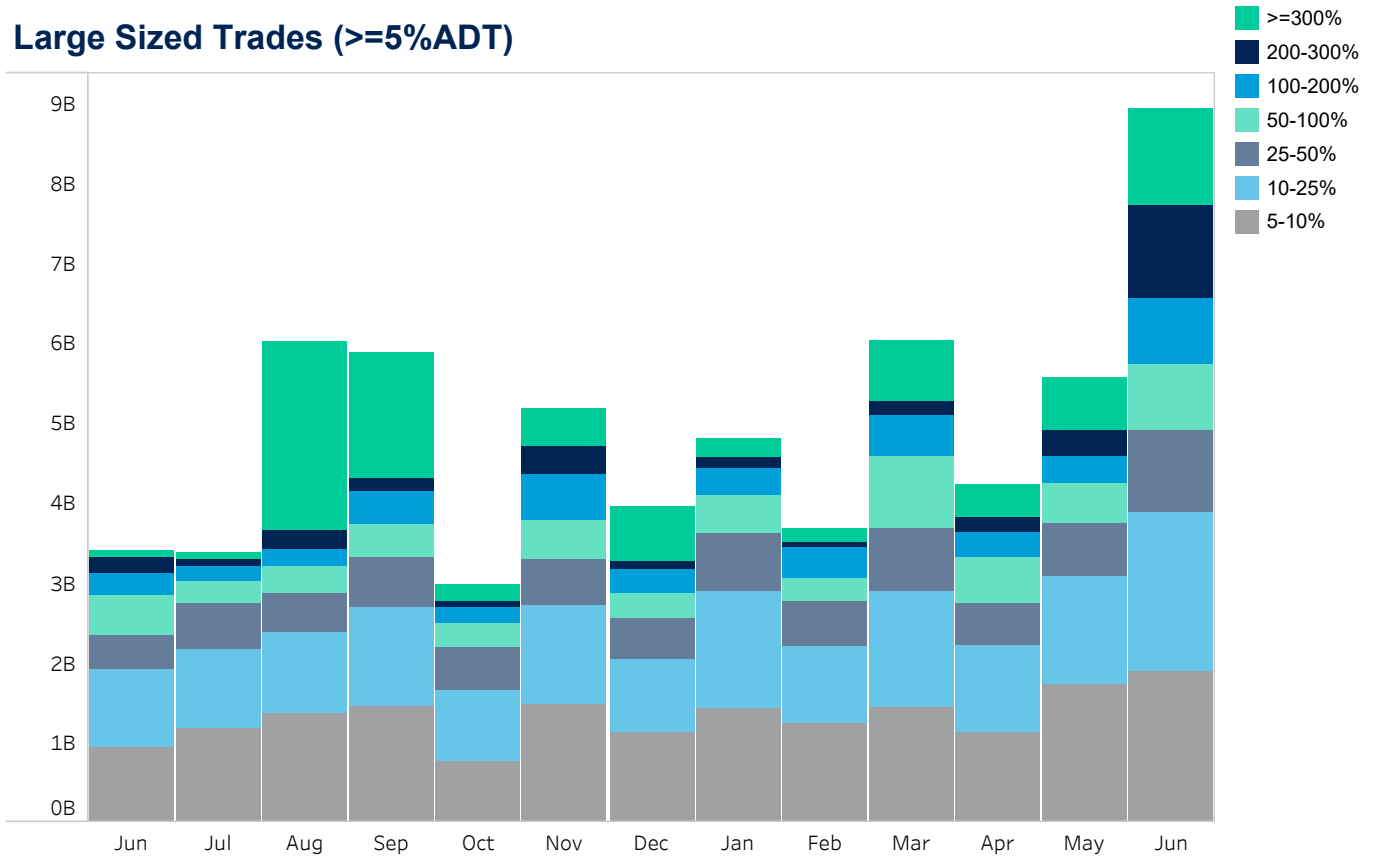
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)

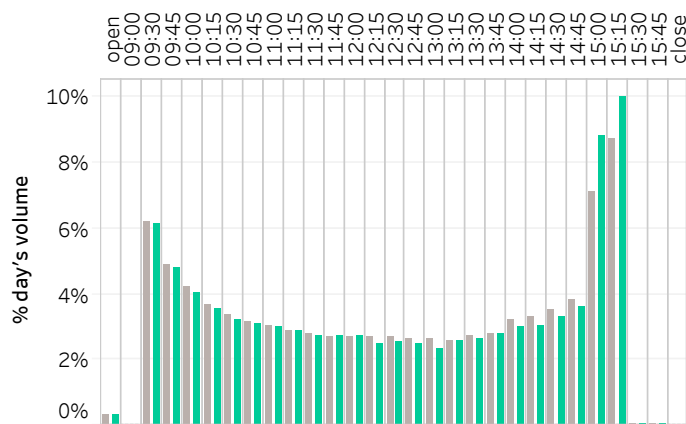


Large Sized Trades (>=5%ADT)

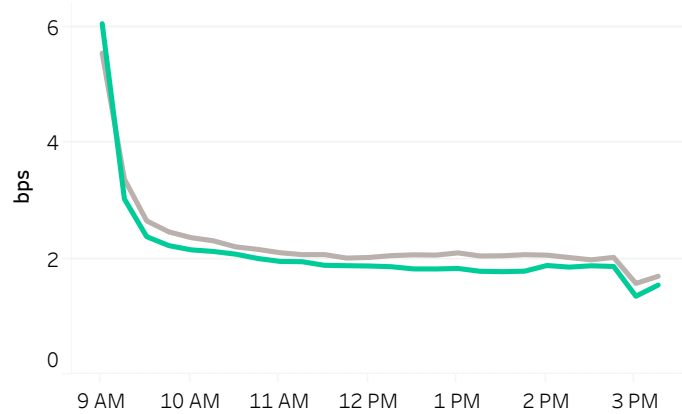


India

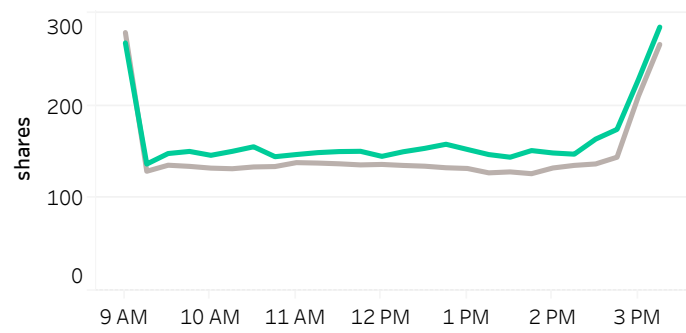
Volume Curve



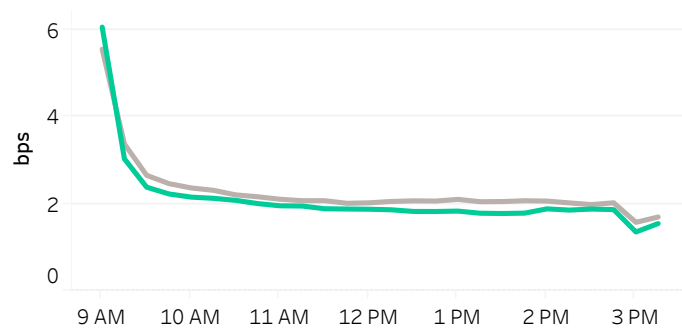
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg (Grey line) June 2023 (Green line)

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	3.5	3.3	3.4	3.5	3.7	3.4	3.4	3.3	3.1
MidDay	2.1	1.9	2.0	2.1	2.2	2.1	2.1	2.0	1.9
LastHalfHour	1.6	1.6	1.6	1.7	1.8	1.7	1.7	1.6	1.5

One Minute Volatility Bps

FirstHalfHour	18.8	19.7	19.1	17.2	16.6	15.2	20.3	18.4	18.0
MidDay	8.2	8.4	8.2	7.1	7.0	6.8	8.2	7.4	7.7
LastHalfHour	10.1	10.3	10.5	9.1	9.2	9.1	10.2	9.7	10.2

Quotesize (shares)

FirstHalfHour	125.4	138.7	120.1	121.8	119.8	123.5	133.9	142.2	143.1
MidDay	131.3	143.8	122.4	128.7	124.1	124.2	143.1	151.0	151.7
LastHalfHour	243.8	257.7	257.9	228.8	249.5	253.0	256.4	262.0	268.0

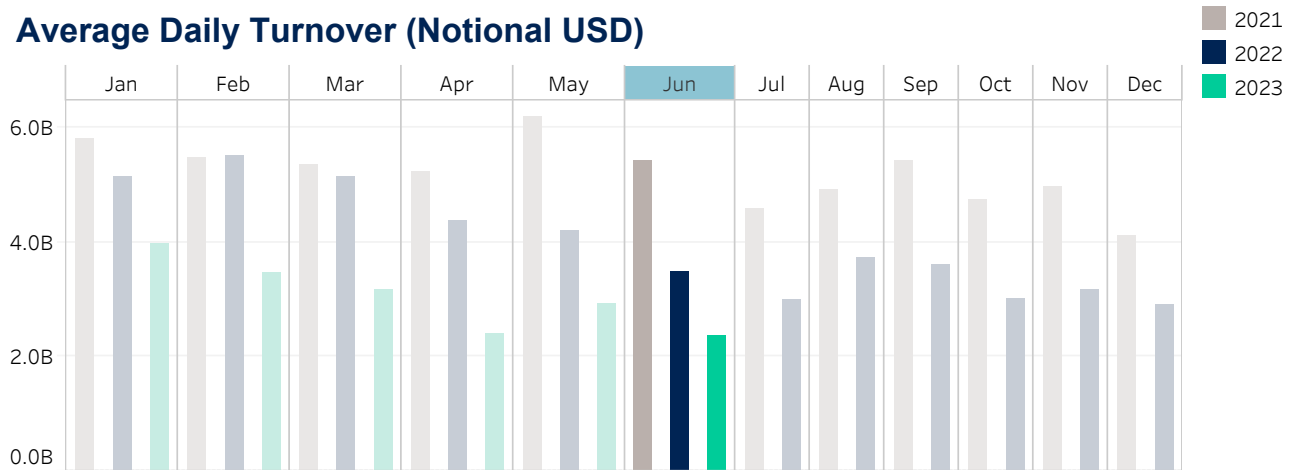
Median used for all metrics

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

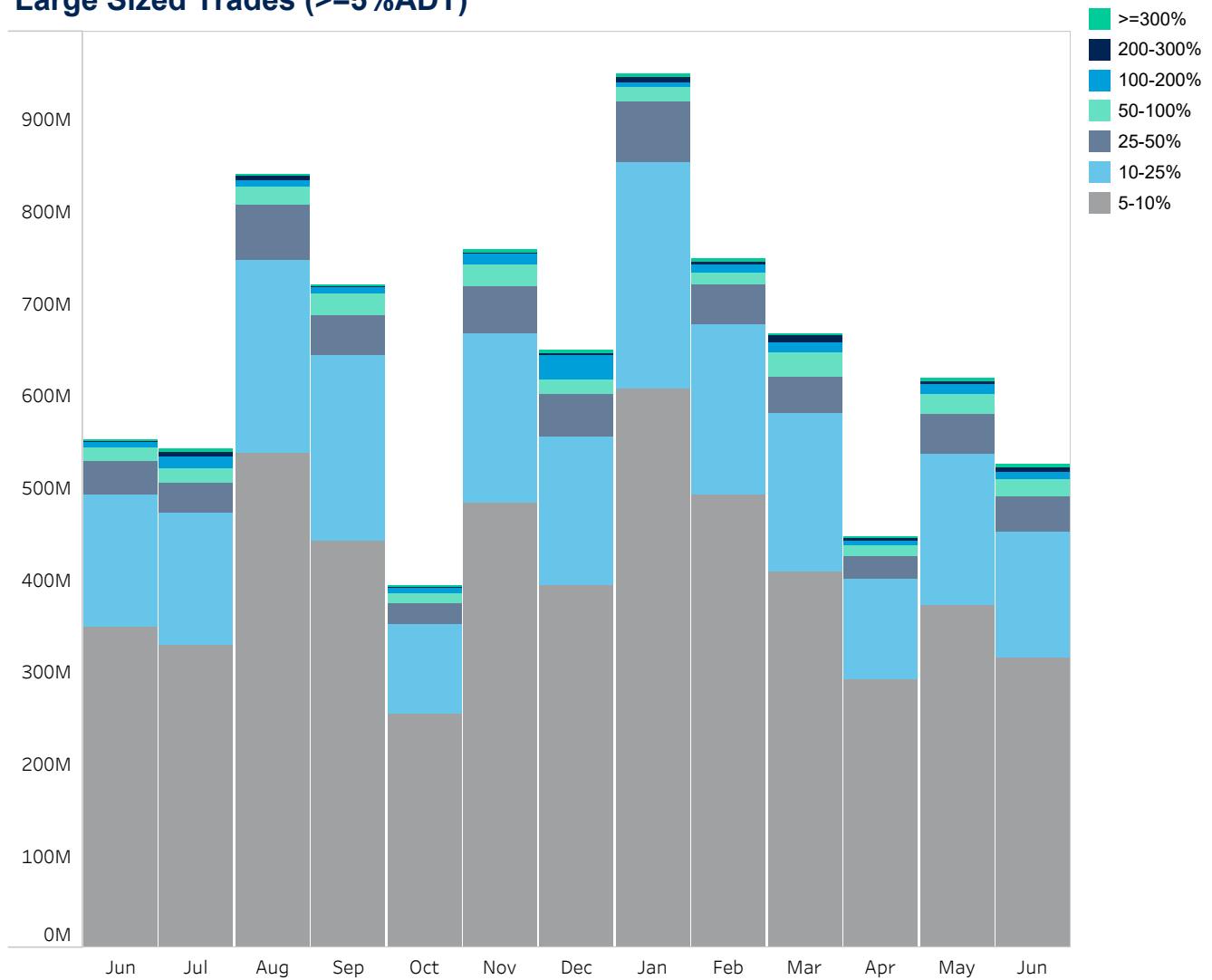
Source data: Virtu Financial

Thailand

Average Daily Turnover (Notional USD)



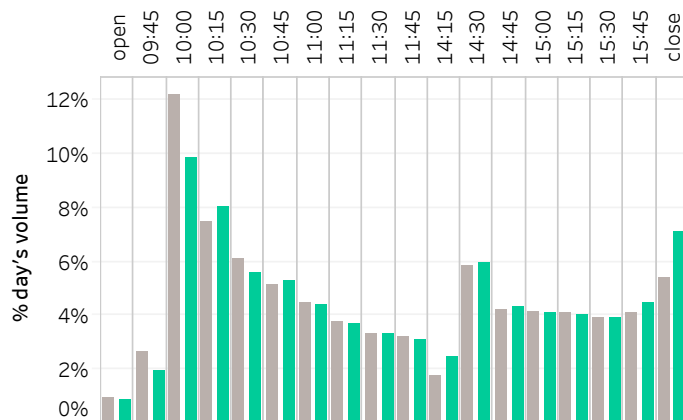
Large Sized Trades (>=5%ADT)



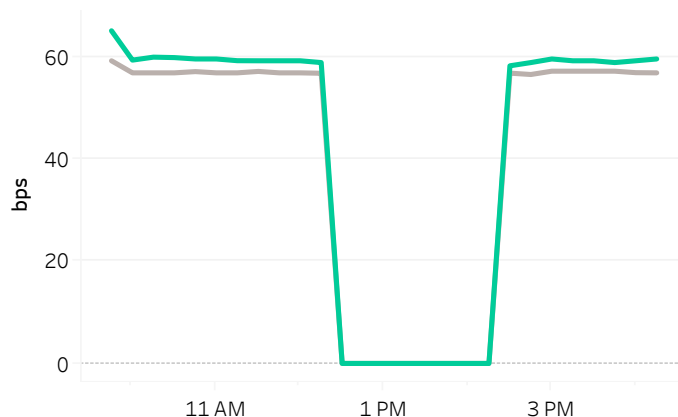
Source data: Virtu Financial

Thailand

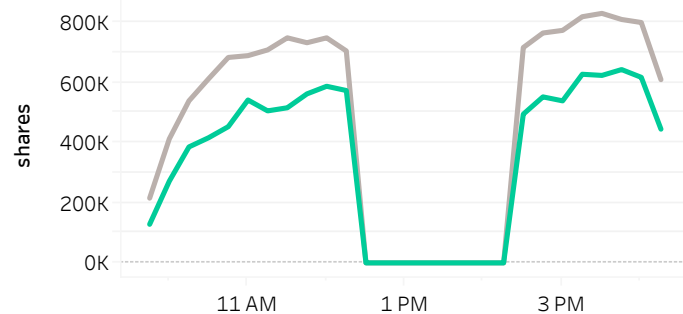
Volume Curve



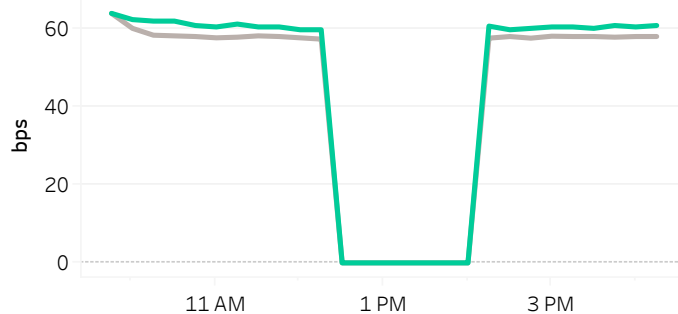
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg June 2023

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	61.2	61.0	58.1	58.0	56.4	59.5	59.2	65.1	65.6
MidDay	59.2	57.6	55.9	54.1	54.1	56.0	55.8	58.4	59.3
LastHalfHour	59.7	57.3	55.7	54.2	54.8	56.7	56.0	58.7	59.3

One Minute Volatility Bps

FirstHalfHour	64.3	61.9	67.8	60.8	63.9	63.5	74.9	71.7	74.1
MidDay	55.4	55.4	57.6	57.0	60.4	60.8	60.8	58.3	56.7
LastHalfHour	56.0	56.0	58.3	57.6	60.1	60.8	60.4	58.0	56.7

Quotesize (shares)

FirstHalfHour	217,331	227,211	245,311	284,548	236,082	219,491	200,957	156,753	157,282
MidDay	691,861	760,712	805,102	865,107	737,967	634,271	624,930	536,008	510,989
LastHalfHour	620,002	675,335	738,049	812,231	679,491	552,716	570,432	472,021	490,710

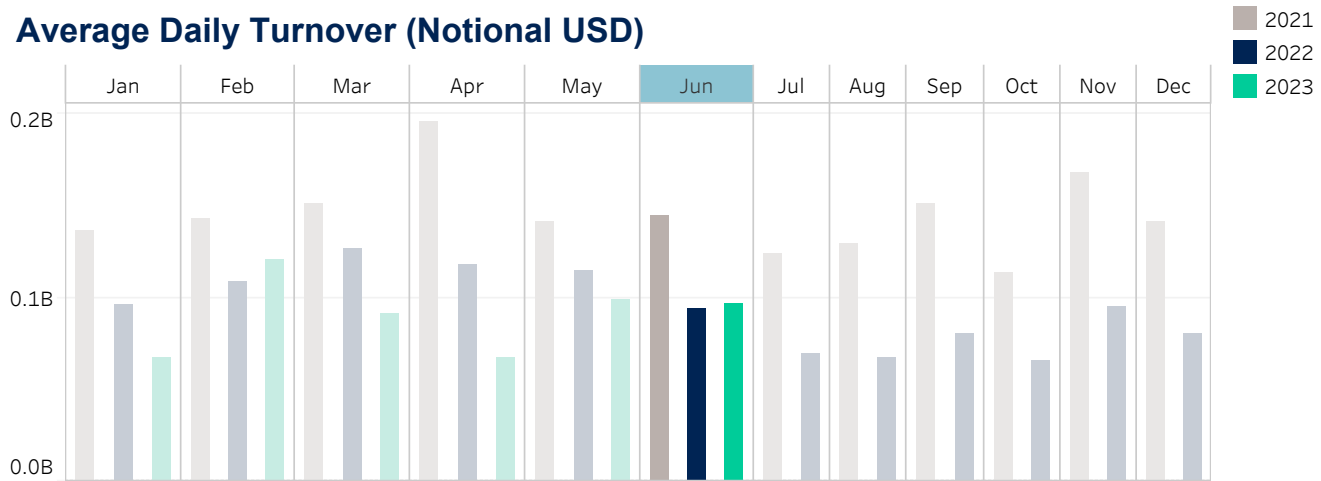
Median used for all metrics

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

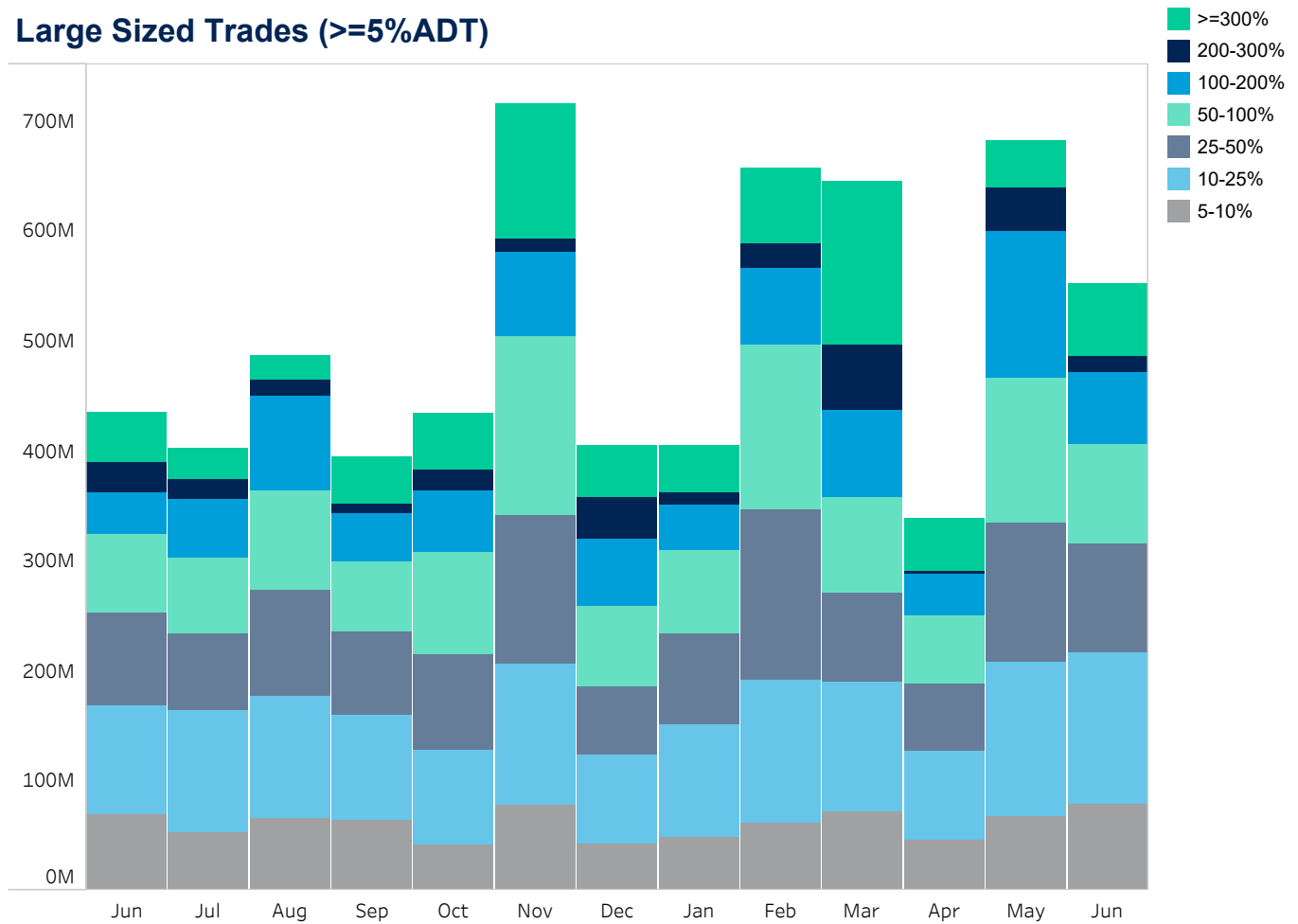
Source data: Virtu Financial

New Zealand

Average Daily Turnover (Notional USD)



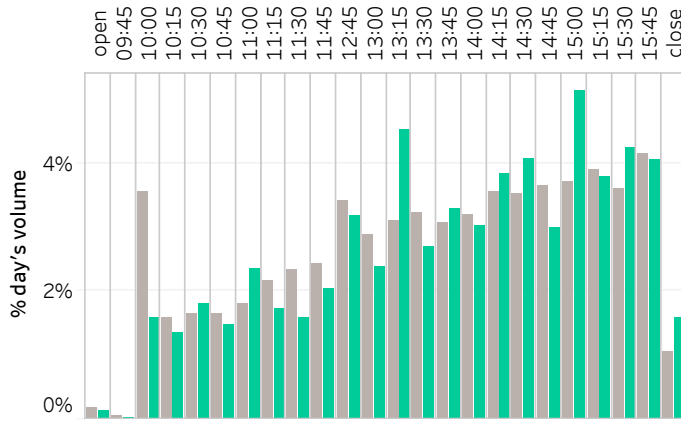
Large Sized Trades (>=5%ADT)



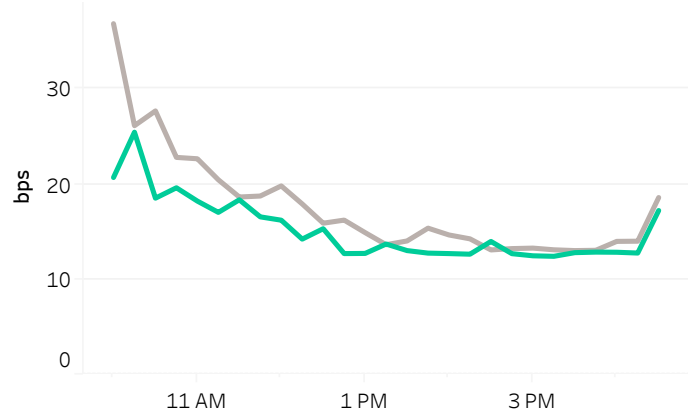
Source data: Virtu Financial

New Zealand

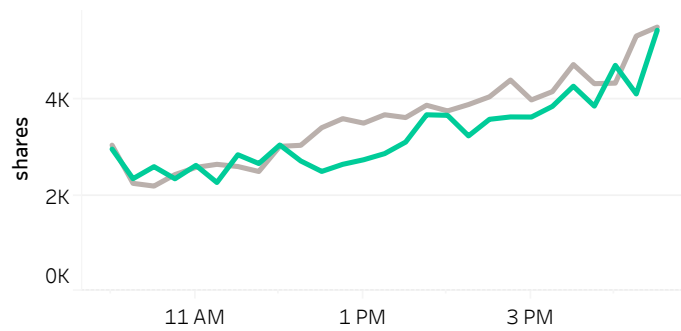
Volume Curve



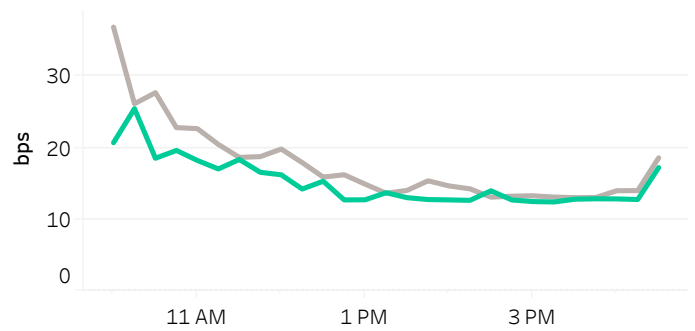
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ June 2023

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	34.5	38.8	33.0	28.6	36.2	32.4	23.3	33.5	23.1
MidDay	17.2	17.4	14.4	13.0	14.2	13.5	13.8	13.7	13.3
LastHalfHour	20.3	19.7	19.9	17.6	19.1	17.5	18.4	17.4	17.7

One Minute Volatility Bps

FirstHalfHour	19.2	20.9	23.1	19.0	18.6	15.9	25.5	25.6	20.2
MidDay	12.9	15.1	13.8	15.2	13.3	13.3	17.7	17.3	14.7
LastHalfHour	18.7	23.1	19.7	19.0	18.2	18.5	21.5	22.0	21.1

Quotesize (shares)

FirstHalfHour	2,695	2,859	2,800	2,352	2,572	2,470	2,669	2,496	2,658
LastHalfHour	5,615	5,396	6,890	5,554	6,137	4,537	5,071	4,691	5,091
MidDay	3,955	3,593	3,663	2,964	3,634	3,092	3,102	3,512	3,372

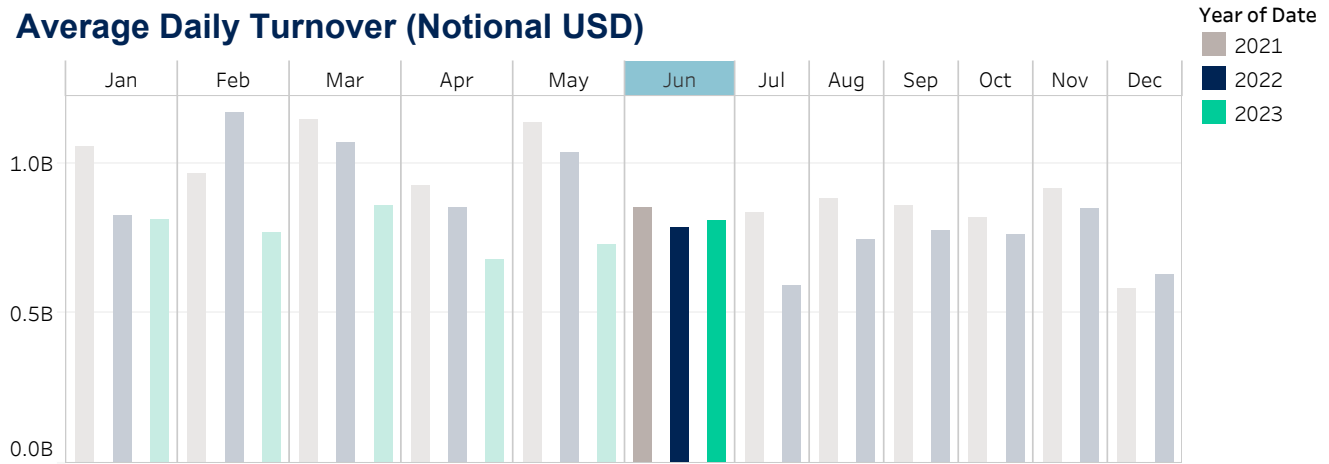
Median used for all metrics

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

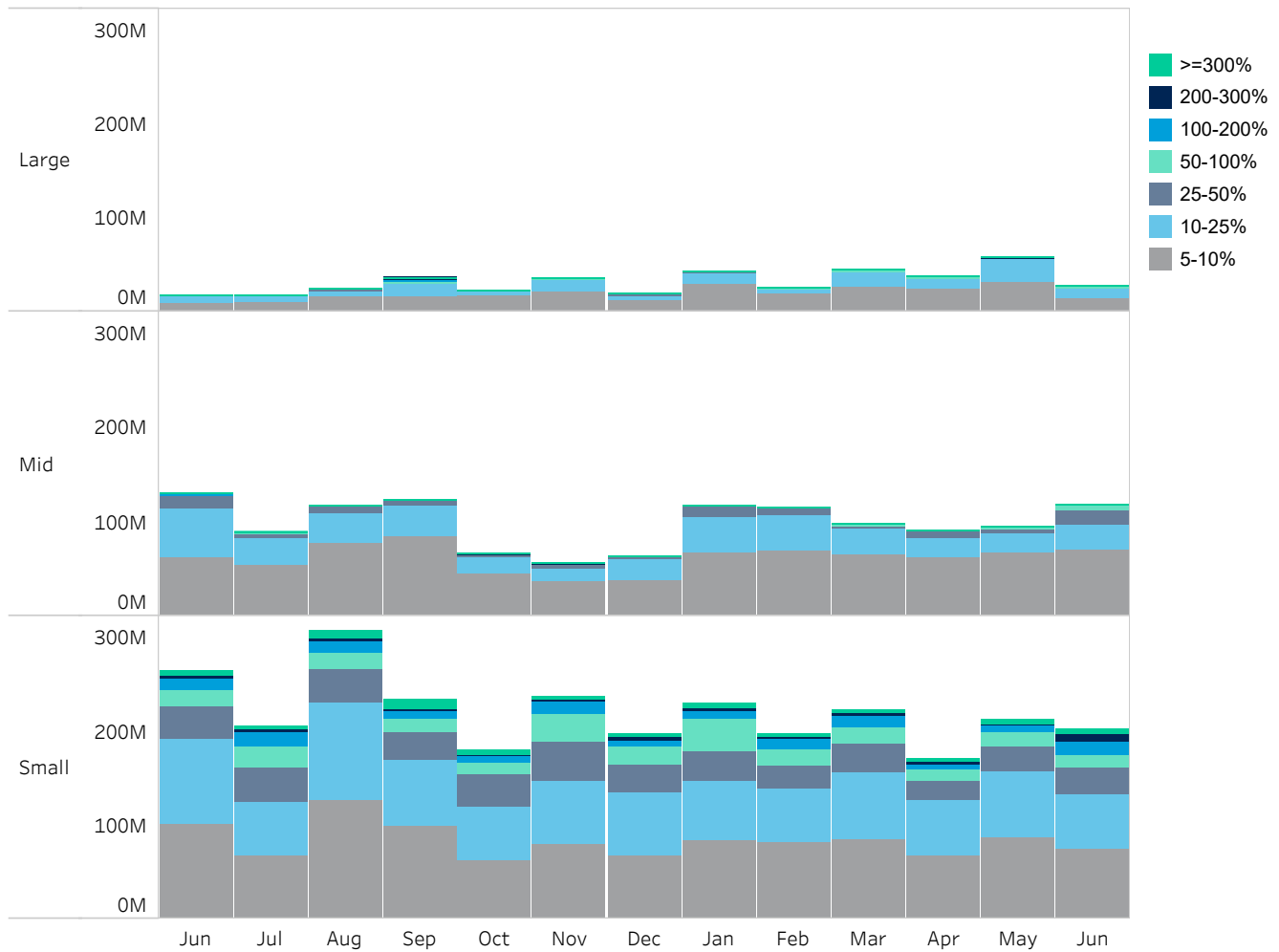
Source data: Virtu Financial

Singapore

Average Daily Turnover (Notional USD)



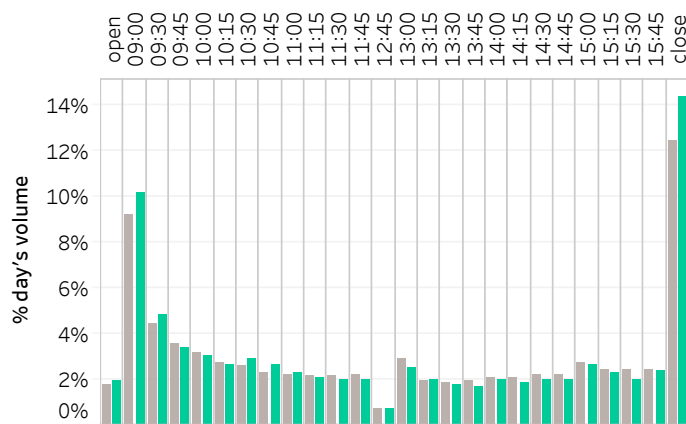
Large Sized Trades (>=5%ADT)



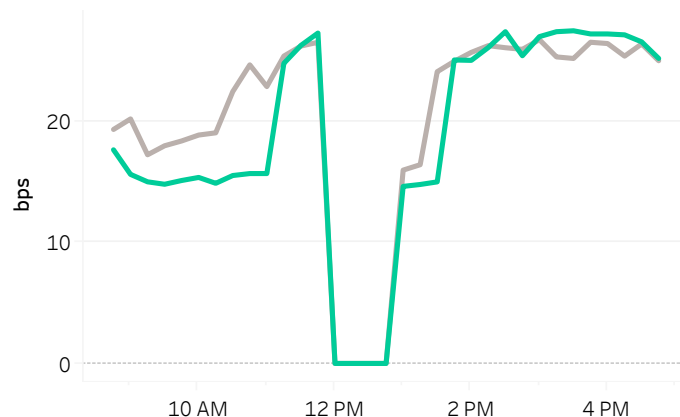
Source data: Virtu Financial

Singapore

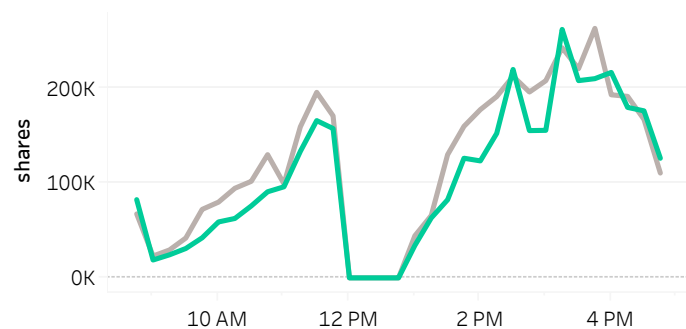
Volume Curve



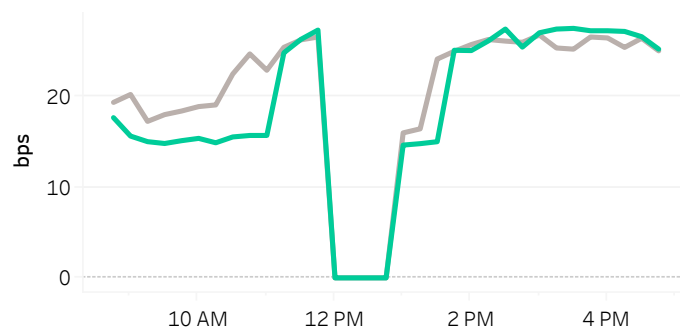
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ June 2023

Spread Bps

	2022			2023					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FirstHalfHour	19.2	16.5	18.0	19.8	14.5	16.6	14.2	16.4	16.6
MidDay	22.8	22.3	24.2	24.3	25.0	27.2	27.0	27.0	24.5
LastHalfHour	27.8	20.3	24.4	24.2	25.1	25.3	26.8	26.3	25.8

One Minute Volatility Bps

FirstHalfHour	37.7	43.5	34.5	34.4	35.7	41.7	66.4	44.0	34.5
MidDay	25.2	25.4	28.4	27.6	27.5	26.9	26.6	25.3	24.6
LastHalfHour	24.8	25.5	27.6	27.1	26.8	27.4	28.5	24.7	27.1

Quotesize (shares)

FirstHalfHour	41,303	59,495	65,760	55,481	49,035	126,098	48,869	57,725	86,605
MidDay	89,492	106,664	123,584	140,704	159,315	169,961	327,685	231,700	112,054
LastHalfHour	121,825	94,969	128,454	109,921	138,744	141,752	256,196	170,897	139,765

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

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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