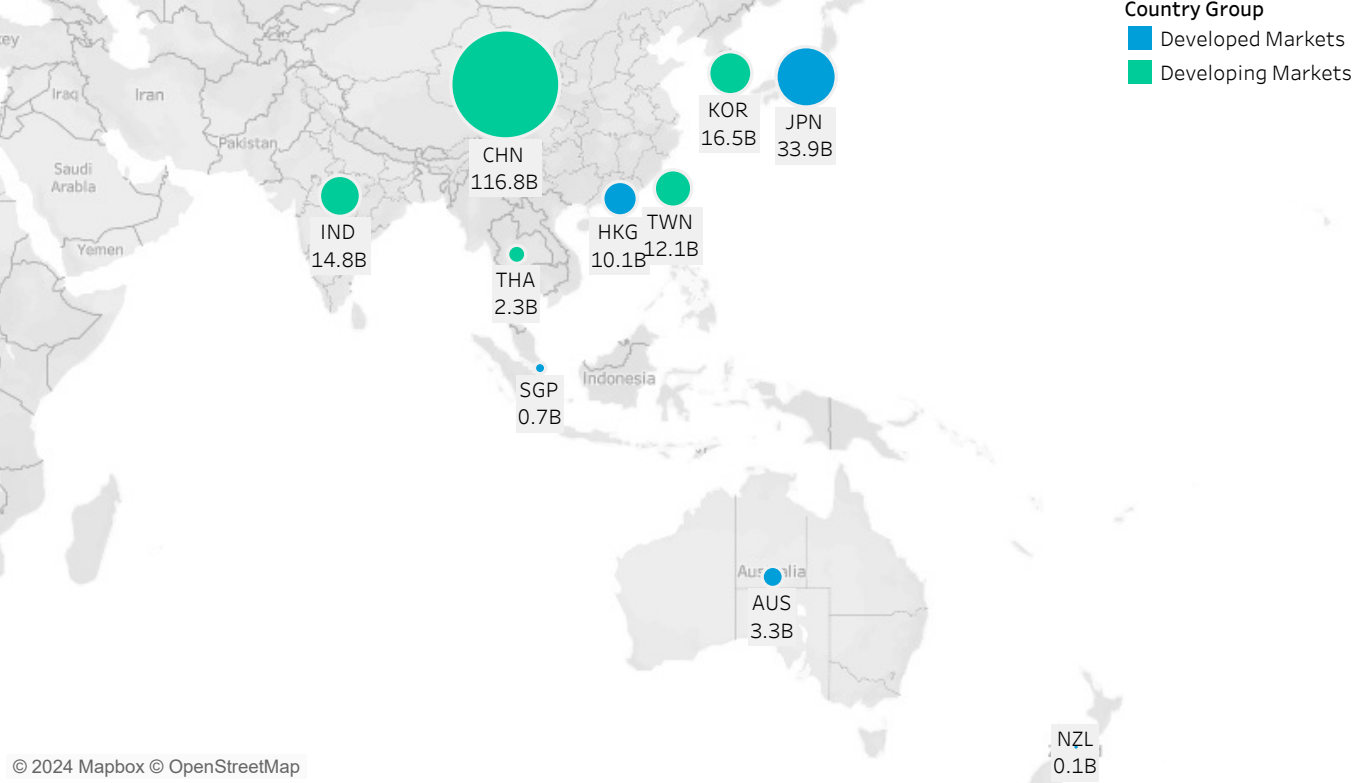


January 2024 APAC Market Structure Monthly

Average Daily Turnover (Notional USD)



Country Breakdowns

Hong Kong

China

Japan

Australia

South Korea

Taiwan

India

Thailand

New Zealand

Singapore

Jan 2024

AP Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- Japan saw the sharpest increase in average daily turnover (ADT), up +19.5% month-over-month (MoM) to US\$33.9B. 50%-100% ADV and 100%-200% ADV trades in small cap names also saw a noticeable uptick, up +105% and +76% to US\$189M and US\$171M respectively.
- ADT in India continued higher, increasing 10.3% MoM to US\$14.8B. This figure is up substantially (+135%) compared to January 2023 (US\$6.3B).
- More adverse trading conditions in Korea as intraday spreads widened to ~14bps, the highest level observed in 12 months. On average, intraday volatility increased ~8% MoM while intraday quote size remained consistent.

AP MARKET STRUCTURE NEWS

[Shenzhen Stock Exchange Published Measures of Fee Reduction and Exemption for 2024](#)

On 3 Jan 2024, China's Shenzhen Stock Exchange (SZSE) issued the Notice on Fee Reduction and Exemption for 2024, which set forth several fee reduction measures. The reduction includes waiving listing fees for SZSE-listed companies and funds, and exempting transaction unit flow fees for funds, bonds (excluding convertible bonds) and asset-backed securities, among other measures.

According to SZSE, it is expected that the total fee reduction and exemption in 2024 will exceed RMB 320M (US\$44.5M).

[Hong Kong Stock Exchange Plans to Introduce Self-Match Prevention Service in Late Q1 2024](#)

Hong Kong Stock Exchange (HKSE) is planning to introduce a new Self-Match Prevention (SMP) service in its securities market in late Q1 2024. The SMP service will be optional, supporting multi-broker model with the same SMP ID ("Prevent self-matching for orders with the same SMP ID within and across Exchange Participants"). An end-to-end testing window is open until 23 February 2024 (Friday) to test the functionality.

Supplemental PDF: <https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2024/CT00524E.pdf>

[Singapore Exchange Listed Its First Active Exchange Traded Fund](#)

On 31 Jan 2024, Singapore Exchange (SGX) announced the listing of its first active Exchange Traded Fund (ETF). This first SGX active ETF provides investors with exposure to diversified portfolio of 50 to 100 Japanese companies.

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

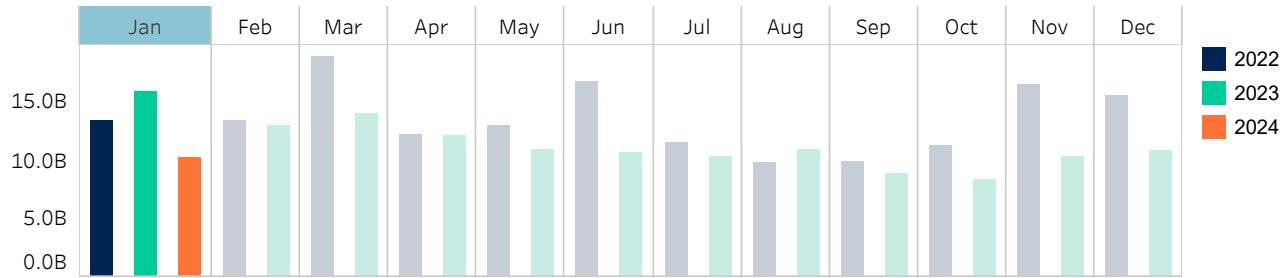
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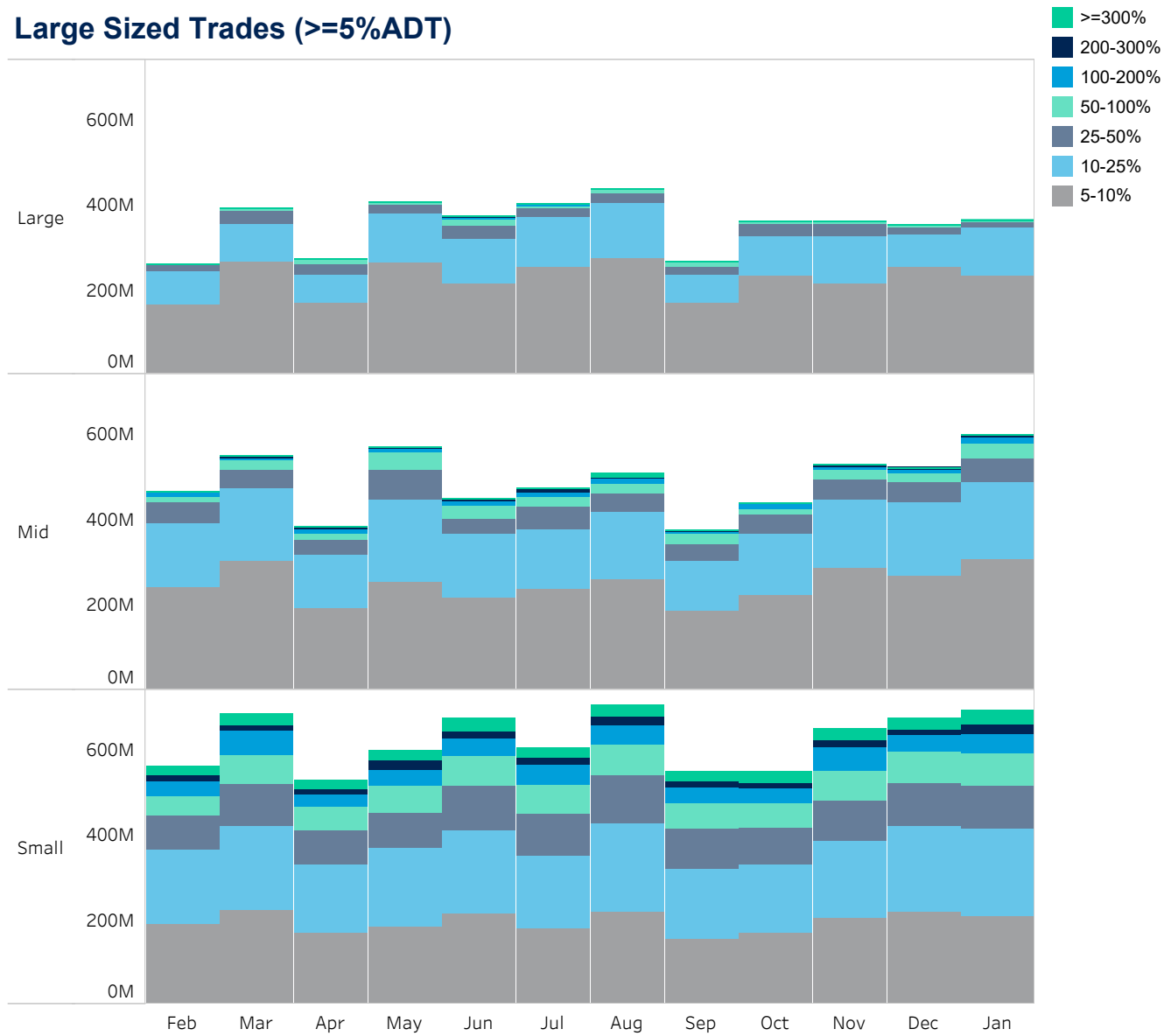
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Hong Kong

Average Daily Turnover (Notional USD)



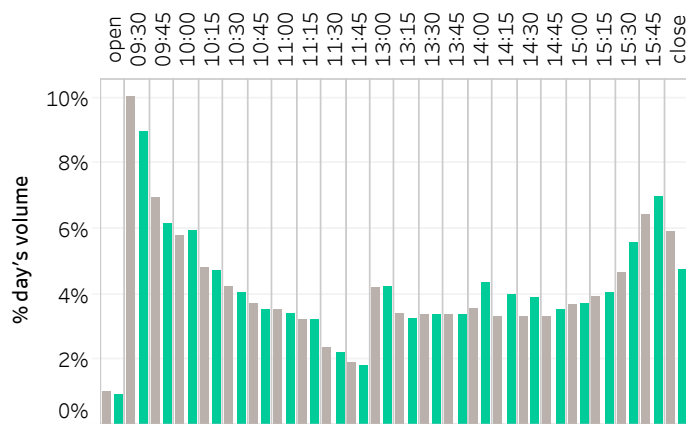
Large Sized Trades (>=5%ADT)



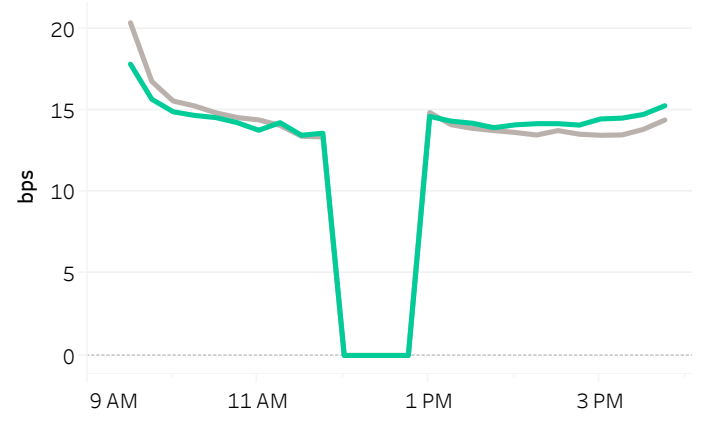
Source data: Virtu Financial

Hong Kong

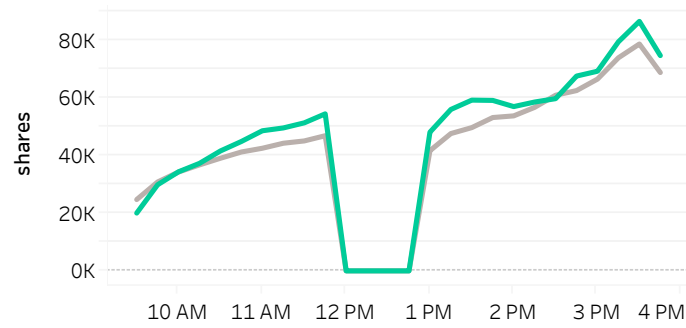
Volume Curve



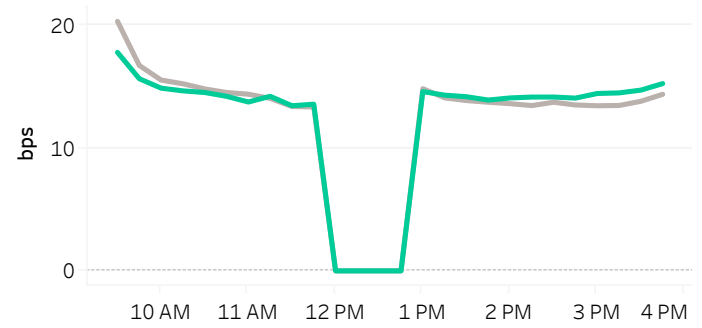
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ January 2024

Spread Bps

	2023						2024					
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
FirstHalfHour	18.0	19.3	19.5	19.5	19.6	18.3	18.7	18.1	18.4	17.1	17.0	16.7
MidDay	12.8	13.7	14.5	14.0	14.6	13.5	14.0	14.4	14.7	13.4	14.2	14.4
LastHalfHour	13.2	14.0	14.1	14.1	14.9	13.8	13.9	14.8	15.0	14.3	15.2	15.1

One Minute Volatility Bps

FirstHalfHour	25.3	28.1	25.8	25.2	24.1	23.6	25.8	23.8	24.3	24.3	24.1	25.7
MidDay	15.9	16.2	16.1	15.7	16.2	15.4	15.8	15.6	16.0	15.2	15.9	16.5
LastHalfHour	16.7	17.3	16.4	16.3	17.2	15.7	16.1	16.5	16.6	16.9	17.6	17.3

Quotesize (shares)

FirstHalfHour	27,296	30,646	31,145	29,974	26,818	25,478	27,693	28,391	27,601	23,593	24,188	25,581
MidDay	44,622	43,572	50,780	47,975	41,143	42,053	45,912	52,298	46,953	46,472	52,781	52,997
LastHalfHour	74,936	77,473	76,329	74,417	64,333	69,285	74,613	78,499	77,442	72,387	70,619	79,360

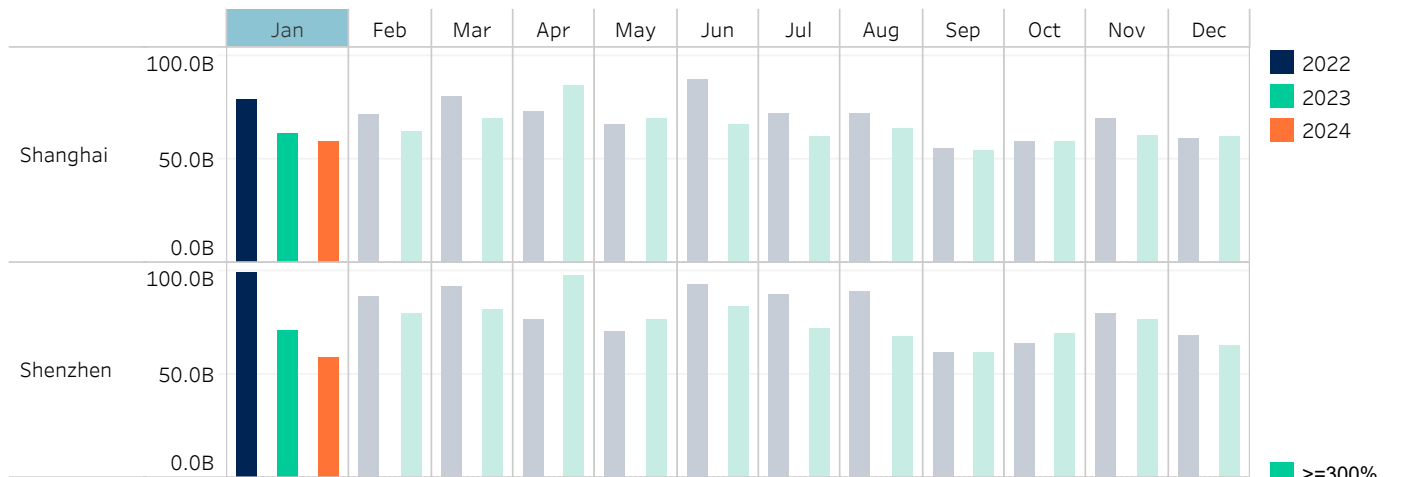
Median used for all metrics

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

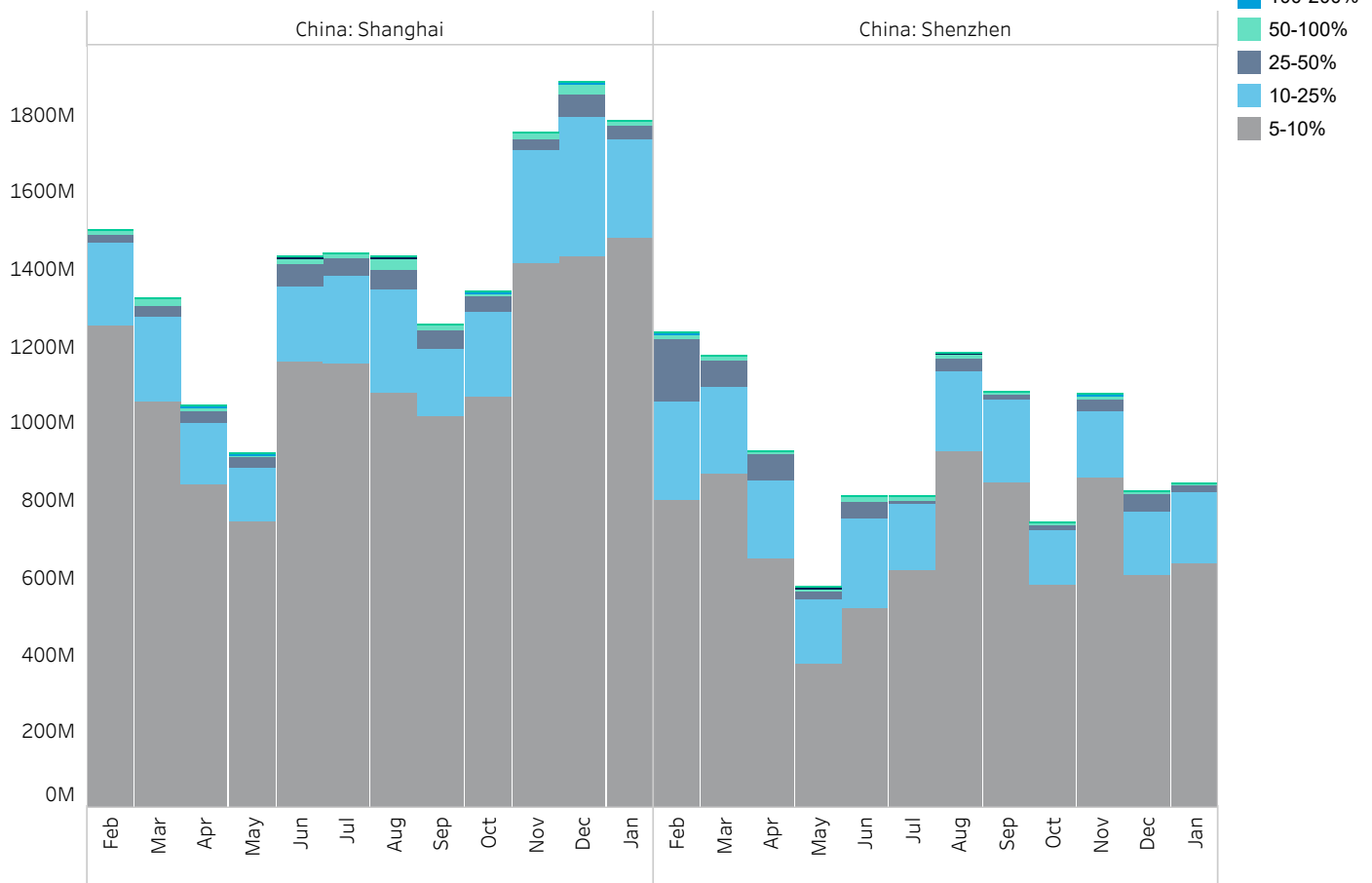
Source data: Virtu Financial

China

Average Daily Turnover (Notional USD)



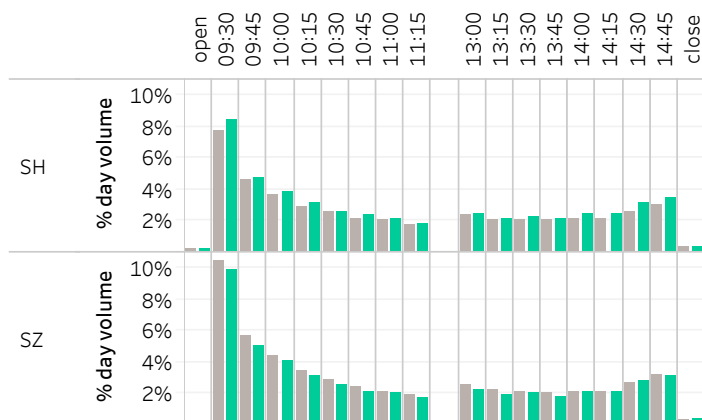
Large Sized Trades (>=5%ADT)



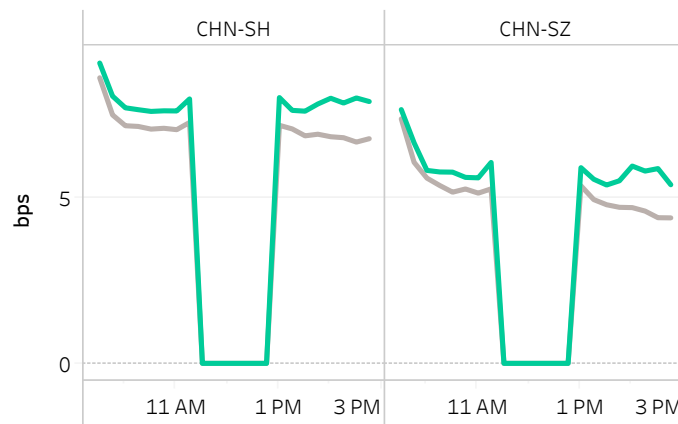
Source data: Virtu Financial

China

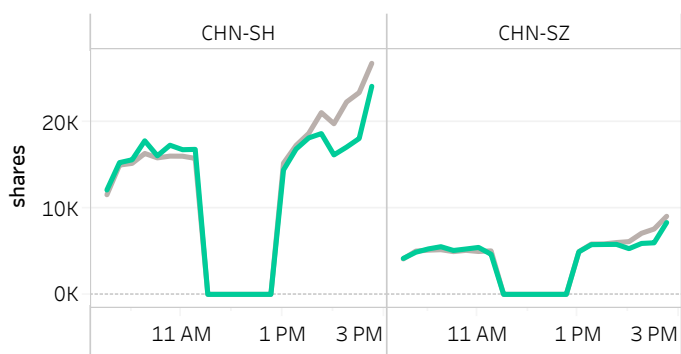
Volume Curve



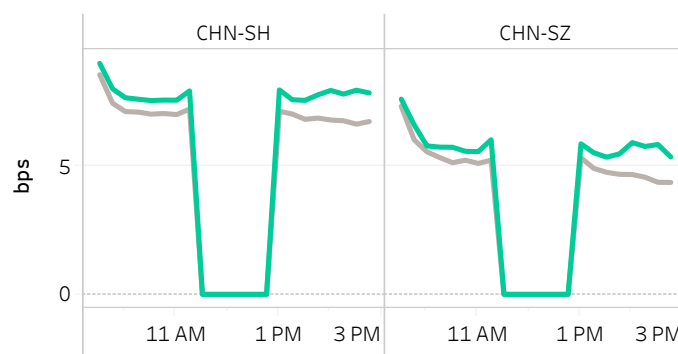
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ January 2024

Spread Bps

	CHN-SH						CHN-SZ					
	Aug	Sep	Oct	Nov	Dec	Jan	Aug	Sep	Oct	Nov	Dec	Jan
FirstHalfHour	8.1	7.6	8.2	7.5	8.1	8.7	6.9	6.3	7.0	6.4	6.6	7.1
MidDay	7.1	6.8	7.1	6.9	7.4	8.0	5.5	5.0	5.4	5.1	5.5	5.9
LastHalfHour	6.9	6.7	7.1	6.8	7.4	8.2	4.8	4.6	5.0	4.7	5.1	5.8

One Minute Volatility Bps

FirstHalfHour	25.6	21.2	23.4	26.8	21.8	27.6	28.2	23.2	25.9	26.4	22.6	30.2
MidDay	13.9	13.0	14.5	15.3	13.1	17.3	13.0	11.3	12.7	13.3	10.9	15.7
LastHalfHour	14.2	12.8	14.7	14.9	13.2	18.1	12.7	10.7	12.1	12.3	10.8	15.7

Quotesize (shares)

FirstHalfHour	12,047	13,236	12,742	16,573	15,099	13,651	4,432	4,575	5,099	5,595	4,563	4,495
MidDay	14,014	16,898	16,209	21,210	18,639	16,308	4,897	5,593	5,775	6,549	5,263	5,280
LastHalfHour	21,342	25,276	23,440	30,704	25,698	20,444	7,434	8,373	8,647	10,309	8,150	7,099

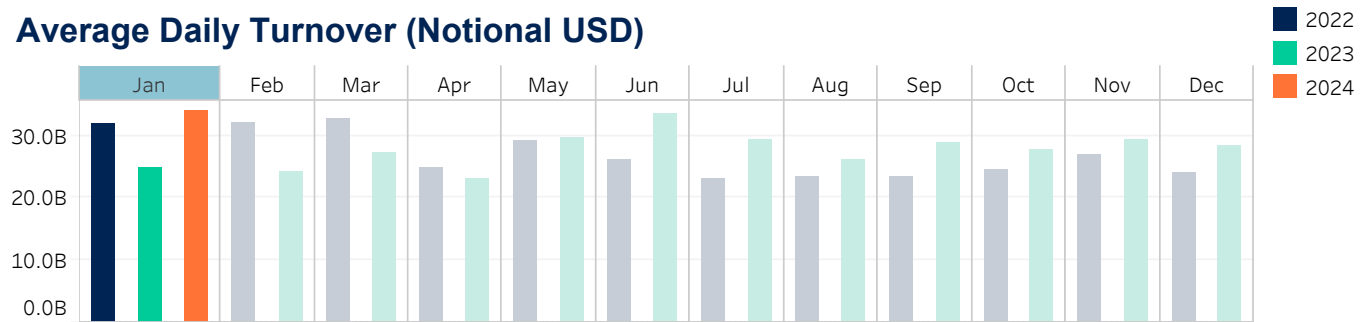
Median used for all metrics

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

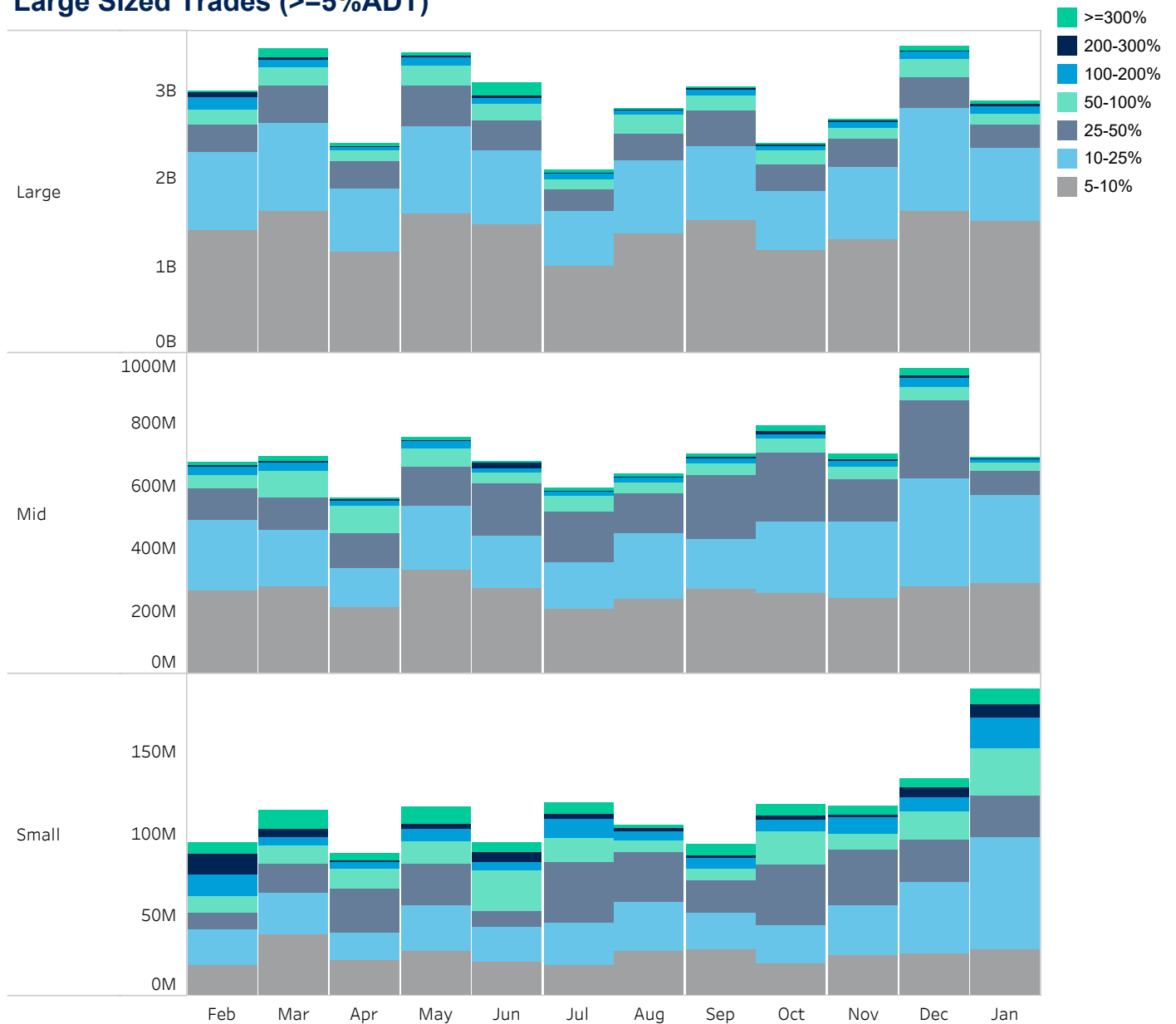
Source data: Virtu Financial

Japan

Average Daily Turnover (Notional USD)



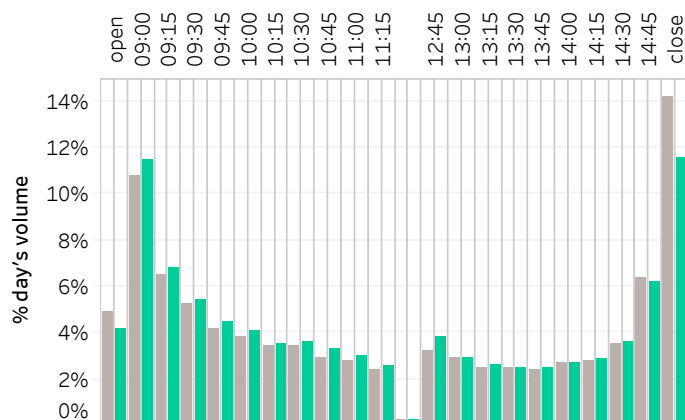
Large Sized Trades (>=5%ADT)



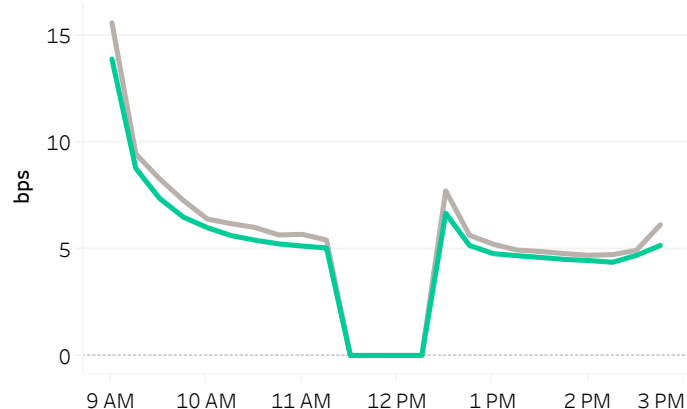
Source data: Virtu Financial

Japan

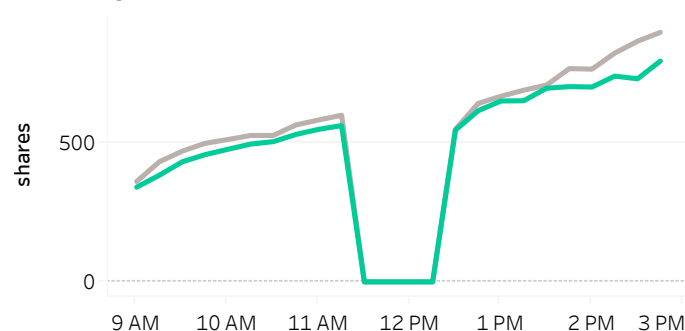
Volume Curve



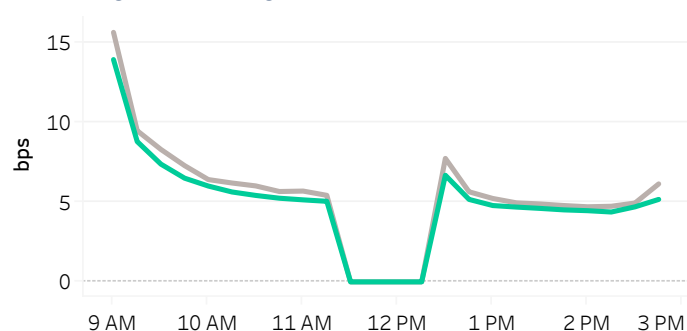
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



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

Spread Bps

	2023						2024					
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
FirstHalfHour	15.3	16.0	15.3	15.5	12.4	11.7	12.2	11.4	13.0	13.5	11.7	11.6
MidDay	8.8	9.1	8.5	8.9	5.7	5.2	5.4	5.2	5.8	6.0	5.3	5.3
LastHalfHour	9.1	9.5	9.2	9.2	5.4	5.0	4.9	5.1	5.7	5.5	5.1	4.9

One Minute Volatility Bps

FirstHalfHour	16.1	16.3	15.4	16.4	14.8	14.2	14.8	14.1	16.0	16.8	14.7	14.9
MidDay	8.3	8.4	7.7	8.5	6.7	5.9	6.1	6.0	7.1	7.3	6.2	6.4
LastHalfHour	9.3	9.4	8.9	9.3	7.1	6.6	6.4	6.8	7.9	7.5	7.0	6.8

Quotesize (shares)

FirstHalfHour	593	556	564	569	427	386	379	388	340	340	357	359
MidDay	1,012	891	951	968	582	569	575	580	494	526	551	555
LastHalfHour	1,620	1,387	1,495	1,578	860	855	882	829	694	779	750	764

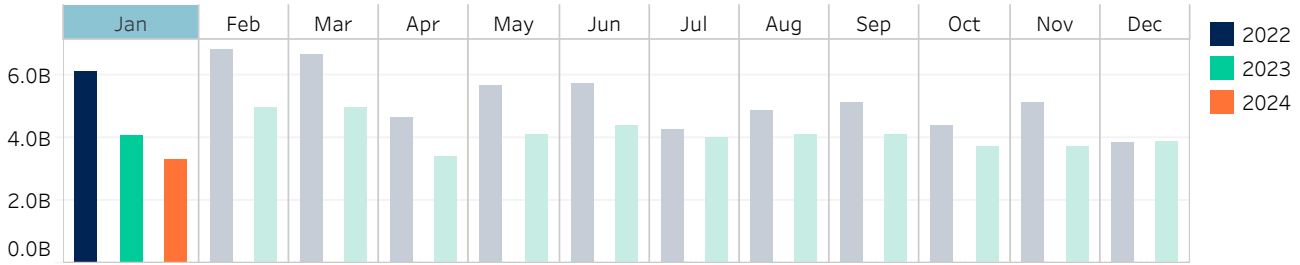
Median used for all metrics

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

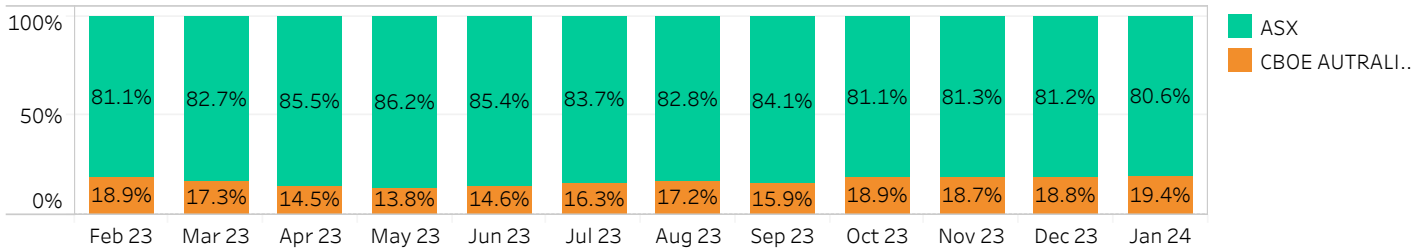
Source data: Virtu Financial

Australia

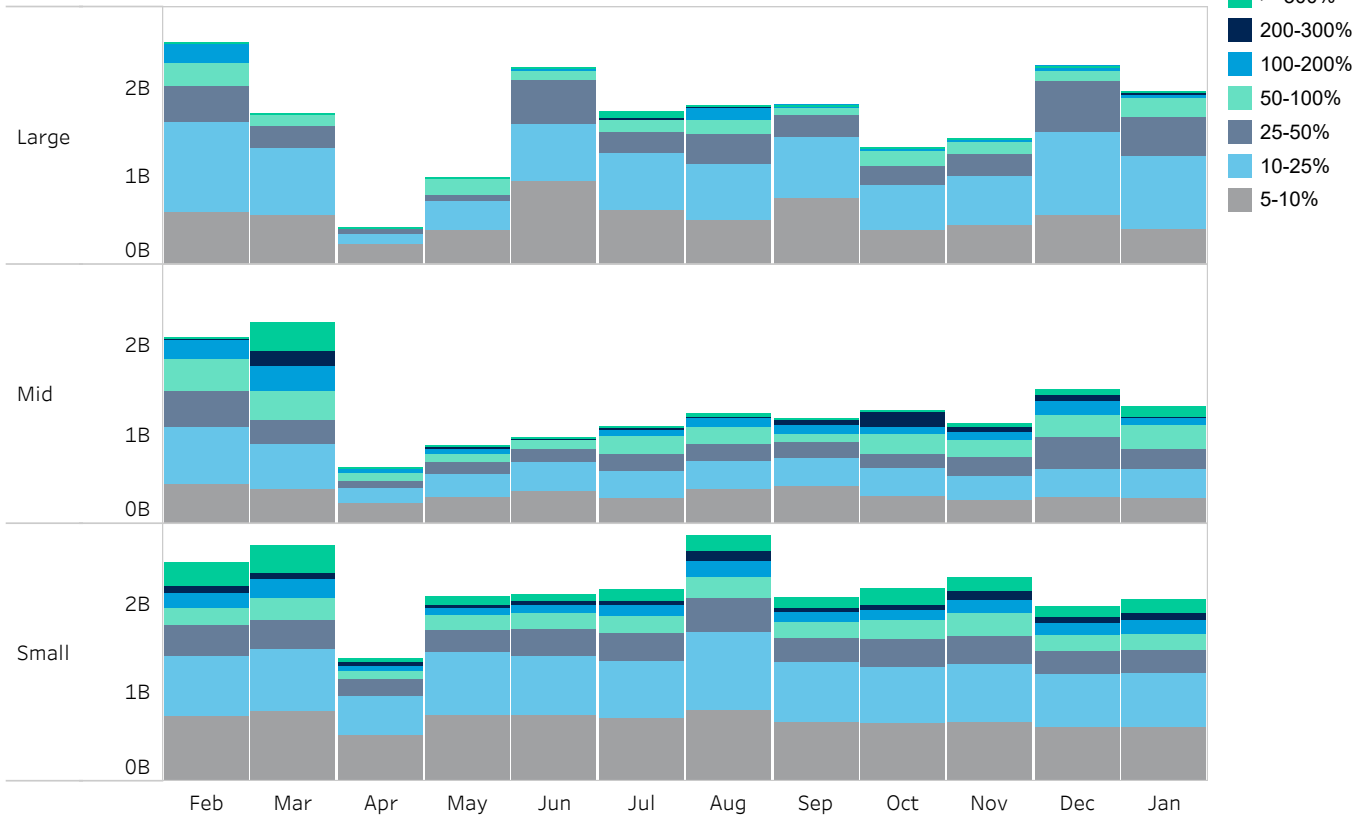
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)



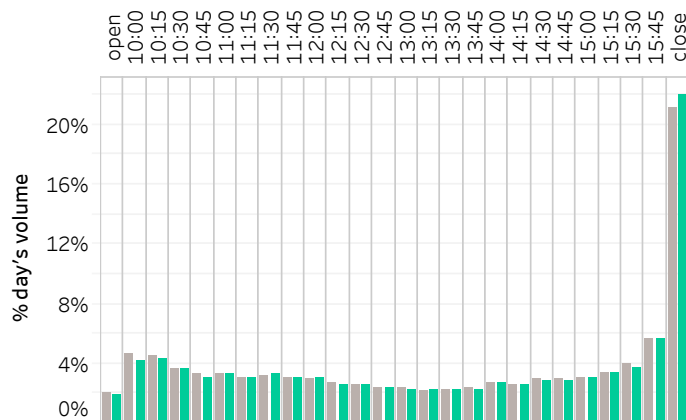
Large Sized Trades (>=5%ADT)



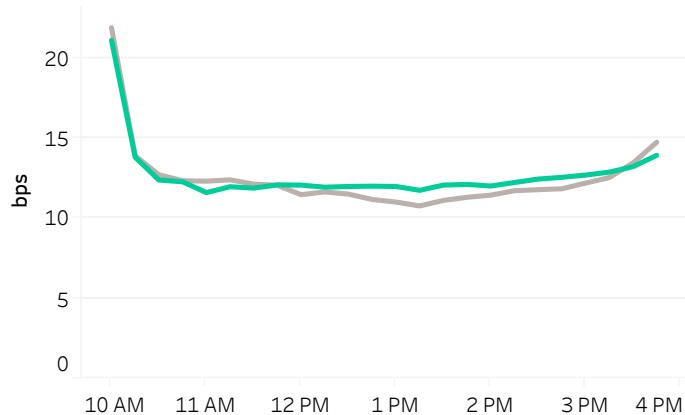
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Australia

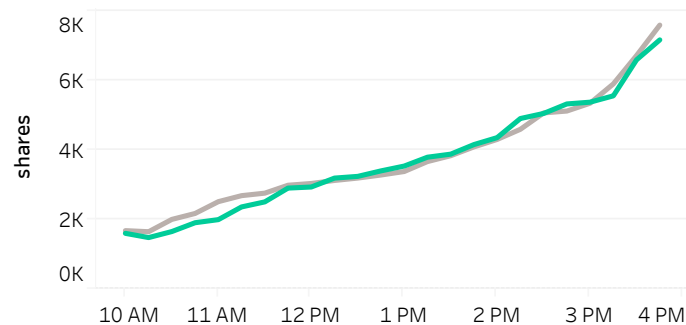
Volume Curve



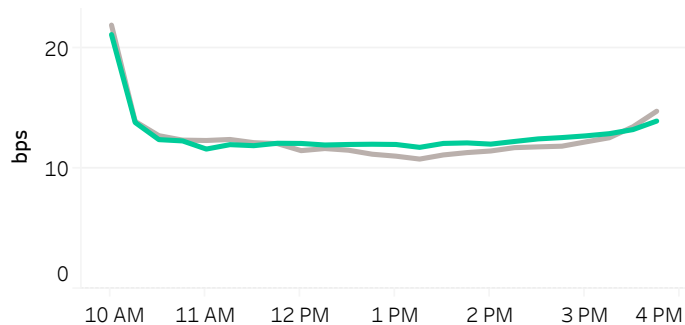
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg (Brown line), January 2024 (Teal line)

Spread Bps

	2023						2024					
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
FirstHalfHour	16.8	17.4	17.4	17.0	16.6	16.6	16.6	17.0	18.7	18.1	17.6	16.7
MidDay	11.6	12.4	12.1	11.6	11.8	11.3	11.1	12.3	13.1	13.1	12.6	12.0
LastHalfHour	13.8	14.3	14.3	13.7	14.0	13.9	14.1	14.7	15.4	15.1	14.1	13.7

One Minute Volatility Bps

FirstHalfHour	21.3	21.7	20.6	19.1	18.7	18.0	18.9	17.9	19.4	18.7	18.3	16.7
MidDay	10.3	10.7	9.5	9.2	9.8	9.5	9.7	9.6	10.6	10.8	10.1	9.5
LastHalfHour	12.5	13.2	12.4	11.9	12.5	11.9	12.4	12.7	13.5	13.3	12.5	11.7

Quotesize (shares)

FirstHalfHour	1,640	1,864	2,108	1,897	1,901	1,672	1,703	1,756	1,601	1,443	1,515	1,528
MidDay	3,260	3,759	3,968	3,313	3,860	3,520	3,310	3,720	3,289	3,147	3,258	3,388
LastHalfHour	7,185	8,215	8,141	7,163	8,042	7,173	7,405	7,388	7,156	6,633	6,873	6,851

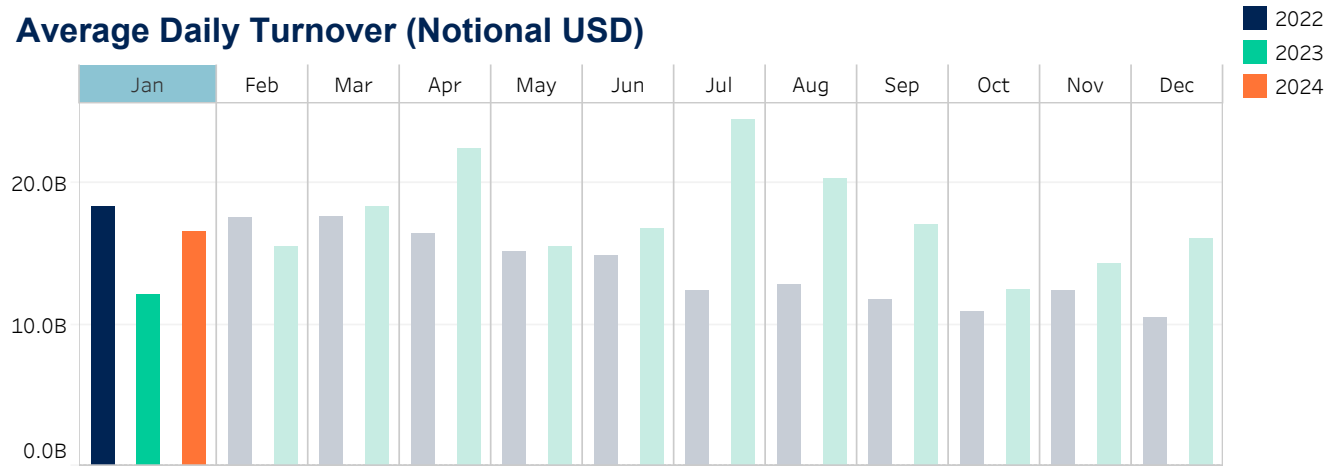
Median used for all metrics

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

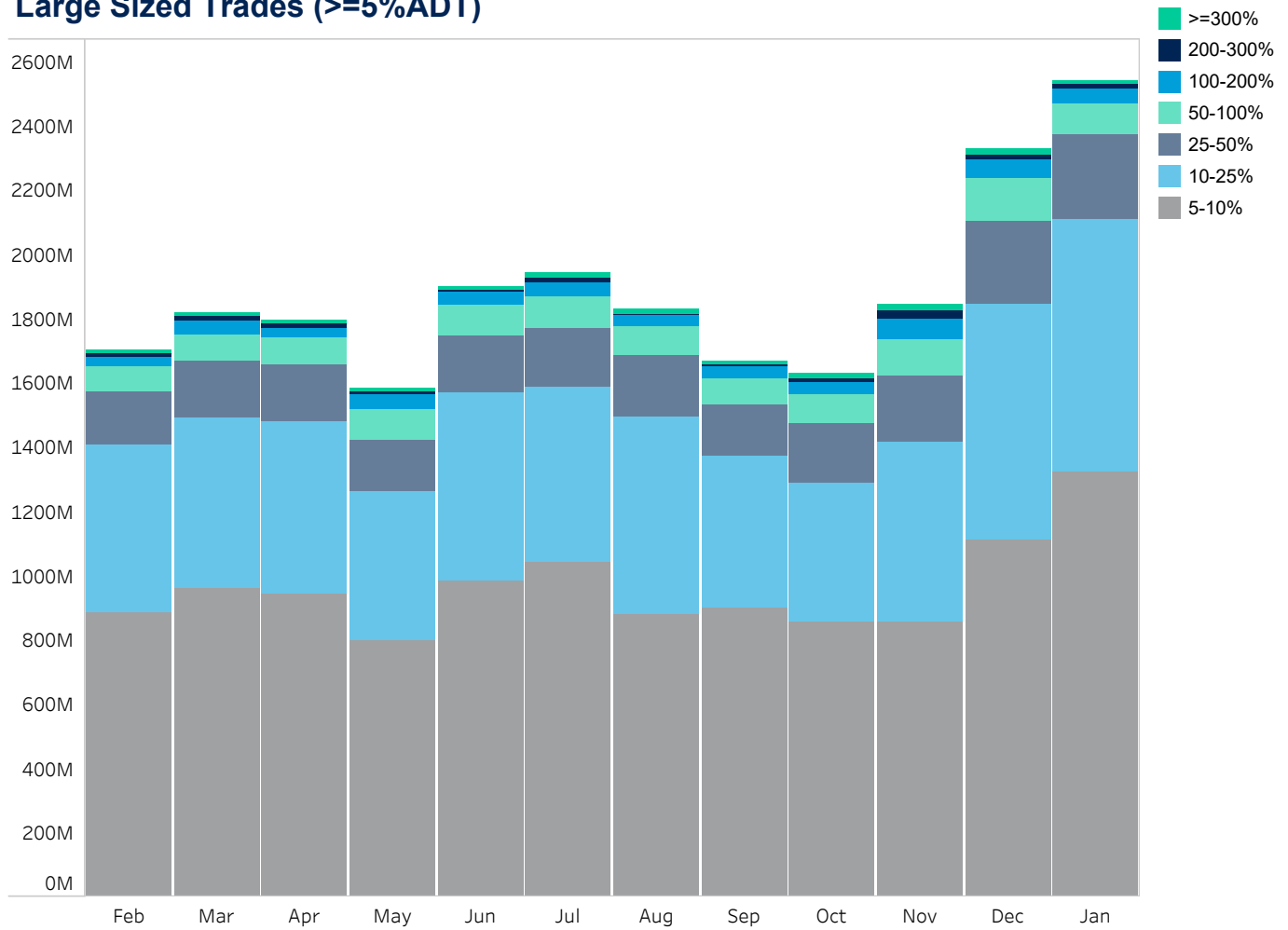
Source data: Virtu Financial

South Korea

Average Daily Turnover (Notional USD)



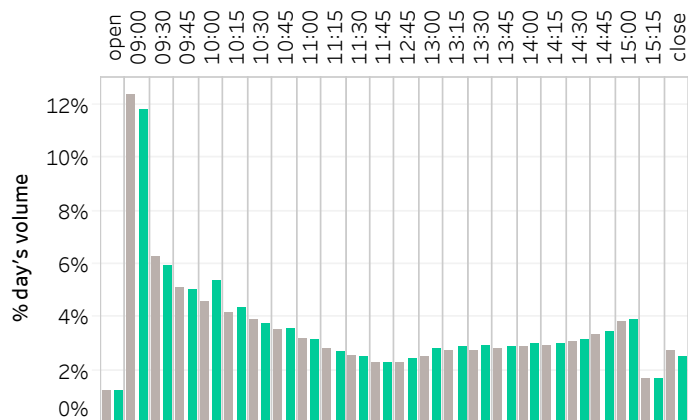
Large Sized Trades (>=5%ADT)



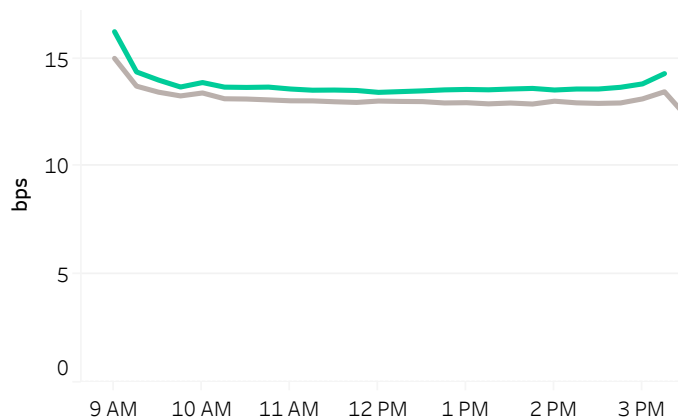
Source data: Virtu Financial

Korea

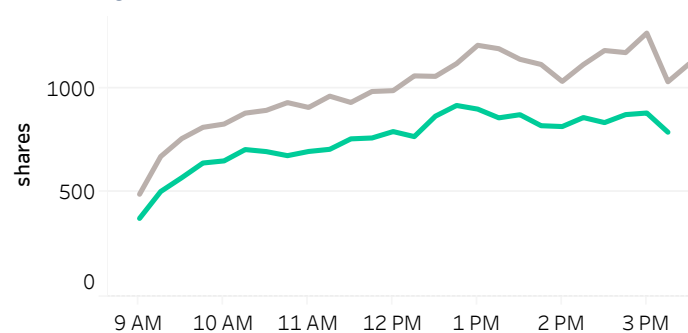
Volume Curve



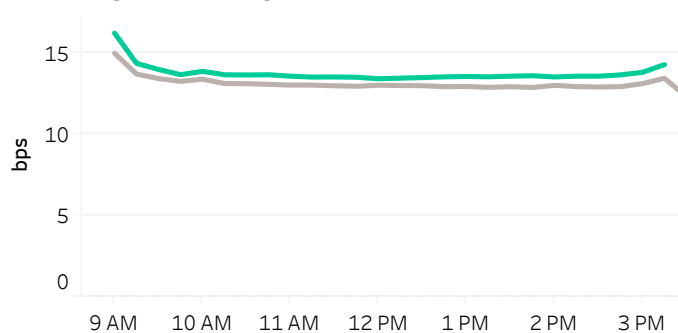
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg (Brown line), January 2024 (Green line)

Spread Bps

	2023					2024						
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
FirstHalfHour	14.7	14.7	14.3	14.0	13.7	14.3	14.2	13.9	14.5	14.5	14.3	15.1
MidDay	13.5	13.4	12.9	12.9	12.9	13.2	12.8	12.5	12.8	13.1	12.8	13.6
LastHalfHour	13.7	13.5	13.1	13.0	13.0	13.3	12.8	12.6	13.2	13.4	13.3	13.8

One Minute Volatility Bps

FirstHalfHour	23.6	24.9	25.6	22.7	21.5	27.1	26.7	23.3	27.5	25.1	22.2	25.7
MidDay	14.9	15.0	14.8	14.2	14.0	14.9	14.3	14.0	14.6	15.1	14.5	15.7
LastHalfHour	15.6	16.0	15.9	14.9	14.8	16.2	15.2	15.3	16.1	14.9	16.3	17.1

Quotesize (shares)

FirstHalfHour	655	595	579	580	634	563	491	491	444	458	536	446
MidDay	1,188	1,025	1,014	1,166	1,249	1,024	875	923	808	760	895	807
LastHalfHour	1,447	1,390	1,189	1,277	1,444	1,164	1,108	1,066	912	921	1,010	871

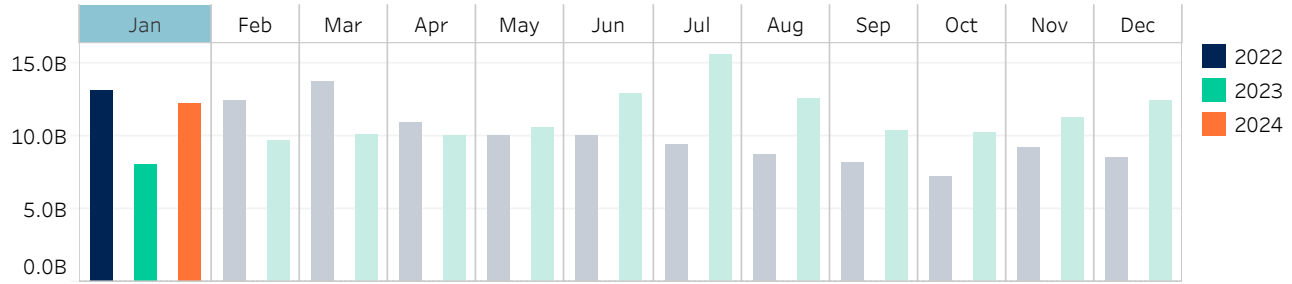
Median used for all metrics

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

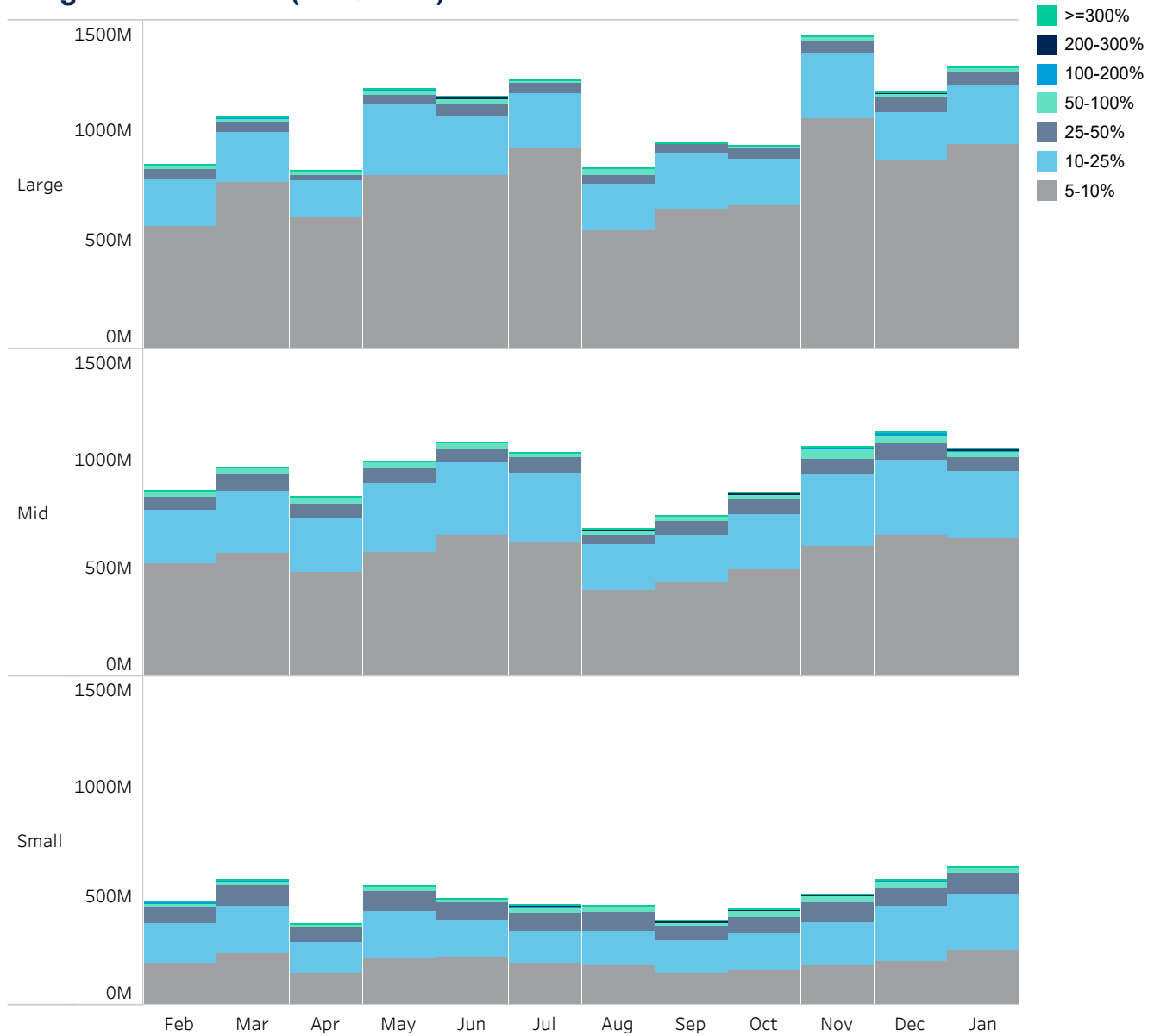
Source data: Virtu Financial

Taiwan

Average Daily Turnover (Notional USD)



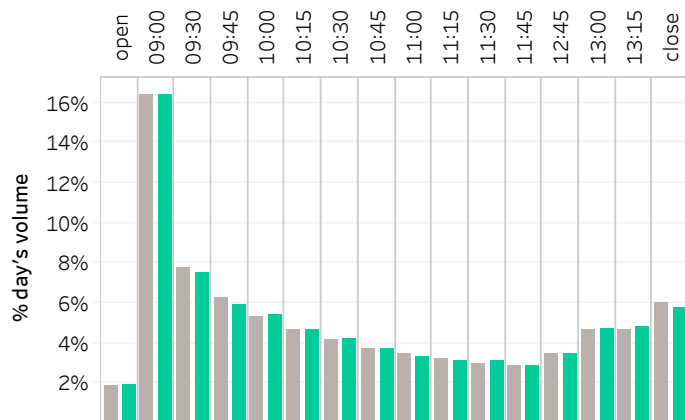
Large Sized Trades (>=5%ADT)



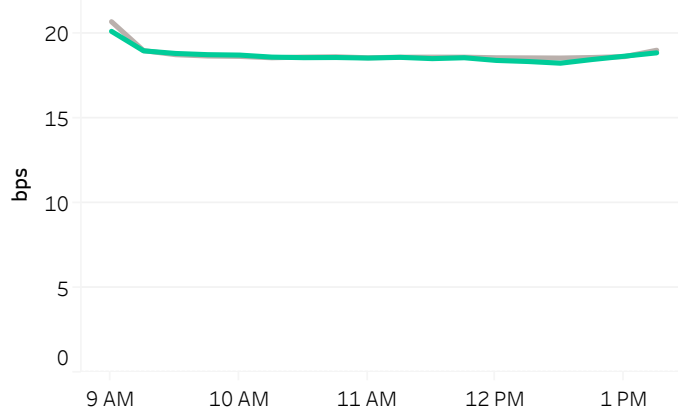
Source data: Virtu Financial

Taiwan

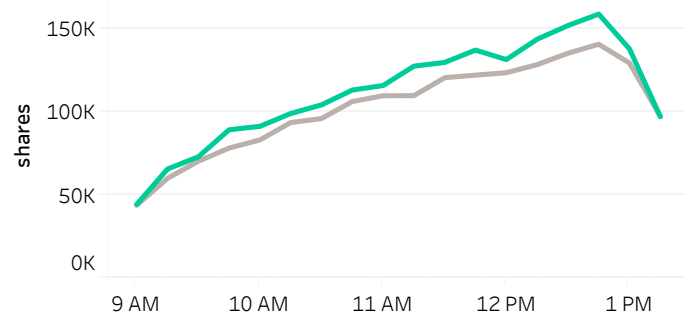
Volume Curve



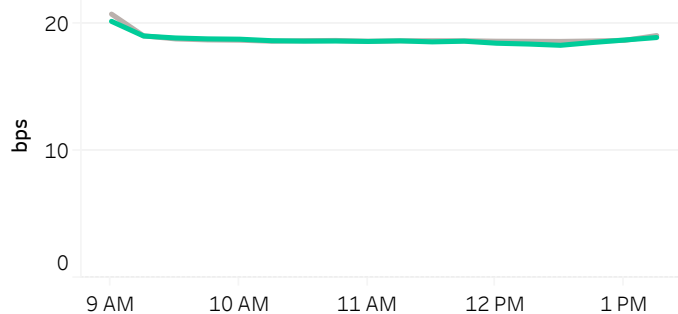
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg (grey line) January 2024 (green line)

Spread Bps

	2023												2024
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
FirstHalfHour	20.6	20.1	19.9	19.8	19.3	19.6	20.5	19.9	20.3	19.6	19.5	19.6	
MidDay	18.9	19.0	18.9	18.2	17.8	18.0	18.8	18.8	19.0	18.2	18.6	18.6	
LastHalfHour	18.9	19.1	19.0	18.3	18.1	18.3	18.8	19.0	19.1	18.6	18.7	18.8	

One Minute Volatility Bps

FirstHalfHour	31.3	31.6	30.3	31.3	31.2	34.5	37.1	32.6	33.3	29.9	30.6	32.8
MidDay	28.9	29.1	28.8	28.1	28.4	31.5	36.4	29.8	31.1	26.4	27.8	29.2
LastHalfHour	28.9	29.6	29.2	28.3	28.9	32.6	34.4	29.9	31.5	27.6	28.1	30.3

Quotesize (shares)

FirstHalfHour	57,971	61,802	53,240	60,150	57,819	51,257	44,628	44,984	46,915	50,161	52,263	57,046
MidDay	117,559	138,448	125,681	133,760	139,513	105,466	95,368	103,352	109,280	111,917	104,185	124,365
LastHalfHour	116,979	124,571	121,314	127,420	122,742	102,051	100,542	105,527	109,997	124,934	124,186	118,507

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

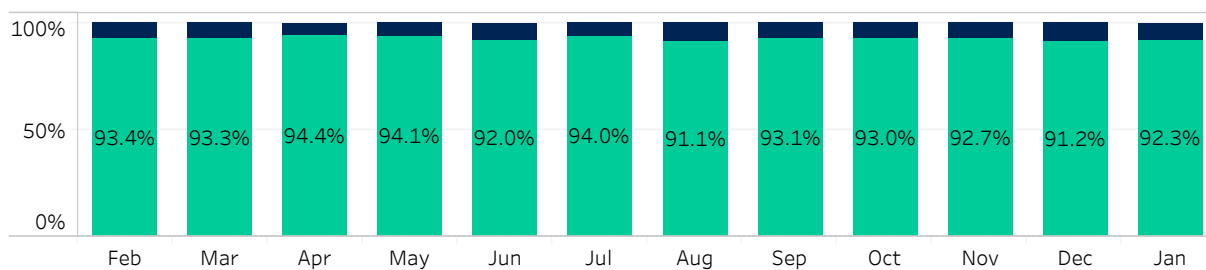
Source data: Virtu Financial

India

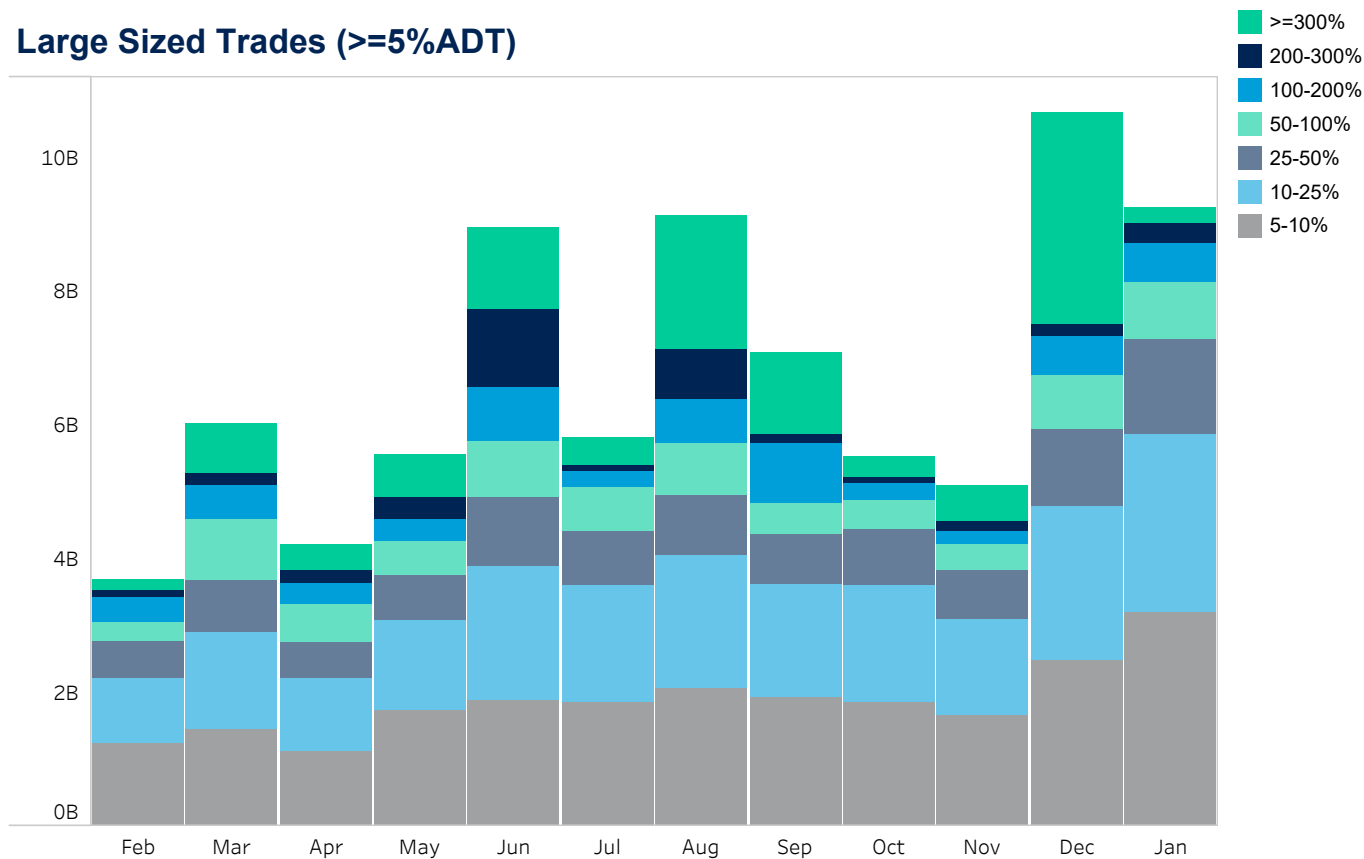
Average Daily Turnover (Notional USD)



Venue Market Share (Notional USD)

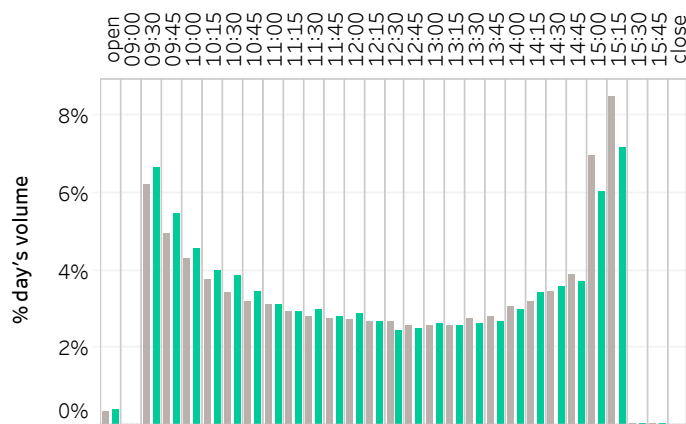


Large Sized Trades (>=5%ADT)

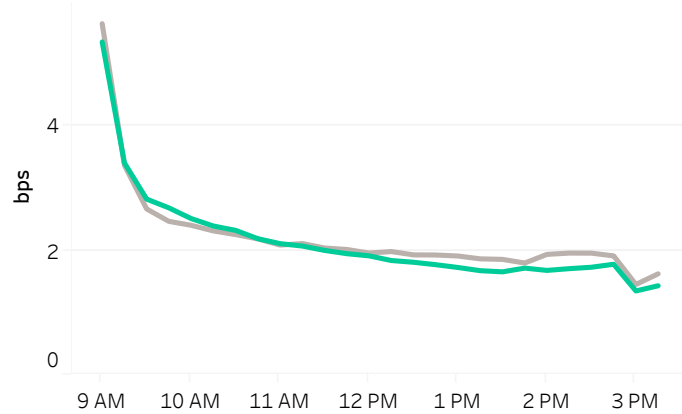


India

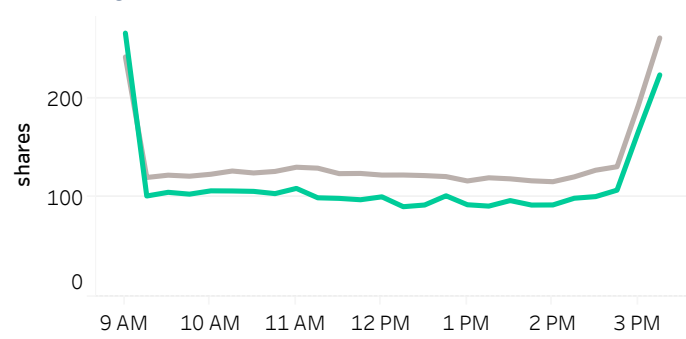
Volume Curve



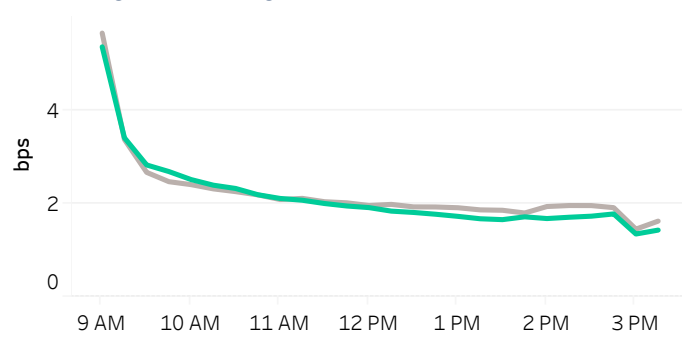
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg January 2024

Spread Bps

	2023												2024
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
FirstHalfHour	3.7	3.4	3.4	3.3	3.1	3.5	3.5	3.5	3.4	3.2	3.4	3.5	
MidDay	2.2	2.1	2.1	2.0	1.9	1.9	1.9	2.0	1.8	2.0	1.9	1.9	
LastHalfHour	1.8	1.7	1.7	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.5	1.5	

One Minute Volatility Bps

FirstHalfHour	17.6	16.2	16.3	19.7	19.1	17.2	16.6	15.2	17.3	14.7	17.9	19.6
MidDay	7.7	7.4	7.6	8.4	8.2	7.1	7.0	6.8	7.6	7.1	8.0	8.7
LastHalfHour	9.9	9.6	9.6	10.3	10.5	9.1	9.2	9.1	9.5	8.7	10.5	10.8

Quotesize (shares)

FirstHalfHour	119.8	123.5	133.9	142.2	143.1	131.7	114.8	117.2	112.5	108.1	118.4	102.2
MidDay	124.1	124.2	143.1	151.0	151.7	124.1	118.6	120.7	108.5	116.7	118.3	99.1
LastHalfHour	249.5	253.0	256.4	262.0	268.0	231.3	206.0	230.8	197.4	229.1	196.5	182.0

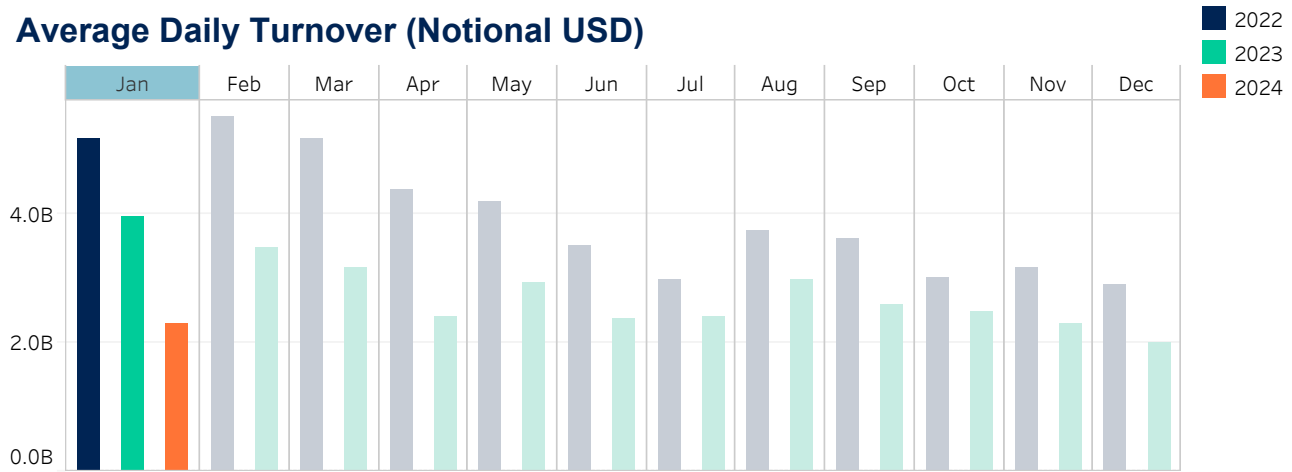
Median used for all metrics

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

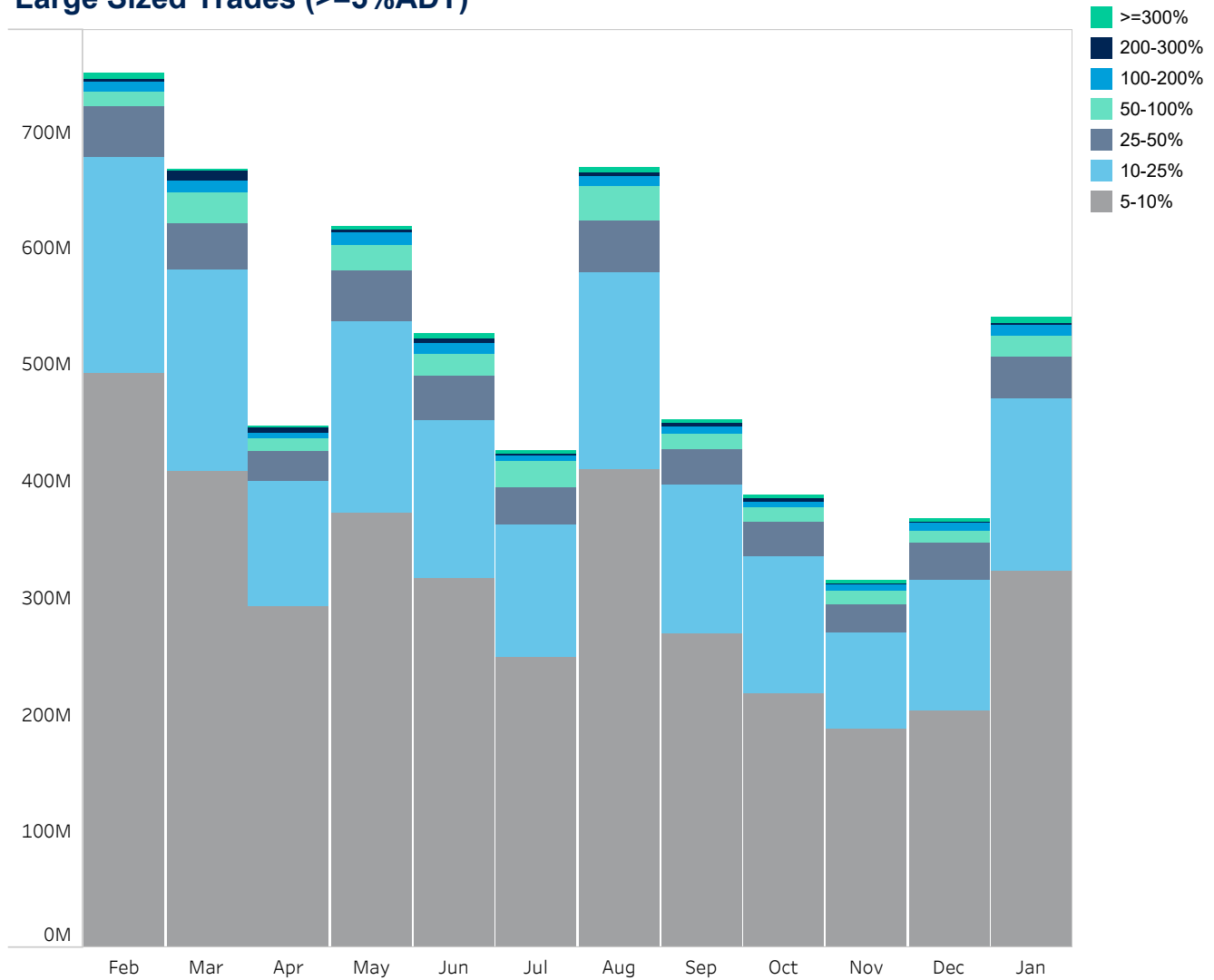
Source data: Virtu Financial

Thailand

Average Daily Turnover (Notional USD)



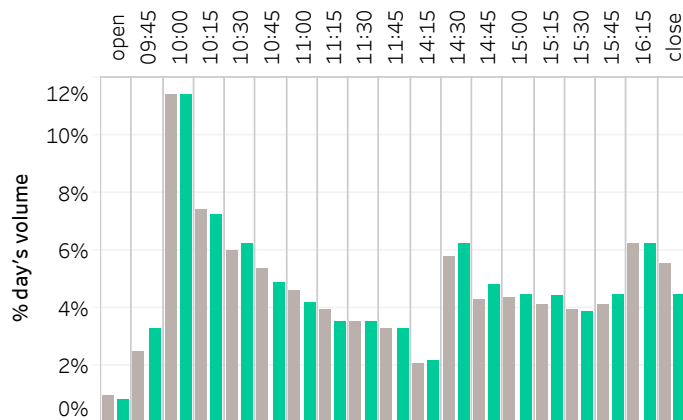
Large Sized Trades (>=5%ADT)



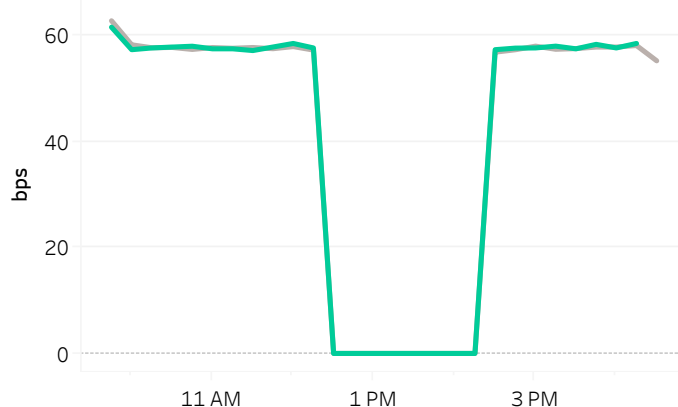
Source data: Virtu Financial

Thailand

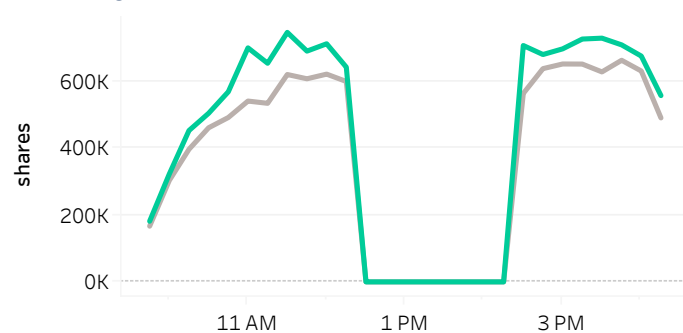
Volume Curve



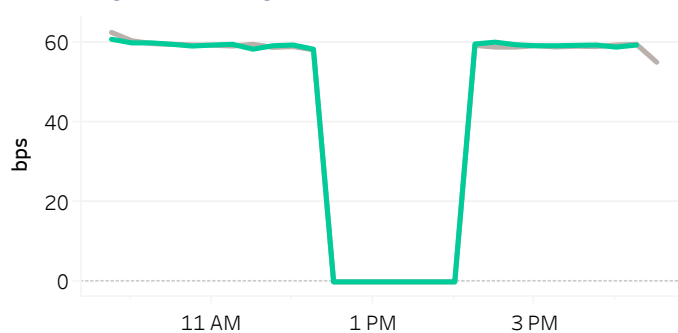
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg January 2024

Spread Bps

	2023						2024					
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
FirstHalfHour	56.4	59.5	59.2	65.1	65.6	61.9	62.3	61.9	64.3	62.7	64.0	61.2
MidDay	54.1	56.0	55.8	58.4	59.3	56.7	56.3	58.7	59.3	58.3	59.2	57.6
LastHalfHour	54.8	56.7	56.0	58.7	59.3	58.0	57.0	59.0	59.3	59.0	51.4	58.3

One Minute Volatility Bps

FirstHalfHour	61.9	67.8	60.8	63.9	63.5	60.4	61.7	61.2	64.3	63.5	63.8	61.2
MidDay	55.4	57.6	57.0	60.4	60.8	58.7	58.3	60.1	60.4	60.4	60.4	59.3
LastHalfHour	56.0	58.3	57.6	60.1	60.8	59.0	58.7	59.0	60.8	60.4	51.4	59.3

Quotesize (shares)

FirstHalfHour	236,082	219,491	200,957	156,753	157,282	170,264	205,336	202,658	146,123	160,913	162,686	190,460
MidDay	737,967	634,271	624,930	536,008	510,989	542,854	699,283	749,767	485,941	528,048	602,762	686,060
LastHalfHour	679,491	552,716	570,432	472,021	490,710	518,167	619,275	626,196	465,624	501,806	371,650	597,307

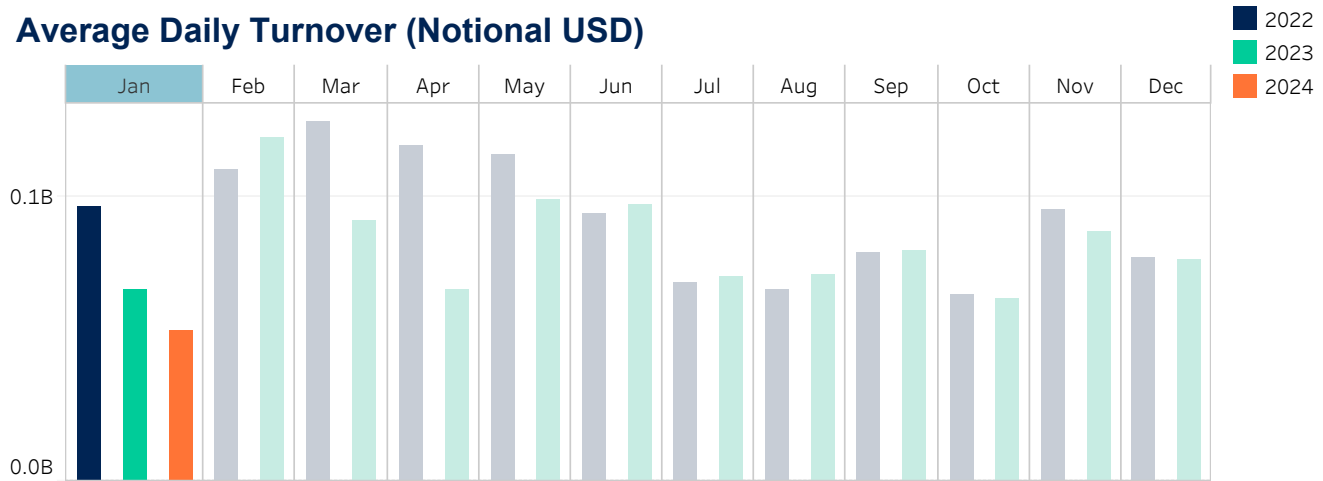
Median used for all metrics

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

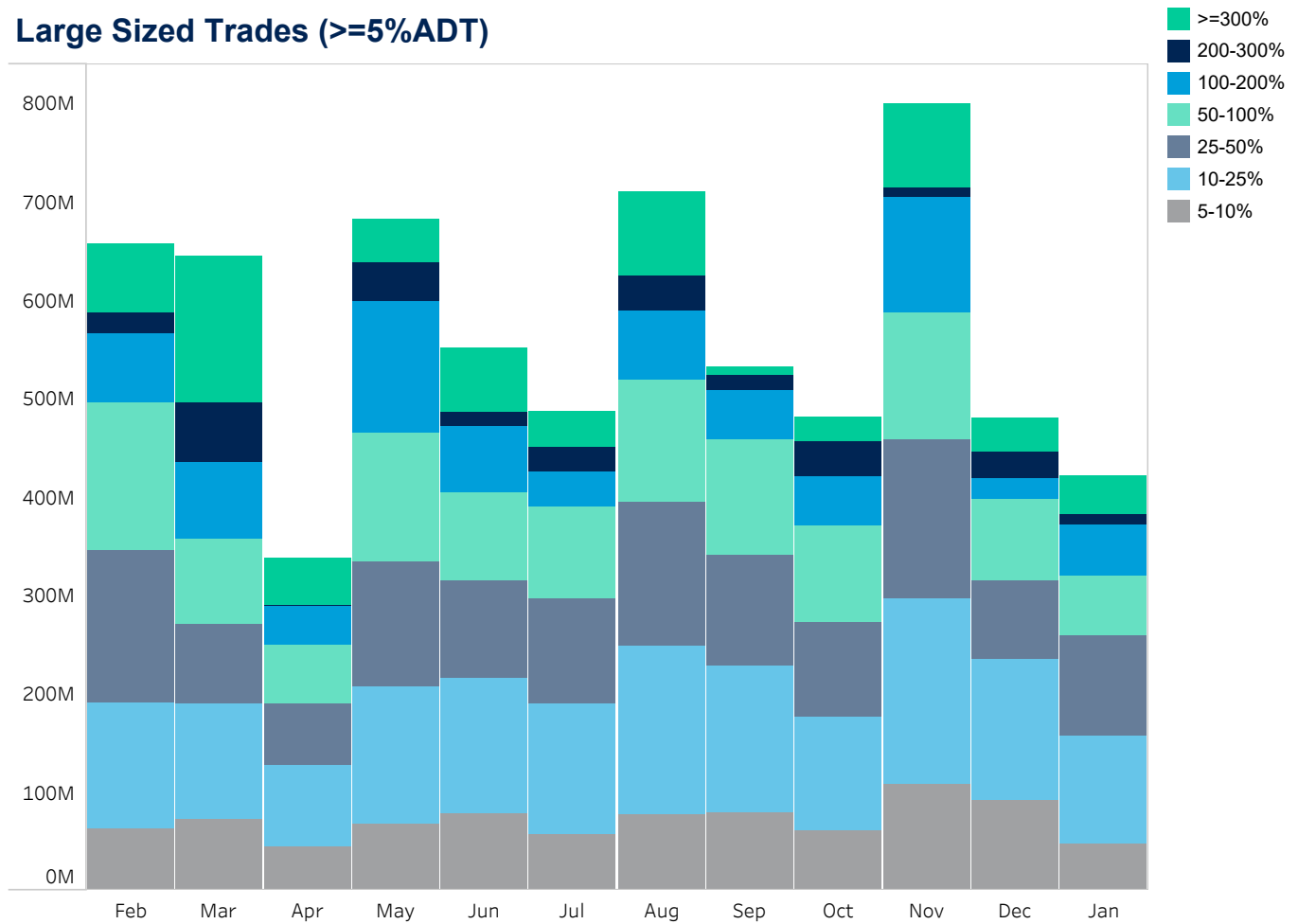
Source data: Virtu Financial

New Zealand

Average Daily Turnover (Notional USD)



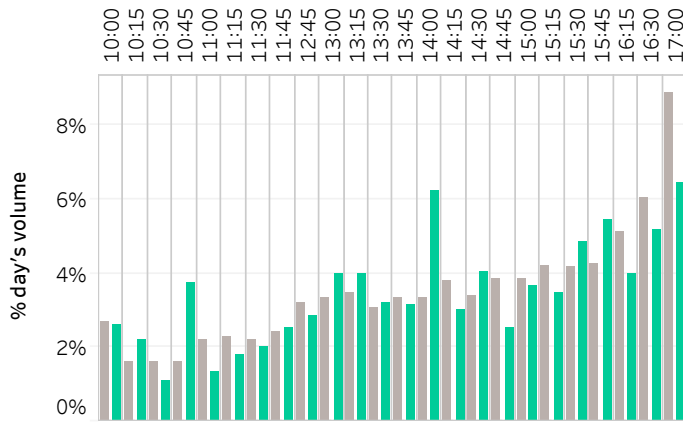
Large Sized Trades (>=5%ADT)



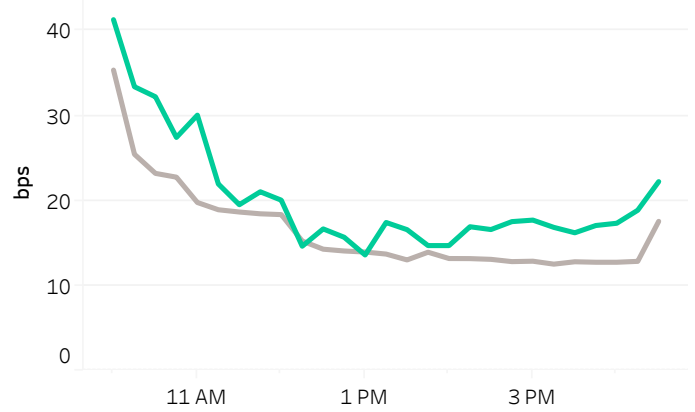
Source data: Virtu Financial

New Zealand

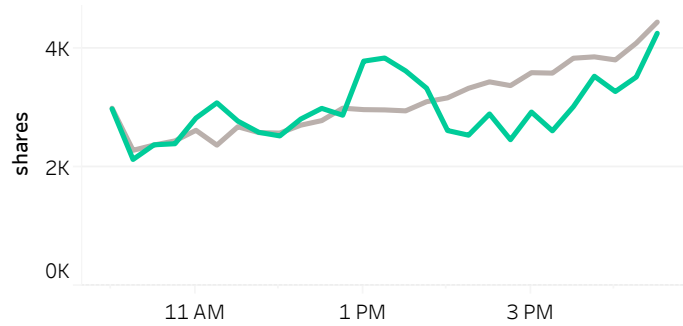
Volume Curve



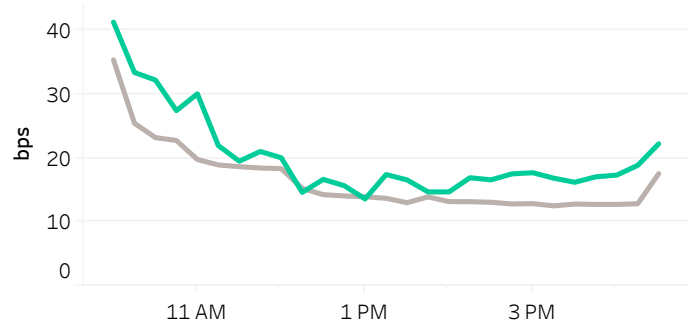
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



■ Rolling 12 Months Avg ■ January 2024

Spread Bps

	2023						2024					
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
FirstHalfHour	36.2	32.4	23.3	33.5	23.1	27.3	26.0	30.3	28.2	28.9	35.4	37.0
MidDay	14.2	13.5	13.8	13.7	13.3	13.5	14.5	12.4	14.7	14.3	16.7	17.1
LastHalfHour	19.1	17.5	18.4	17.4	17.7	17.9	18.0	16.3	19.7	18.1	18.6	22.2

One Minute Volatility Bps

FirstHalfHour	20.9	23.1	19.0	18.6	15.9	18.4	19.0	20.9	23.1	19.9	19.4	29.1
MidDay	15.1	13.8	15.2	13.3	13.3	12.8	13.7	12.5	15.0	14.6	16.4	17.2
LastHalfHour	23.1	19.7	19.0	18.2	18.5	18.3	18.4	19.4	20.8	19.6	19.3	22.5

Quotesize (shares)

FirstHalfHour	2,572	2,470	2,669	2,496	2,658	2,980	2,981	2,681	3,043	2,397	2,093	2,584
LastHalfHour	6,137	4,537	5,071	4,691	5,091	4,326	4,567	3,988	4,171	4,335	4,150	4,284
MidDay	3,634	3,092	3,102	3,512	3,372	3,016	3,363	3,098	3,456	2,624	2,939	2,784

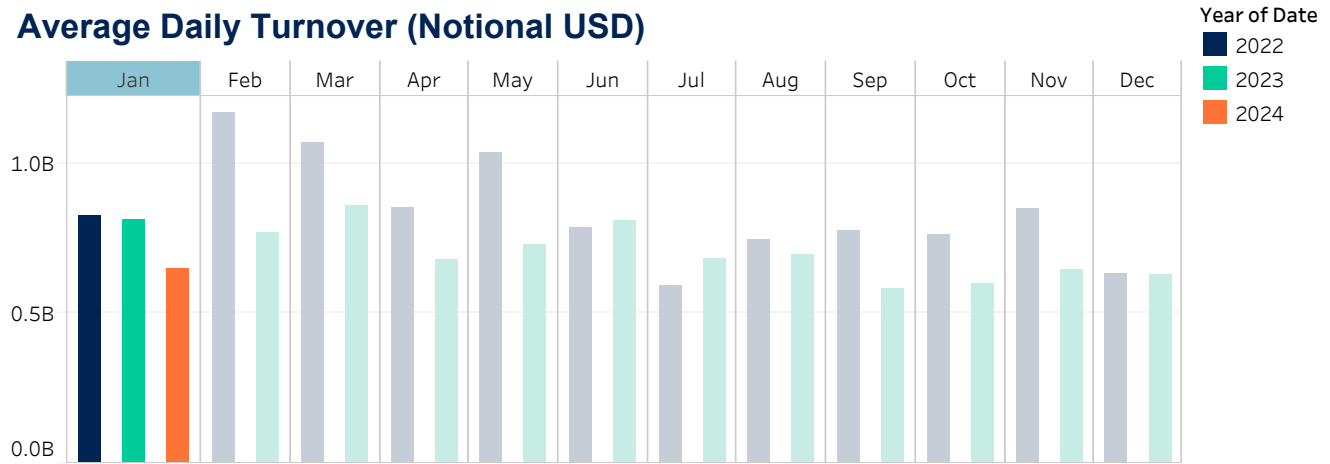
Median used for all metrics

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

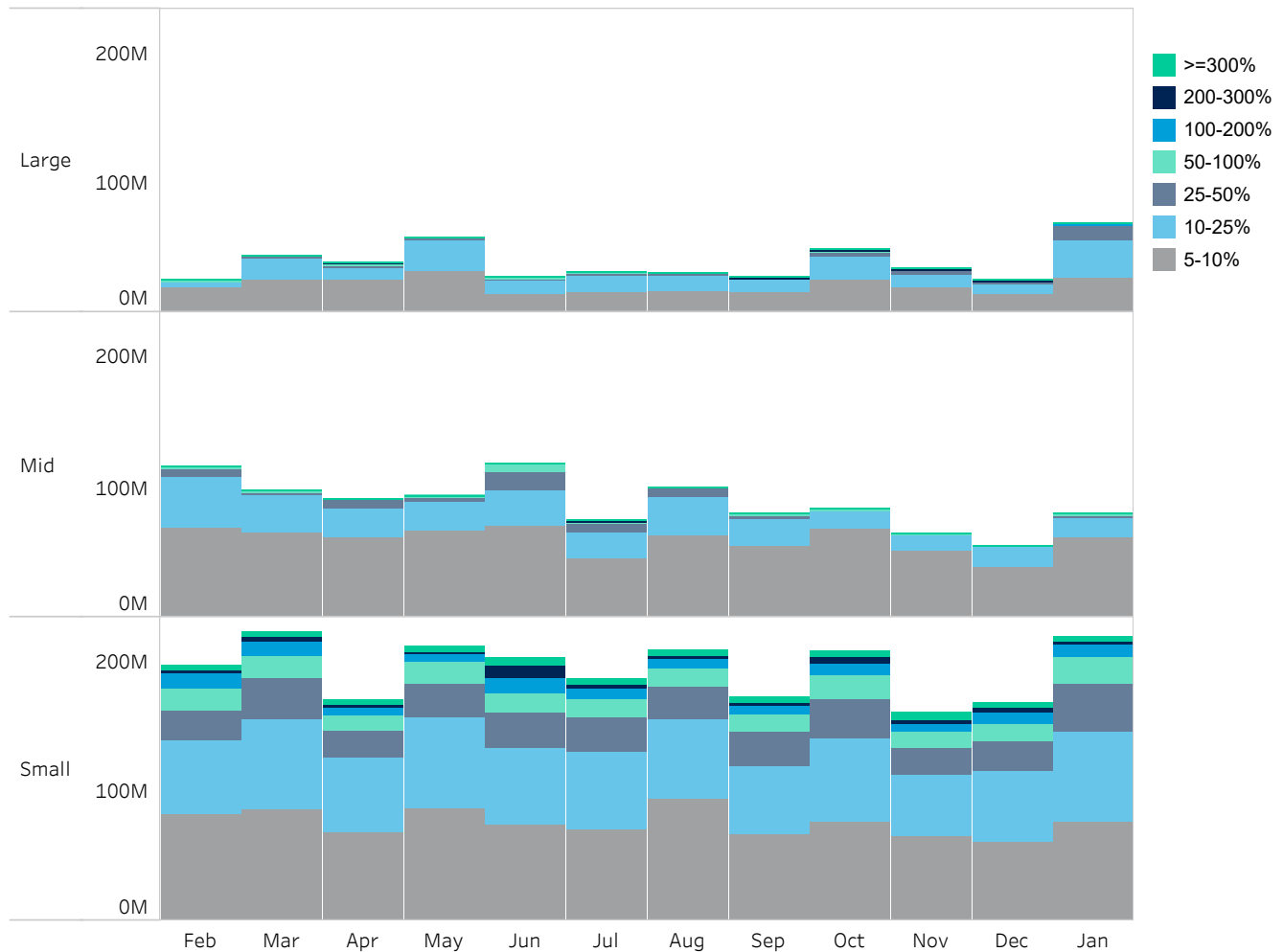
Source data: Virtu Financial

Singapore

Average Daily Turnover (Notional USD)



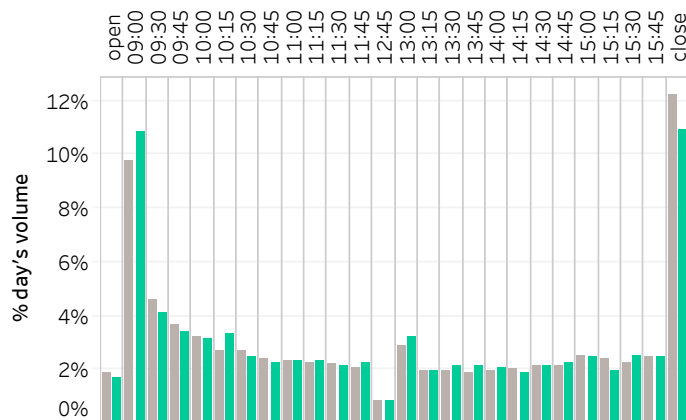
Large Sized Trades (>=5%ADT)



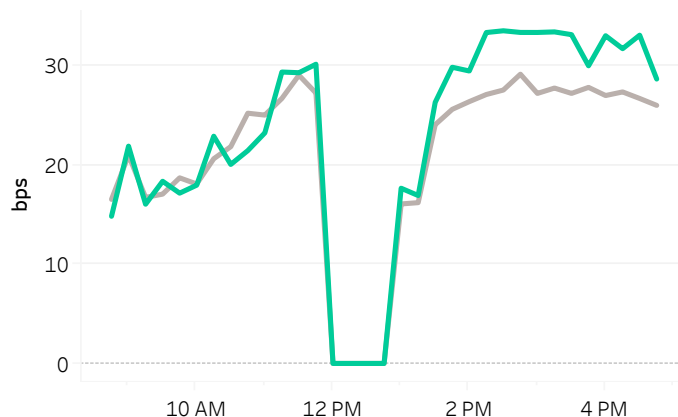
Source data: Virtu Financial

Singapore

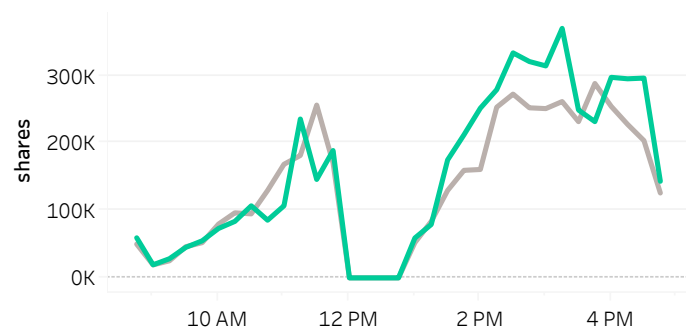
Volume Curve



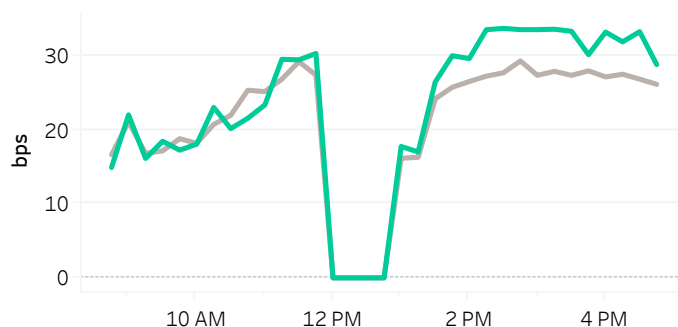
Intraday Spread (bps)



Intraday Quotesize (Shares)



Intraday Volatility (bps)



Rolling 12 Months Avg January 2024

Spread Bps

	2023					2024						
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
FirstHalfHour	14.5	16.6	14.2	16.4	16.6	14.6	19.1	16.2	15.8	16.8	15.1	15.0
MidDay	25.0	27.2	27.0	27.0	24.5	17.5	27.1	26.7	28.5	26.5	28.9	26.8
LastHalfHour	25.1	25.3	26.8	26.3	25.8	26.4	26.3	26.9	29.5	27.1	28.0	29.7

One Minute Volatility Bps

FirstHalfHour	43.5	34.5	34.4	35.7	41.7	41.7	51.4	31.3	50.6	52.8	40.9	41.6
MidDay	25.4	28.4	27.6	27.5	26.9	26.3	27.6	27.0	31.3	27.3	29.1	28.8
LastHalfHour	25.5	27.6	27.1	26.8	27.4	27.1	28.0	27.4	32.6	27.9	29.4	32.6

Quotesize (shares)

FirstHalfHour	49,035	126,098	48,869	57,725	86,605	39,923	30,361	36,050	50,518	72,786	53,345	55,164
MidDay	159,315	169,961	327,685	231,700	112,054	126,638	232,427	176,852	239,708	89,777	193,459	181,018
LastHalfHour	138,744	141,752	256,196	170,897	139,765	143,803	181,844	179,377	226,408	119,166	139,335	199,052

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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info@virtu.com | www.virtu.com

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