

(Ref.) Concept of STR (1)

- STR (Spread to Tick Ratio)** is an indicator that shows how many ticks the nominal spread (the difference between the best ask price and the best bid price) represents, by dividing the nominal spread by the tick size. It is used to assess the appropriateness of the tick size in relation to the liquidity of a security.

Example:
Tick size is set appropriately
(e.g., STR = 3.0)

Sell	Stock Price	Buy
100	3,005	
100	3,004	
200	3,003	
400	3,002	
	3,001	
	3,000	
	2,999	400
	2,998	200
	2,997	100
	2,996	100
	2,995	100

How STR is calculated

The difference (JPY 3) between the best ask price (JPY 3,002) and the best bid price (JPY 2,999) is 3 ticks (JPY 1). Hence, STR is 3.0.

Example:
Tick size is too large
(e.g., STR = 1.0)

Sell	Stock Price	Buy
400	3,005	
200	3,004	
800	3,003	
500	3,002	
1,000	3,001	
2,000	3,000	
	2,999	2,200
	2,998	1,500
	2,997	400
	2,996	800
	2,995	900

Price improvement (e.g., execution at JPY 2,999.5) can be expected by making the orderbook less crowded.

Example:
Tick size is too small
(e.g., STR = 6.0)

Sell	Stock Price	Buy
	3,005	
200	3,004	
	3,003	
100	3,002	
	3,001	
	3,000	
	2,999	
	2,998	
	2,997	
	2,996	200
	2,995	

Orders may become fragmented, meaning there is a risk that transactions are difficult to conduct smoothly and prices will become more volatile.

(Ref.) Concept of STR (2)

- TSE considers the appropriate range for STR to be between 1.5 and 5.0, and will carry out annual reviews of the tick size table applied to each issue based on this.

Table: Assessment of STR Values During the Evaluation Period and Tick Size Tables Applied in Periodic Reviews

STR	Below 1.5	1.5 to 5.0	Above 5.0
Assessment Criteria	The tick size is relatively large in relation to liquidity (thus, a smaller tick size would be more appropriate)	Appropriate STR range (meaning the current tick size is appropriate)	The tick size is relatively small in relation to liquidity (thus, a larger tick size would be more appropriate)
Tick Size Table A	Maintained (Tick Size Table A)	Maintained (Tick Size Table A)	<u>Tick Size Table B applied</u>
Tick Size Table B	<u>Tick Size Table A applied</u>	Maintained (Tick Size Table B)	<u>Tick Size Table C applied</u>
Tick Size Table C	<u>Tick Size Table B applied</u>	Maintained (Tick Size Table C)	Maintained (Tick Size Table C)
Tick Size Table O	Tick Size Table O is a dedicated table for issues whose trading unit is one share (one unit); therefore, no transitions between tick size tables are made based on STR.		