BIST 30 and BIST 100 INDICES HISTORICAL VOLATILITY VALUES CALCULATION METHODOLOGY

End-of-day realized volatility of BIST 30 and BIST 100 Indices are calculated by using close-close volatility method. Formula below is used to calculate realized index volatility for past n trading days on day t (including day t).

$$\boldsymbol{Vol_{t,n}} = \sqrt{252 \times \frac{1}{n} \times \sum_{i=1}^{n} \left(R_{t-i+1} - \bar{R}_{t,n}\right)^2}$$

$$R_t = \ln E_t - \ln E_{t-1}$$

$$\bar{R}_{t,n} = \frac{1}{n} \times \sum_{i=1}^{n} R_{t-i+1}$$

$Vol_{t,n}$= Realized index volatility for n trading days on day t (including day t)

E_t = Closing value of Index on day t

n = Number of days that are used to calculate volatility

Volatility values are calculated for past 21, 42, 63, 126, 252 trading days.