

# Chapter 1

## Commission Delegated Regulation (EU) 2016/2251

ANNEX III Own volatility estimates of the  
haircuts to be applied to the market value  
of collateral for the purposes of Article 22

(1) The calculation of the adjusted value of the collateral shall meet all of the following conditions:

(a) counterparties shall base the calculation on a 99th percentile, one-tailed confidence interval;

(b) counterparties shall base the calculation on a liquidation period of at least 10 business days;

(c) counterparties shall calculate the haircuts by scaling up the daily revaluation haircuts, using the following square-root-of time formula:

$$H = H_M \cdot \sqrt{\frac{N_R + (T_M - 1)}{T_M}}$$

where:

H= the haircut to be applied;

H<sub>M</sub>= the haircut where there is daily revaluation;

N<sub>R</sub>= the actual number of business days between revaluations;

T<sub>M</sub>= the liquidation period for the type of transaction in question;

(d) counterparties shall take into account the lesser liquidity of low quality assets. They shall adjust the liquidation period upwards in cases where there are doubts concerning the liquidity of the collateral. They shall also identify where historical data may understate potential volatility. Such cases shall be dealt with by means of a stress scenario;

(e) the length of the historical observation period institutions use for calculating haircuts shall be at least 1 year. For counterparties that use a weighting scheme or other methods for the historical observation period, the length of the effective observation period shall be at least 1 year;

(f) the market value of the collateral shall be adjusted as follows:

$$C_{\text{value}} = C \cdot (1 - H)$$

where:

C= the market value of the collateral;

H= the haircut as calculated in point (c) above.

- (2) Cash variation margin may be subject to a haircut of 0 %.
- (3) For debt securities that have a credit assessment from an ECAI, counterparties may use their own volatility estimate for each category of security.
- (4) In determining relevant categories of securities for the purposes of paragraph 3, counterparties shall take into account the type of issuer of the security, the external credit assessment of the securities, their residual maturity, and their modified duration. Volatility estimates shall be representative of the securities included in the category.
- (5) The calculation of haircuts resulting from the application of point (c) of paragraph 1 shall meet all of the following conditions:
  - (a) a counterparty shall use the volatility estimates in the day-to-day risk management process including in relation to its exposure limits;
  - (b) where the liquidation period used by a counterparty is longer than that referred to in point (b) of paragraph 1 for the type of OTC derivative contract in question, that counterparty shall increase its haircuts in accordance with the square root of time formula referred to in point (c) of that paragraph.