APPENDIX E: TYPES OF MARGIN / COLLATERAL

A. REQUIRED BY CCPs AND EXCHANGE BASED MARKETS

Type	Use	Calculation	Timing	Relationship to individual positions	Treatment per ED
Initial margin	Ensure sufficient funds to cover potential losses in a default in normal market conditions Cash, bank guarantees and eligible securities are generally accepted	Often determined by the volatility of changes in the market value of that type of derivative May use a variety of models (for example, historical simulation based on value at risk or VaR).	Usually calculated at the end of each business day by the CCP, and then collected the next business day. The level of initial margin is back-tested and reviewed regularly.	Not tied to any specific trade Looks at the clearinghouse's total exposure with respect to the counterparty and their trades	-Conditional right -Would not meet the offsetting principle
Variation margin	Funds to cover losses on current open positions Calculated by the CCP using recent market prices	CCPs typically mark to market participants' positions at the end of each day, and calculate gains and losses accrued since the last mark to market.	Usually calculated at the end of each business day by the CCP, and then collected the next business day.	May be calculated on a gross or net position basis. Under gross margining members are required to deposit margin sufficient to cover their gross positions. Under net margining the long and short positions are netted against each other and the margin should be posted based on the net positions.	Depends on: -the legal nature of the collateral arrangement -the rights of the parties -whether the variation margin forms part of the settlement of the underlying contracts -whether there is a single or multiple payment process (and the timing of such)
Intraday	May call for intraday margin to mitigate intraday risks.	There are three types of intraday margin: -a routine intraday margin call	Intraday as required	Depends on the type of intraday margin	Depends on: -the legal nature of the collateral arrangement

Type	Use	Calculation	Timing	Relationship to individual positions	Treatment per ED
	Likely to be required in cash due to the rapidly changing derivatives exposure and therefore the high velocity of value required through margin accounts.	(usually based on market prices and positions since the end of the last day or combined with update prices) -a non-routine call that automatically occurs if market prices change sufficiently -a selective margin call, that requires the deposit of additional collateral by one or more clearing members, whose variation losses or initial margin deficits have reached a certain threshold.			-the rights of the parties -whether the variation margin forms part of the settlement of the underlying contracts -whether there is a single or multiple payment process (and the timing of such)
Default	A deposit (ie contribution to a default fund) to be used solely to cover any losses that might be incurred by the CCP as a result of the failure of any participant to perform its obligations. This amount is typically used further down in the waterfall (if variation margin or initial margin is not sufficient to cover such losses).	Various factors considered, including the members' own position as well as the total positions of all members with the CCP.	As required	Based on individual as well as total positions of various members	-Conditional right -Would not meet the offsetting principle

B. REQUIRED BY BILATERAL CONTRACTS

Type	Use	Calculation	Timing	Relationship to individual positions	Treatment per ED
Independent amount	Keep or use to offset counterparty's obligations in default or non-performance. Cash, bank guarantees and eligible securities are generally accepted	Often determined by the volatility of changes in the market value of the group of derivatives and the related counterparty's credit.	Held throughout the life of the group of derivatives.	Group of derivatives with that counterparty, not an individual position	-Conditional right -Would not meet the offsetting principle
Variation margin	Funds to cover losses on current open positions	The secured party's exposure (mid-market mark to market value of transactions in portfolio); plus the aggregate of all independent amounts applicable to the party that has delivered collateral, if any; minus all independent amounts applicable to the party that is holding collateral, if any; minus the threshold of the party that has delivered collateral (deemed fixed or variable amount based on credit risk)	May be daily or may depend on threshold of counterparty	Portfolio of positions	Depends on: -the legal nature of the collateral arrangement -the rights of the parties -whether the variation margin forms part of the settlement of the underlying contracts -whether there is a single or multiple payment process (and the timing of such)

Type	Use	Calculation	Timing	Relationship to individual positions	Treatment per ED
Intraday	May call for intraday margin to mitigate intraday risks.	Similar to CCPs	Intraday as required	Depends on the type of intraday margin	Depends on: -the legal nature of the collateral arrangement -the rights of the parties -whether the variation margin forms part of the settlement of the underlying contracts -whether there is a single or multiple payment process (and the timing of such)