



FINMA-Ordinance on the Credit Risks of Banks and Securities Firms

(CreO-FINMA)

SR 952.033.21

Dated 6 March 2025 (Status as of 1 January 2025)

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Dated 6 March 2025 (Status as of 1 January 2025)

The Swiss Financial Market Supervisory Authority (FINMA),

Based on Articles 50(4), 57(2), 58(2), 59(1), 59a(3), 59b(5), 61(3), 62(7), 63(4), 63a(3), 69 (4), 70b(3), 72b(8), 72c(4), 72d(2), 72g, 77(5), 77b(4), 77g(1), 77h(2) and 77j (3) of the Capital Adequacy Ordinance dated 1 June 2012¹ (CAO),

decrees:

Chapter 1: Object and Definitions

ARTICLE 1 Subject

This Ordinance governs the minimum capital requirement applicable to credit risks.

ARTICLE 2 Definitions

For the purpose of this Ordinance, the following terms shall have the following meaning:

- a. Securities Financing Transactions: Loans, Repo and Repo-like Transactions with Securities;
- b. Securities Lending Transactions: Securities loans with regular remargining (margin lending);
- c. Loans, Repo and Repo-like Transactions with Securities: Securities repurchase agreements (repurchase and reverse repurchase agreements) and securities lending and borrowing;
- d. Derivative transactions with remargining: Derivative transactions in which margin payments are calculated and made or received at regular intervals on the basis of a margin agreement based on the net market value of the derivative contracts included in the margin agreement, subject to any thresholds and minimum transfer amounts; transactions with unilateral margin agreements in which the bank only provides collateral but does not receive it are excluded;
- e. Transactions with a long settlement period: Transactions with a contractually agreed settlement or delivery date that is after the earlier of the following two dates, calculated from the time the transaction is concluded:
 1. Market standard date for the instrument in question, or
 2. five business days;

¹ SR 952.03

- f. CVA risk: Risk of market value losses for the bank due to credit valuation adjustments (CVA) for derivatives and securities financing transactions due to the risk of counterparty default (Article 48(3) CAO).

Chapter 2: Standardized approach for calculating the credit equivalents of derivatives

Section 1: Calculating the credit equivalent

ARTICLE 3 Calculation basis

- 1 When applying the Standardized Approach for Measuring Counterparty Credit Risk (SA-CCR), a separate exposure at default (EAD) must be calculated for each netting set.
- 2 In the following cases, the credit equivalent must be calculated at the level of the margin agreement:
 - a. The margin agreement includes several netting sets, and the margin payments are calculated and exchanged on a net basis without satisfying the requirements for netting in accordance with Article 4.
 - b. Any collateral provided or received outside a margin agreement is eligible for netting in respect of more than one netting set.
- 3 If no netting takes place, the credit equivalent must be calculated for each individual contract. In this case, the contract is to be treated as a netting set.
- 4 A netting set is a group of contracts concluded between two parties that meet the requirements set out in Article 4.

ARTICLE 4 Netting

- 1 Claims and liabilities from contracts with novation clauses or other forms of bilateral netting, including close-out netting, may be netted if the following conditions are met:
 - a. The bank has a written agreement with the counterparty according to which, in the event of its insolvency, bankruptcy or liquidation or similar circumstances, the gross liabilities and claims are replaced by a single net liability or claim calculated from the balance of the positive and negative market values of the individual transactions.
 - b. The bank has a written and well-founded legal opinion to the effect that, in the event of a legal dispute, it is reasonable to expect that the competent courts or administrative authorities will decide, based on the applicable legal provisions, that the claim or liability referred to in point (a) is a net amount.

- c. The bank must take appropriate measures to ensure that the contract in accordance with point (a) is adapted immediately to any changes in the legal framework.

- 2 Claims and liabilities from contracts with walkaway clauses may not be netted.

ARTICLE 5 Credit equivalent

- 1 The credit equivalent is calculated using the formula in Annex 1 number 1.
- 2 In the case of derivatives transactions with remargining, the credit equivalent may be capped at the corresponding credit equivalent for derivatives transactions without remargining. As an alternative, derivative transactions with remargining may be treated as transactions without remargining.
- 3 In the following cases, the credit equivalent may be set to zero:
 - a. for derivative transactions whose replacement cost cannot become positive and which are not part of a netting set or a margin agreement;
 - b. in the case of call options on shares sold to the bank by customers, provided that the shares in question are held in the customer's custody account with the bank and it is ensured that the shares are pledged as collateral during the term of the options and that there is no counterparty credit risk vis-à-vis the customer.
- 4 In the case of credit derivatives through which the bank sells credit protection and which are not part of a netting set or a margin agreement, the credit equivalent may be limited to the sum of the outstanding premiums.
- 5 In the cases referred to in 3(a) and (4), the bank may separate these derivative transactions from their legal netting sets and treat them as individual positions without netting and without remargining.

ARTICLE 6 Regulatory replacement costs

- 1 For derivatives transactions without remargining, the regulatory replacement costs (RC) are calculated using the formula in Annex 1, number 2.
- 2 For derivatives transactions with remargining, the regulatory replacement costs are calculated using the formula in Annex 1, number 3.

ARTICLE 7 Regulatory replacement costs for derivatives transactions with a mismatch between netting set and remargining

Where not all derivatives transactions in a netting set are included in the margin agreement or the transactions in the netting set are collateralized by several different margin agreements, the regulatory replacement costs must be calculated using the formula in Annex 1 number 3; the thresholds (TH) and minimum transfer amounts (MTA) of all margin agreements that collateralize the transactions in the netting set must be added together to determine the thresholds (TH) and minimum transfer amounts (MTA).

ARTICLE 8 Regulatory replacement costs at margin agreement level

- 1 If a margin agreement includes several netting sets or if collateral is eligible with regard to several netting sets, the replacement costs are calculated depending on whether the net collateral value (CN) (Article 9) is positive or negative.
- 2 Where the net collateral value is positive, the replacement costs are calculated using the formula in Annex 1 number 4.
- 3 Where the net value of the collateral is negative, the replacement costs are calculated using the formula in Annex 1, number 5.

ARTICLE 9 Net value of collateral and Net Independent Collateral Amount

- 1 The net value of the collateral is calculated using the formula in Annex 1, number 6.
- 2 For derivatives transactions without remargining, the term of the transaction with the longest term is to be used for the adjustment of haircuts (H) in accordance with Article 95 for NR, up to a maximum of 250 days; the maximum amount of an adjusted haircut is limited to 100 percent. In the case of derivatives transactions with remargining, the margin period of risk (Article 15) must be used for the adjustment of haircuts in accordance with Article 95 for TM.
- 3 The net independent collateral amount (NICA) corresponds to the net amount of the market price-independent collateral provided by the counterparty less the market price-independent collateral provided by the bank.
- 4 Market price-independent collateral includes:
 - a. the collateral in excess of the variation margin;
 - b. the collateral amount agreed in the margin agreement (independent amount), insofar as this is independent of market price fluctuations.
- 5 Collateral provided by the bank does not have to be taken into account if it is not subject to any insolvency risk vis-à-vis the counterparty.

ARTICLE 10 Potential Future Exposure

- 1 The Potential Future Exposure (PFE) corresponds to the product of the multiplier set out in Annex 1 number 7 and the aggregated add-on of the netting set as per section 3.
- 2 If a margin agreement includes several netting sets or if collateral is eligible with respect to several netting sets, a separate potential future exposure must be calculated for each netting set. The calculated values must be added together.
- 3 In the case referred to in (2), the collateral is to be allocated to the individual netting sets as follows:

- a. Where the net value of the collateral is positive, all partial amounts allocated to the netting sets must be positive or zero. The amounts must be allocated with priority to the netting sets with positive replacement costs up to the amount of the respective replacement cost.
 - b. Where the net value of the collateral is negative, all partial amounts allocated to the netting sets must be negative or zero. The amounts must be allocated with priority to the netting sets with negative replacement costs up to the amount of the respective replacement cost.
- 4 Subject to the conditions of (2), as an alternative to (3), the potential future exposure can be calculated at the level of the margin agreement by calculating a separate add-on SN for each netting set, totaling the add-on and applying to them the aggregate multiplier calculated using the formula in Annex 1 number 8.

Section 2: Add-on and scaled effective notional value

ARTICLE 11 Scaled effective notional value as the basis for the add-on

- 1 The add-on for a derivative is based on the scaled effective notional value (SEN).
- 2 The SEN must be calculated for each individual derivative transaction. It corresponds to the product of:
 - a. Adjusted notional value (Article 13);
 - b. Maturity factor (Article 14);
 - c. Regulatory delta (Article 16);
 - d. Scaling factor (Article 18).
- 3 In the case of an individual derivative transaction without netting, the add-on corresponds to the absolute amount of the SEN.

ARTICLE 12 Risk factor categories

- 1 Each derivative transaction must be assigned to at least one of the following risk factor categories according to its underlying assets:
 - a. Interest;
 - b. Currencies;
 - c. Credit derivatives;
 - d. Equities; or

- e. Commodities, including gold.
- 2 Allocation is made based on the underlying that is the primary risk driver. A derivative transaction with only one underlying is allocated directly on the basis of this underlying. If it has several underlyings, the primary risk driver is determined based on the sensitivities of the derivative to these underlyings and the volatility of these underlyings.
- 3 Complex derivative transactions with several equivalent risk drivers must be allocated to several risk factor categories. In this case, a separate SEN must be calculated for each risk factor category and included in the calculation of the PFE.

ARTICLE 13 Adjusted notional value

- 1 The adjusted notional value must be calculated for each derivative transaction. It corresponds to:
 - a. for interest rate and credit derivatives: the product of notional value and regulatory duration, calculated using the formula in Annex 1 number 9;
 - b. for currency derivatives: the foreign currency amount converted into Swiss francs;
 - c. for equity and commodity derivatives: the product of the underlying number of units and the market value of a unit;
 - d. for interest rate and credit derivatives with a variable notional value: the average notional value;
 - e. for derivatives transactions in which the notional value is exchanged several times: the notional value multiplied by the number of payments still outstanding under the contract;
 - f. for derivatives that reference the historical or implied volatility or the variance of a risk factor (volatility transactions): the contractual notional value multiplied by the referenced volatility or variance;
 - g. for total return swaps: the outstanding notional amount of the underlying loan.
- 2 If, in the case of currency derivatives, the transaction takes place between two foreign currencies, the larger of the two amounts after conversion into Swiss francs is deemed to be the adjusted notional amount.
- 3 Where the structure of the derivative transaction creates a leverage effect, the notional value of an equivalent transaction without leverage is deemed to be the adjusted notional value.
- 4 If the notional value is a function of an underlying, the current market price of this underlying shall be used to determine the adjusted notional.
- 5 Notional values in foreign currencies must be converted into Swiss francs at the spot rate.

ARTICLE 14 Maturity factor

- 1 The maturity factor is calculated
 - a. for derivatives without remargining: using the formula in Annex 1 number 10;
 - b. for derivatives with remargining: using the formula in Annex 1 number 11.
- 2 The residual maturity for calculating the maturity factor in accordance with (1)(a) is the longest possible period within which contractual payments arising from the transaction may become due. Where a transaction is structured so that all amounts receivable and payable are settled on specified dates and the contractual terms are such that on those dates the market value of the transaction is zero, the residual maturity is the remaining period until the occurrence of the next such date.
- 3 The maturity factor for derivatives transactions with daily settlement may be calculated in accordance with (1)(a) or (b). If it is calculated in accordance with (1)(a), the maturity (M) is equal to ten business days.
- 4 Should a margin agreement cover several netting sets, the maturity factor for the transactions in these netting sets is to be calculated in accordance with (1)(a).

ARTICLE 15 Margin Period of Risk

- 1 The margin period of risk (MPOR) is the time period from the last exchange of collateral to hedge a netting set consisting of transactions with a counterparty that is assumed to be in default until the closure of these transactions and the re-hedging of the resulting market risk.
- 2 For the netting set, the bank must estimate the MPOR. Where the estimate is lower than the following lower limits, these must be used as the MPOR:
 - a. 10 business days: for bilaterally cleared transactions with daily remargining;
 - b. 5 business days: for positions with daily remargining from a clearing member to clearing clients, in cases where the clearing member clears the transactions via a central counterparty.
- 3 Where a netting set meets one of the conditions set out in Article 96(1)(c) or (2), the lower limit for the MPOR is based on these provisions, subject to the following paragraph.
- 4 If there is a temporary illiquidity of derivatives or collateral that relate to the new reference interest rate owing to the cessation of a previously used reference interest rate, an increase in the minimum holding period to 20 business days for netting sets in accordance with Article 96(1)(c)(2) may be waived for a maximum of one year after the old reference interest rate ceases to apply.

ARTICLE 16 Regulatory delta

- 1 For each derivatives transaction, a regulatory delta (δ) must be calculated.
- 2 For options, the regulatory delta is calculated using the formula in Annex 1 number 12.
- 3 For tranches of collateralized debt obligations (CDO tranches), the regulatory delta is calculated:
 - a. in accordance with Annex 1 number 13, if the bank buys credit protection;
 - b. in accordance with Appendix 1 number 14, where the bank sells credit protection.
- 4 All credit derivatives whose credit protection extends to a loss tranche of a pool of reference debtors, in particular nthto-default swaps and securitization tranches, are deemed to be CDO tranches.
- 5 For other derivatives, the regulatory delta is:
 - a. +1 if the market value increases with an increase in the primary risk driver (Article 12(2)); or
 - b. -1 if the market value decreases with an increase in the primary risk driver.

ARTICLE 17 Regulatory parameters

The scaling factors, correlations and volatilities for each underlying are based on the table in Annex 1, number 15.

ARTICLE 18 Scaling factor

- 1 The scaling factor is determined by the risk factor category to which the derivative is assigned.
- 2 The scaling factor determined in line with (1) is:
 - a. halved: for derivatives referencing the difference between two related risk factors (basis transactions);
 - b. multiplied by five: for volatility transactions.

ARTICLE 19 Special cases

- 1 Where a non-linear derivative has the same payoff profile as a bundle of several European options, the derivative is to be broken down into the individual European options. They are to be treated as separate contracts, although it is not necessary to break interest rate caps into individual caplets or interest rate floors into individual floorlets.
- 2 In the event that interest rate caps are nevertheless divided into individual caplets or interest rate floors into individual floorlets, the parameters S and T for each individual caplet or floorlet will correspond to the duration in years from the reference date for calculating the credit equivalent to the

starting date of the coupon period and the parameter E will correspond to the duration in years from the reference date for calculating the credit equivalent to the end date of the coupon period.

- 3 For binary options, the SEN is to be calculated as follows:
 - a. a binary option is to be treated as a combination of a purchased and a sold European call option or a purchased and a sold European put option that approximates the payoff profile of the binary option; both European options must have the same underlying and the same exercise time as the binary option.
 - b. The strike prices (K) of the two European options must be chosen so that one is 95 percent and the other is 105 percent of the binary option's strike price.
 - c. The notional values of the two European options must be chosen such that, for a price of the underlying that is less than 95 percent or greater than 105 percent of the binary option's strike price, the payoff profile of the combination of European options exactly matches the binary option's payout profile.
 - d. Two separate SENs must be calculated for the two European options and the total of these SENs must be calculated.
 - e. The binary option's SEN corresponds to the smaller of the two following amounts, multiplied by minus one if the total calculated according to (d) is negative:
 1. the absolute amount of the total according to (d);
 2. the binary option's absolute payout amount.

Section 3: Aggregation of add-on amounts

ARTICLE 20 Aggregation at the level of the netting set

- 1 A netting set's aggregated add-on amount is to be calculated as follows:
 - a. The SENs of the derivatives in a netting set, except for the SENs of derivatives in the form of basis transactions and volatility transactions, are aggregated as per Articles 21–26 at the level of the netting set into one add-on per risk factor category.
 - b. The add-on amounts calculated as per (a) are aggregated.
- 2 The add-on amounts from derivatives in the form of basis transactions and volatility transactions must be aggregated in accordance with Article 27. The add-on amounts to be calculated for these transactions must be added to the add-on amount in accordance with (1).

ARTICLE 21 Aggregation in the event of a mismatch between the netting set and the margin call

In the event that not all derivatives within a netting set are included in the margin agreement, or if the transactions within the netting set are collateralized by several different margin agreements, the aggregate add-on amount for the netting set is calculated as follows:

- a. All transactions in the netting set that are not subject to a margin agreement form a sub-netting set.
- b. All transactions in the netting set that are subject to a margin agreement with the same margin period of risk form a sub-netting set.
- c. For each sub-netting set, a separate aggregate add-on must be calculated in line with this section.
- d. These separate aggregate add-ons must be added together.

ARTICLE 22 For interest rate derivatives

- 1 The add-on for the netting set derivatives assigned to the interest risk factor category must be calculated as follows:
 - a. The SENs of the interest rate derivatives are assigned separately by currency and based on their end date to one of the following maturity bands:
 1. Maturity band 1: end date within 1 year;
 2. Maturity band 2: end date within 1 to 5 years;
 3. Maturity band 3: end date beyond 5 years.
 - b. The SENs for each currency are fully offset within a maturity band by way of aggregation and thus form the maturity-band-specific SEN1, SEN2 and SEN3.
 - c. For each currency, the maturity-band-specific SEN1, SEN2 and SEN3 are partially offset using the formula in Annex 1, number 16, and thus form the currency-specific add-on.
- 2 Instead of partial offsetting, the absolute amounts of SEN1, SEN2 and SEN3 can also be aggregated for each currency.
- 3 The currency-specific add-ons are aggregated.
- 4 Inflation derivatives may be treated as interest rate derivatives. When aggregating the add-on amounts, inflation derivatives in the same currency may be netted against each other, but not against the other interest rate derivatives. The add-on amount calculated for inflation derivatives in each currency is to be aggregated with the add-on amount per currency of the other interest rate derivatives.

ARTICLE 23 For currency derivatives

The add-on for the derivatives in the netting set assigned to the currencies risk factor category is calculated as follows:

- a. The SENs of the currency derivatives are netted in full by addition, separated by currency pairs.
- b. The absolute amounts of the netted SENs of each currency pair are aggregated.

ARTICLE 24 For credit derivatives

The add-on for the derivatives in the netting set assigned to the credit derivatives risk factor category is calculated as follows:

- a. The SENs of credit derivatives with the same reference debtor or of credit derivatives with the same index as the underlying are netted in full by addition.
- b. The SEN calculated in accordance with (a) for all credit derivatives are partially netted using the formula in Annex 1 number 17.

ARTICLE 25 For equity derivatives

The add-on for the derivatives in the netting set assigned to the equity derivatives risk factor category is calculated as follows:

- a. The SENs of equity derivatives with the same individual security or index as underlying are netted in full by addition.
- b. The SENs calculated in accordance with (a) for all equity derivatives are partially netted using the formula in Annex 1 number 18.

ARTICLE 26 For commodity derivatives

1 When calculating the add-on for the derivatives in the netting set assigned to the commodities risk factor category, the add-ons must be calculated by commodity group. The commodity derivatives must be assigned to the following groups:

- a. energy;
- b. metals;
- c. agricultural products; and
- d. other commodities.

2 Banks must further subdivide the commodity groups in an appropriate manner by commodity type and based on their business activities. For significant basis risks, these commodity types must be

further refined.

- 3 The add-on per commodity group is calculated as follows:
 - a. For commodity derivatives with an underlying that corresponds to the same commodity group and the same commodity type, the SENs are fully offset by addition.
 - b. The SENs calculated in accordance with (a) are partially offset for all commodity derivatives within the same commodity group using the formula in Annex 1 number 19.
- 4 The SENs calculated as per (3)(b) are aggregated.

ARTICLE 27 For basis and volatility transactions

- 1 Basis transactions may be netted against each other if they relate to the same basis of risk factors and are denominated in the same currency. For each basis, a separate add-on is calculated and then added to the other add-ons.
- 2 Interest rate basis transactions that reference the same basis, in particular interest rate swaps with floating interest rates on both sides, are netted in the following order:
 - a. in full within each maturity band as per Article 22(1)(a) and (b); and
 - b. then partially across the three maturity bands as per Article 22(1)(c).
- 3 As an alternative to partial netting, the absolute amounts of SEN1, SEN2 and SEN3 may also be aggregated per currency.
- 4 Other basis transactions with the same basis must be netted in full. The add-on for each basis corresponds to the absolute amount of the SEN fully netted within this basis.
- 5 Volatility transactions may be netted with other volatility transactions. Netting is undertaken in accordance with the rules for netting transactions within the various risk factor categories in accordance with Articles 22-26.

Chapter 3: Simplified approaches for calculating the credit equivalents of derivatives

Section 1: Insignificant derivative positions at Category 3 banks

ARTICLE 28

- 1 Derivatives positions of Category 3 banks as defined in Annex 3 of the Banking Ordinance of 30 April 2014² (BO) are immaterial within the meaning of Article 58(1)(b) CAO if:
 - a. the risk-weighted positions in derivatives, including twelve and a half times the capital requirement to cover the CVA risk, amount to no more than 3 percent of the bank's total risk-weighted positions as defined in Article 42a CAO; and
 - b. the bank uses derivative positions exclusively to hedge its own interest rate and currency risks as part of its treasury management or holds such positions in connection with clearing services.
- 2 Where the proportion of risk-weighted positions in derivatives at a Category 3 bank that uses the simplified standardized approach (SSACCR) or the current exposure approach exceeds 3 percent but does not exceed 5 percent of the total risk-weighted positions as defined in Article 42a CAO, it may continue to use the simplified standardized approach or the current exposure approach if it can demonstrate through analysis or calculation that:
 - a. it does not lead to a material deviation from the capital requirements compared to the standardized approach; and
 - b. it continues to meet the conditions set out in (1)(b).
- 3 Banks that no longer meet the requirements set out in (1) or (2) must apply the standardized approach within one year.

Section 2: Simplified standardized approach

ARTICLE 29 Credit equivalents

- 1 When applying the simplified standardized approach, the provisions on the standardized approach set out in Article 57 CAO and Chapter 2 of this Ordinance govern the calculation of credit equivalents for derivatives, subject to the following deviations.

² SR 952.02

- 2 By way of derogation from Article 3(2) and Article 6(2), all derivative transactions are to be treated as derivative transactions without remargining in accordance with Article 6(1).

ARTICLE 30 Add-on

By way of derogation from Article 19(3), the add-on for binary options may be calculated in accordance with Articles 11 and 19(1).

ARTICLE 31 Maturity factor

If the bank only has information on the individual maturity bands when calculating the maturity factor, but not on the residual maturity itself, the maturity M is deemed to be the value that corresponds to the upper limit of the maturity band, in deviation from Article 14(1)(a) and Annex 1 number 10. For the top maturity band, a maturity of 20 years is to be used.

ARTICLE 32 Regulatory delta

- 1 By way of derogation from Article 16, the regulatory delta is calculated as follows:
 - a. For positions in a risk factor category other than those treated under the standardized approach, the add-ons are not netted and the regulatory delta corresponds to its absolute amount, irrespective of whether it is a long or a short position.
 - b. For options, the regulatory delta may be set to one as an alternative to the calculation set out in Article 16(2) and Annex 1 number 12.
- 2 The derogation set out in (1)(a) does not apply to those risk factor categories for which the only simplification is that all positions in the risk factor category are treated as derivatives transactions without remargining in accordance with Article 29(2).

ARTICLE 33 Scaling factor and adjusted notional value

- 1 By way of derogation from Article 18(2)(a), the scaling factor does not have to be halved for basis transactions in currencies, equities, credit derivatives and commodities.
- 2 By way of derogation from Article 13(1)(a) and Annex 1 item 9, the start time S may be set to zero for interest rate and credit derivatives and the residual maturity may be used as the end time E.
- 3 By way of derogation from Article 13(1)(f) and Article 18(2)(b), the following applies to volatility transactions:
 - a. The adjusted notional value is not required to be equal to the contractual notional value multiplied by the referenced volatility or variance.
 - b. The scaling factor need not be multiplied by a factor of five.

ARTICLE 34 Add-ons for netting sets

- 1 By way of derogation from Article 20, the following assumptions apply to the aggregation of the add-ons for positions in a risk factor category not treated in accordance with the standardized approach:
 - a. Interest rate derivatives are denominated in Swiss francs.
 - b. Credit derivatives relate to the same reference debtor.
 - c. Equity derivatives relate to the same issuer.
 - d. The commodity derivatives are derivatives on metal and relate to the same metal.
- 2 The derogation set out in (1) does not apply to those risk factor categories for which the only simplification is that all positions in the risk factor category are treated as derivatives transactions without remargining in accordance with Article 29(2).

ARTICLE 35 Regulatory parameters

By way of derogation from Article 17, the following regulatory parameters may be used:

- a. for equity derivatives with an index as underlying: the parameters of individual securities;
- b. for all credit derivatives, regardless of the underlying: the parameters of a reference debtor with a BB rating.

Section 3: Current exposure approach

ARTICLE 36 Credit equivalent

- 1 Where the current exposure approach is used, the credit equivalent must be calculated for each netting set in accordance with Article 3(4) using the formula in Annex 2, number 1.
- 2 For contracts where the replacement c cannot become positive and that are not part of a netting set or a margin agreement, the credit equivalent may be set to zero.
- 3 In the case of credit derivatives through which the bank sells credit protection and which are not part of a netting set or a margin agreement, the credit equivalent may be limited to the sum of the outstanding premiums.
- 4 Collateral provided by the bank does not have to be taken into account if it is not subject to any insolvency risk vis-à-vis the counterparty.

ARTICLE 37 Categorization of derivatives based on the underlyings

- 1 Derivatives must be assigned to the following categories based on their underlying:
 - a. Interest rates;
 - b. Currencies and gold;
 - c. Equities;
 - d. Precious metals, without gold;
 - e. Other commodities;
 - f. Credit derivatives (with reference obligation of the category "central governments and central banks" or "qualified interest rate instruments" as per Annex 5 CAO)
 - g. Credit derivatives (with reference obligation of the category "other" as per Annex 5 CAO)
- 2 Where a derivative cannot be clearly assigned to one of the categories in letters a-g due to its underlying, it must be treated as a derivative on other commodities.

ARTICLE 38 Add-on

The add-on for derivatives is calculated by multiplying the add-on rate (Article 39) by the derivative's notional value. Where the structure of the derivative transaction has a leverage effect on the notional value or increases it, the add-on rate must be multiplied by the actual notional value, taking into account the leverage effect or the increase.

ARTICLE 39 Rates for the add-on

- 1 The rate for the add-on depends on the derivative's underlying, its residual maturity and whether or not daily remargining is made. It is based on the table in Annex 2, number 2.
- 2 For derivatives with daily remargining, the reduced rates for the add-on set out in Annex 2 number 2 apply provided the following conditions are met:
 - a. At any given time during the previous quarter, the netting set comprised a maximum of 5000 transactions.
 - b. In the last two quarters, there were no more than two disputes over the margin call that lasted longer than the otherwise applicable holding period; Article 96(2) otherwise applies.
 - c. The netting set contains only readily replaceable derivatives and liquid collateral.
- 3 For first-to-default swaps, the rate for the add-on depends on the highest-risk reference obligation in the portfolio. For second and nth-to-default swaps, the second highest-risk reference obligation or

the nth-highest-risk reference obligation is decisive.

- 4 For derivatives where the notional value is exchanged several times, the rates for the add-on must be multiplied by the number of payments still to be made under the contract.
- 5 Where a derivative is structured so that all amounts receivable and payable are settled on specified dates and the contractual terms are such that on those dates the market value of the derivative is zero, the residual maturity is the remaining period until the occurrence of the next such date. For interest rate derivatives with a residual maturity of more than one year that fulfill the above criteria, there is a lower limit of 0.5% for the add-on rate.
- 6 For floating/floating interest rate swaps in a single currency, the rate for the add-on is zero percent.

ARTICLE 40 Net add-on

- 1 The net add-on for a netting set is calculated using the formula in Annex 2, number 3.
- 2 For a single contract, the net add-on corresponds to the add-on of the derivative.

Chapter 4: EPE model approach for calculating the credit equivalents of derivatives and securities financing transactions

ARTICLE 41

- 1 The authorization requirements for the application of the expected positive exposure model approach (EPE model approach) are governed by number 53 of the Basel minimum standard for the calculation of risk-weighted assets for credit risks (CRE) in the version set out in Annex 1 CAO.
- 2 When applying the EPE model approach, the calculation of the credit equivalents of derivatives and securities financing transactions is based on number 53 of the CRE.

Chapter 5: Combination of approaches for calculating the credit equivalents of derivatives

ARTICLE 42

- 1 The standardized approach may be combined with the simplified standardized approach or the EPE model approach for calculating credit equivalents of derivatives.
- 2 The current exposure approach may not be combined with any other approach.

- 3 In calculating the credit equivalents of derivatives on a consolidated basis, the approaches mentioned in (1) may also be combined with the current exposure approach, provided that this approach is applied by group companies in the financial sector to be consolidated with immaterial derivative positions on a consolidated basis.

Chapter 6: Approaches for risk weighting of positions within the position class for shares in managed collective assets

Section 1: Pro-rated allocation and maximum risk weight

ARTICLE 43

- 1 The risk-weighted positions of a share of managed collective assets (MCA) held by the bank in the banking book correspond to the MCAshare as a percentage, multiplied by the total risk-weighted positions of the MCA.
- 2 The risk weight for an MCA share is a maximum of 1250 percent.

Section 2: Look-Through Approach (LTA)

ARTICLE 44 Requirements

- 1 Use of the look-through approach (LTA) is subject to the following conditions:
 - a. The bank has at its disposal the financial reporting of the managed collective assets or equivalent information that is prepared at least as frequently as the financial reporting of the bank and that allows it to calculate the risk-weighted positions of the managed collective assets itself.
 - b. The information referred to in (a) above on the MCA is verified by an independent third party, the custodian, the custodian bank or the fund management company at least once every two years.
- 2 For the purposes of (1)(a) above, the bank is deemed to have fulfilled the requirement if it calculates the risk-weighted positions of the following MCA shares itself and on the basis of the most up-to-date data:
 - a. MCA shares held by the bank as a custodian bank; or
 - b. MCA shares issued by a fund management company belonging to the same financial group as the bank.

- 3 For the purposes of the review required as per (1)(b), the most recent available report on the MCA at the time of the capital calculation is to be used. There is no requirement for an audit or regulatory audit of the reports on the MCA.
- 4 Where the bank does not have the information necessary to determine risk weights under the LTA, it may use a third party to determine the risk weights for its MCA shares under the LTA. It must add 20 percent to the risk weights determined by the third party.
- 5 Where only parts of the positions underlying an MCA meet the requirements for use of the LTA, the LTA may only be applied to these positions. The fallback approach (FBA) or the simplified approach (SA) must be applied to the remaining positions, in accordance with the conditions applicable to the respective approach.

ARTICLE 45 Risk weighting

- 1 The positions underlying the MCA shares are to be treated according to the LTA for the calculation of risk-weighted positions to cover credit risk and the counterparty credit risk as if they were held directly by the bank.
- 2 The capital requirement for the CVA risk of these positions is carried out within the framework of the calculation of the risk-weighted positions for counterparty credit risk by multiplying the associated credit equivalents by a factor of 1.5 before risk weighting.

Section 3: Mandate-based approach

ARTICLE 46 Requirements

- 1 The bank may apply the mandate-based approach (MBA) if:
 - a. none of the conditions in Article 44(1)–(3) are met; and
 - b. it receives information on the operation of the MCA.
- 2 The information may stem from the relevant contract, from national regulation or from other disclosure reports of the MCA.
- 3 Where only parts of the positions underlying an MCA meet the requirements for use of the MBA, the MBA may only be applied to these positions. The FBA or the SA must be applied to the remaining positions, in accordance with the conditions applicable to the respective approach.

ARTICLE 47 MCA risk-weighted positions

The MCA's risk-weighted positions correspond to the sum of the three following variables in accordance with the MBA:

- a. the MCA's risk-weighted balance sheet items;

- b. the MCA's risk-weighted positions for off-balance sheet transactions and for derivatives, except for those in (c); and
- c. the MCA's risk-weighted credit equivalents for counterparty credit risk from derivative positions.

ARTICLE 48 MCA risk-weighted balance sheet items

- 1 For the purposes of risk weighting the MCA's balance sheet items, it is to be assumed that investments are made to the greatest possible extent in those assets that generate the highest risk-weighted positions among all the investments permitted under the mandate or the regulation.
- 2 Where more than one risk weight can be assigned to a hypothetical position, the highest applicable risk weight must be used.

ARTICLE 49 Risk-weighted positions for off-balance sheet transactions and for derivatives of the MCA

- 1 The calculation of risk-weighted positions for off-balance sheet transactions and for derivatives is based by analogy on Article 48.
- 2 The notional values of the off-balance sheet transactions and the underlying assets of the derivatives are to be used as positions.
- 3 Where the underlying of the derivative is not known, the maximum notional value of the derivative position is to be used. If this is also not known, it is to be conservatively estimated as the maximum permissible notional value of derivatives under the mandate.

ARTICLE 50 Risk-weighted credit equivalents for the counterparty credit risk arising from the MCA's derivative positions

- 1 The credit equivalents for the counterparty credit risk from derivatives positions are calculated and risk-weighted as follows::
 - a. Credit equivalents are calculated for the derivatives positions, either according to the standardized approach set out in Article 57 CAO or according to one of the simplified approaches set out in Article 58 CAO; the following adjustments must be taken into account:
 1. Where the regulatory replacement costs are not known, the sum of the gross notional values of the derivatives in the netting set is used instead; the multiplier as per Article 10 is 1.
 2. Where the potential future exposure cannot be calculated using the standardized approach, it will be assumed to be 15% of the sum of the gross notional values of the derivatives in the netting set.
 - b. The credit equivalents of derivative positions that would be subject to the capital requirement to cover CVA risk in accordance with Article 77g CAO if these positions were held by the bank itself must be multiplied by a factor of 1.5.

- c. The value calculated in this way is multiplied by the risk weight of the counterparty.
- 2 For MCA, derivatives may be excluded from the calculation of risk-weighted positions if:
 - a. the MCA is only allowed to use derivatives for hedging purposes;
 - b. these derivatives are immaterial; and
 - c. the hedging effect is not taken into account.

Section 4: Fallback approach

ARTICLE 51

- 1 In cases where assessing the requirements for the LTA or the MBA involves a disproportionate amount of work, the fallback approach (FBA) may be applied.
- 2 The risk weight for an MCA share in accordance with the FBA amounts to 1250%.

Section 5: Simplified Approach

ARTICLE 52 Banks that may apply the simplified approach

- 1 The banks referred to in Article 59a(2) CAO may apply the simplified approach (SA) as an alternative to the FBA.
- 2 Positions in relation to MCAs of category 3 banks as defined in Annex 3 BO³ are immaterial within the meaning of Article 59a(2)(a) CAO if the carrying value of the MCA shares is less than 1% of the total of all other risk-weighted positions calculated without taking into account the MCA shares.

ARTICLE 53 Requirements

Use of the simplified approach (SA) is subject to the following conditions:

- a. For the MCA, there is a risk indicator in accordance with Annex 9, number 4.2 of the Financial Services Ordinance of 6 November 2019³ 2019⁴.
- b. The MCA directly or indirectly holds at most insignificant positions in high-risk securitizations.

³ SR 952.02

⁴ SR 950.11

ARTICLE 54 Risk weighting

The risk weight for an MCA share amounts to:

- a. 300 percent if the MCA:
 1. directly or indirectly invests in instruments with equity characteristics as defined in Annex 4 number 4 CAO or in debt securities of companies or the public sector, and
 2. has no more than an insignificant amount of positions other than those referred to in item (1);
- b. 500 percent for all other investments of the MCA.

Section 6: Shares held by an MCA in other MCAs

ARTICLE 55

- 1 The calculation of the risk-weighted positions of an MCA share held by the bank in the banking book, which in turn holds a share in a second MCA, follows sections 1–5.
- 2 The risk-weighted positions for a share in a third MCA held by the second MCA may only be calculated using the LTA if the LTA has also been used to calculate the risk-weighted positions for the second MCA. Otherwise, the FBA is to be applied.
- 3 The rules set out in (2) apply by analogy for further MCAs.
- 4 By way of derogation from (2), banks that apply the SA may apply the MBA for private equity funds that invest directly in many further private equity funds without the LTA having to be applied in advance to the share in the investing private equity fund, provided that:
 - a. the fund exclusively holds equity positions; and
 - b. the information required for the application of the MBA is collected from scratch at least once every two years; in the interim, it may be based on changes in the fund's investments on a quarterly basis.
- 5 Where the MBA is applied to private equity funds in accordance with (4), the following applies:
 - a. the fund's total risk-weighted positions correspond to the sum of the risk-weighted positions of the individual investments.
 - b. the risk-weighted positions of a fund share correspond to the fund share in percent, multiplied by the fund's total risk-weighted positions.

Chapter 7: Securitization positions

ARTICLE 56 Applicability of the Basel Minimum Standards

- 1 Unless otherwise specified in this Ordinance, the calculation of the minimum capital requirement for securitizations is governed by numbers 40–45 of the CRE in the version set out in Annex 1 of the CAO. In this regard, due consideration must be given to numbers 32.38–32.59 of the Basel Committee’s “Minimum Standards for the Supervisory Review Process” (SRP) in the version set out in Annex 1 of the CAO.
- 2 The special treatment of credit conversion factors in connection with cash advances from the servicer in accordance with number 40.20, second bullet point, CRE is not permitted.

ARTICLE 57 Requirements governing the application of the approach based on external ratings

A bank that meets the operational requirements in accordance with numbers 42.8–42.10 CRE in the version set out in Annex 1 CAO may apply the external ratings-based approach for securitizations (SEC-ERBA), provided that it:

- a. has appropriate expertise to assess the risks of securitizations and of their corresponding rating methodologies;
- b. records, mitigates and monitors the risks associated with securitizations; and
- c. subjects the external ratings for securitizations to an appropriate due diligence process.

ARTICLE 58 Involving the audit firm and FINMA

- 1 If the Basel minimum standards stipulate that the supervisory authority should be consulted, the bank must instruct its audit firm to conduct an audit. It must also inform FINMA in the following cases:
 - a. the transaction is a new type of securitization transaction
 - b. it is not obvious that the transaction is a securitization transaction
 - c. the bank uses separate waterfall principles for credit risks in general and for dilution risks in particular for the distribution of losses in accordance with number 44.13 of the CRE in the version set out in Annex 1 of the CAO.
- 2 When applying the Internal Assessment Approach for Securitizations (IAA SEC), (1) is not applicable.
- 3 Should the audit firm become aware of possible deficiencies in the bank’s internal processes as per numbers 43.4 or 44.8 CRE, it must immediately inform FINMA.

ARTICLE 59 Treatment of re-tranched securitizations

To clarify the comments in number 40.5 CRE in the version set out in Annex 1 of the CAO, exposures that arise through the re-tranching of a single securitization are not required to be treated as re-securitizations if the following conditions are met:

- a. Re-tranching does not result in reduced transparency regarding the assets pool serving as collateral for the individual securitization.
- b. There are no additional correlation risks to those already present in the assets pool.
- c. There is no increased leverage in the newly created tranches.

Chapter 8: Risk-mitigating Measures

Section 1: Principles and general requirements

ARTICLE 60 Capital requirements

- 1 When taking risk-mitigating measures into account, both banks involved in the transaction in question must comply with the corresponding capital requirements.
- 2 If a bank brokers a repo or repo-like transaction between a client and a third party and guarantees to the client that the third party will fulfil its obligations, it must meet the capital requirements as if it were the principal.
- 3 Where a bank applies risk-mitigating measures to one of its positions, the capital requirement for this position is at most the requirement for the otherwise identical position without these measures.

ARTICLE 61 Exclusion of double counting

- 1 For each position or sub-position, a maximum of one risk-mitigating measure may be taken into account.
- 2 Where the risk weighting of a position already takes into account a risk-mitigating measure, this measure may not be applied again.

ARTICLE 62 Breakdown by maturity

Where the risk-mitigating measure is composed of parts with different maturities, the hedge must be broken down by maturity.

ARTICLE 63 Consideration of all payments due

Irrespective of whether a bank uses the issuer or the issue-specific rating, it must ascertain that the rating takes into account all payments due to the bank from the issuer.

ARTICLE 64 Maturity mismatches

- 1 The hedging of a position by risk-reducing measures whose residual maturity is shorter than that of the position (maturity mismatch) may be taken into account for lowering the capital adequacy requirements except in the simple approach (Section 8), provided that:
 - a. the original maturity of the contract on which the hedge is based is at least one year; and
 - b. the residual maturity of the hedge is over three months.
- 2 Where there is a maturity mismatch, the hedge is calculated in accordance with Annex 3 number 1.
- 3 The hedged position's residual maturity is the period of time after the expiry of which the counterparty must have fulfilled its obligations at the latest, taking into account any applicable deferral periods. The hedge's residual maturity must be the shortest possible residual maturity, taking into account implicit options and termination rights.

ARTICLE 65 General requirements

A risk-mitigating measure may be taken into account when calculating risk-weighted positions if:

- a. a downgrade in the credit quality of the counterparty or its related parties does not significantly reduce the measure's protective effect;
- b. the bank's risk management adequately captures the risks associated with and arising from the risk-mitigating measures;
- c. there is no material positive dependency between the credit quality referred to in (a) and the other risks referred to in (b);
- d. there is a well-founded legal basis for the measure's effectiveness that can be enforced in all relevant jurisdictions; and
- e. the bank has appropriate procedures in place to ensure that the measure's protective effect is realized in a timely manner.

Section 2: Additional requirements for netting

ARTICLE 66

- 1 The legal or contractual netting of on-balance sheet receivables and payables, either in the form of

loans granted to a counterparty or deposits accepted from that counterparty, is permissible if the general requirements set out in Article 65 are met and the bank:

- a. can determine the nettable loans and deposits at any time; and
 - b. monitors and manages both the risks associated with the expiry of the positions (roll-off risks) and the affected positions on a net basis.
- 2 Provided the bank meets these requirements, it may determine the position to be weighted using the net balance of the loans and deposits. The net balance is calculated in line with Annex 3 number 2. In this case, the haircuts H_e and H_c are zero; however, potential currency and maturity mismatches must be taken into account.
 - 3 The haircut for currency mismatches is based on daily revaluation in accordance with Article 94(2). Where revaluation does not take place daily, Article 95(a) applies by analogy, with a minimum holding period of 10 business days.

Section 3: Additional requirements for guarantees

ARTICLE 67 Eligible counterparties

- 1 Guarantees from the following counterparties are eligible as risk-reducing, provided their risk weight is not greater than that of the reference debtor:
 - a. central governments and central banks;
 - b. public-law entities;
 - c. Bank for International Settlements, International Monetary Fund, European Central Bank, European Union, European Financial Stability Facility, European Stability Mechanism;
 - d. multilateral development banks;
 - e. banks, securities firms, qualified central counterparties and other financial sector companies subject to regulatory supervision.
- 2 Guarantees from legal entities with an external rating, including parent companies, subsidiaries or group companies outside the scope of (1), are also eligible as risk-mitigating, provided that the risk-weight of these entities is not greater than that of the reference debtor. For the hedging of securitization positions, the guarantees are only eligible if these entities:
 - a. have a rating of at least class 4 in accordance with Annex 2 CAO; or
 - b. have a rating of at least class 3 in accordance with Annex 2 CAO at the time the credit protection is issued.

ARTICLE 68 Eligible Guarantees

- 1 Guarantees are eligible as risk-mitigating if, on top of the general requirements set out in Article 65, they meet the following conditions:
 - a. The credit risks are effectively transferred to the guarantor to the extent of the protection.
 - b. The guarantee agreement establishes a direct claim against the guarantor.
 - c. The guarantee agreement clearly defines the scope of the protection and explicitly secures certain claims.
 - d. In the event of default or payment delay by the counterparty, the guarantor is obliged, on the basis of the guarantee contract, to make all payments due under the guarantee to the bank as soon as the bank so requests.
 - e. The guarantee contract meets the following requirements:
 1. It is formally valid and exists in paper or electronic form.
 2. It is irrevocable.
 3. It is unconditional.
 - f. A guarantor shall be liable for all payments to be made by the reference debtor arising from the underlying reference obligation.
- 2 Where the guarantor is liable solely for the repayment of principal of the underlying reference obligation, interest and any other payment obligations not covered by the guarantee must be treated as unsecured.

Section 4: Additional Requirements for Credit Derivatives

ARTICLE 69 Eligible counterparties

Credit derivatives from counterparties in accordance with Article 67 are eligible as risk-mitigating, provided that the counterparty's risk-weight is not higher than that of the reference debtor.

ARTICLE 70 Eligible credit derivatives

The only risk-mitigating credit derivatives that are eligible are credit default swaps and total return swaps whose credit protection is equivalent to that of guarantees. In particular, they must meet the general conditions in accordance with Article 65 and the conditions in accordance with this section as well as the conditions in accordance with Article 68 (1) (a) to (e) by analogy.

ARTICLE 71 Match between the hedging and the hedged position

- 1 The following must match with the position to be hedged:
 - a. the exposure used to determine the settlement value or the exposure to be transferred; and
 - b. the exposure used to determine the credit events.
- 2 If the requirements set out in (1) are not met, the credit protection may still be eligible subject to the other requirements in this section if:
 - a. the issuer of the position to be hedged is identical to the reference debtor of the credit derivative;
 - b. the claims specified for the purpose of determining the credit events or for the purpose of settlement are of equal or subordinate rank to the claim to be hedged; and
 - c. a legally valid cross-default clause or prepayment clause ensures that the credit risks are effectively transferred to the protection seller.

ARTICLE 72 Requirements with regard to the contract

- 1 The credit derivative contract must in particular list the following credit events that trigger the credit derivative to fall due:
 - a. default on the contractually agreed payments arising from the claims underlying the credit derivative contract, whereby the maximum grace period in the credit derivative contract may not be longer than the grace period of the claims underlying the credit derivative contract;
 - b. insolvency of the reference debtor, in particular in the form of bankruptcy, over-indebtedness or other inability to pay, or the documented admission by the reference debtor that it is generally no longer able to settle payments falling due, as well as similar events;
 - c. restructuring of the claims underlying the derivative contract by remission or deferral of the payment of principal, interest or fees resulting in a loss.
- 2 Where the condition set out in (1)(c) is not met, the hedge may still be eligible in accordance with the other conditions set out in this section:
 - a. 100% of the hedge if:
 1. the hedged claim is due from a company,
 2. any changes to the term, notional amount, interest, currency or ranking of the claim may only be made unanimously,
 3. The bankruptcy law applicable to the claim allows for the reorganization or restructuring and the orderly settlement of creditors' claims.

- b. 60 percent of the protection if the protection is equal to or less than the claim;
 - c. 60 percent of the claim if the protection is greater than the claim.
- 3 The responsibility for determining whether a credit event has occurred must be clearly assigned to one or more parties, but may not lie solely with the protection provider. The contract must grant the protection buyer the right to notify the protection provider of the occurrence of a credit event.

ARTICLE 73 Total return swaps

In the case of total return swaps, the following must hold in addition:

- a. the reference obligation and the claim to be hedged must be identical;
- b. where payments by the protection seller are recognized as income, the valuation of the claim to be hedged must be adjusted accordingly, either by reducing the fair value or by increasing the value adjustments.

ARTICLE 74 Credit derivatives with and without cash settlement

- 1 In the case of cash-settled credit derivatives, the procedure for valuing the reference obligation must be structured in such a way that it:
- a. defines the period after the occurrence of a credit event within which the valuation must take place;
 - b. permits a reliable estimate of the loss.
- 2 In the case of credit derivatives that are not cash-settled, the protection buyer must be able to transfer the claims to be transferred under the derivative contract to the protection seller in the event of a credit event. The conditions of the claims have to provide that any necessary consent to such a transfer may not be refused without valid reasons.

ARTICLE 75 Term

The credit derivative's term may only end after the expiry of any grace periods that must be observed for the existence of a default due to non-payment.

Section 5: Calculation of risk mitigation in the case of guarantees and credit derivatives

ARTICLE 76 Calculation of risk mitigation

- 1 Where a guarantee or a credit derivative satisfies the requirements of sections 1 and 3 or sections 1 and 4, the protection provider's risk weight may be applied to the hedged portion of the position

instead of the counterparty's risk weight (substitution approach).

- 2 Where losses are shared on a pro rata basis between the bank and the protection provider when using a guarantee that satisfies the requirements of sections 1 and 3 or when using a credit derivative that satisfies the requirements of sections 1 and 4, the bank's minimum capital requirement are reduced by the extent to which the protection provider bears the losses. The position's unsecured portion must be assigned the risk weight of the position's counterparty. The substitution approach can be applied to the hedged part of the position.
- 3 The portion of the position under the threshold below which no payment is made in the event of a loss must be weighted at 1250 percent.
- 4 For either the senior or the subordinated tranches of a position, the bank may take hedging into account if:
 - a. it transfers only part of a position's risk in one or more tranches to one or more protection providers; and
 - b. the risk transferred and the risk borne are not equivalent in rank.
- 5 Where (4) applies, the calculation of the minimum capital requirement is based on Chapter 7 for securitization transactions.

ARTICLE 77 Reduction of risk mitigation for currency mismatches

Where the position to be hedged and the hedge are denominated in different currencies, the hedged amount must be calculated using the formula in Annex 3 number 3.

Section 6: Special cases

ARTICLE 78 Credit-linked notes

Credit-linked notes underpinned by cash that were issued by the bank against claims in the banking book may be treated as positions collateralized by cash deposits as defined in Article 85 if the credit-linked notes satisfy the conditions set out in sections 1 and 4.

ARTICLE 79 Internal hedging transactions

- 1 Where a position in the banking book is hedged using a credit derivative with the bank's own trading department, the hedge can only be taken into account if the trading department has transferred the hedging transaction to an external counterparty with a transaction in the exact opposite direction.
- 2 The external counterparty's risk weight is applied to the hedged claim.

ARTICLE 80 Life insurance policies

Unlinked life insurance policies with a guaranteed surrender value on the life of the borrower or the borrower's parents, siblings, children or spouse may be treated as guarantees to the extent of the surrender value if:

- a. they originate from an insurance company that has been assessed by a rating agency recognized in accordance with Article 6 CAO with a rating in rating class 1, 2 or 3 in accordance with Annex 2 CAO; and
- b. the prerequisites set out in sections 1 and 3 are complied with.

ARTICLE 81 Sureties and export risk guarantees provided by the Swiss Confederation

- 1 Sureties issued by the Swiss Confederation that meet the requirements set out in sections 1 and 3 are eligible as risk-mitigating measures.
- 2 The following sureties and export risk guarantees of the Confederation are eligible as risk-mitigating measures regardless of whether the requirements under (1) are met:
 - a. Guarantees granted under the Housing Construction and Property Promotion Act of 4 October 1974⁵;
 - b. Export risk guarantees in accordance with the Export Risk Insurance Act of 16 December 2005⁶.

ARTICLE 82 Minimum required capital for a bank acting as protection provider

- 1 Where the Bank guarantees the fulfillment of a claim by a third-party debtor, this guarantee obligation must be treated as a direct claim against the third-party debtor in the amount of its credit equivalent in accordance with Article 53(1) CAO.
- 2 Where the bank acts as protection provider for a credit default swap, a total return swap or another credit derivative, the resulting hedging obligations must be treated as direct claims against the reference debtor, subject to (3)-(5).
- 3 Where the bank acts as protection provider for a first-to-default swap that does not have a rating for all claims represented therein (basket rating) from a rating agency recognized in accordance with Article 6 CAO, the individual claims' risk weights must be multiplied by the maximum disbursement amounts provided for their respective credit event. The minimum required capital for this swap is 8% of the sum of the risk-weighted maximum payout amounts, but no more than the maximum possible payout amount of this swap.
- 4 (3) also applies if the hedge consists of a second or nth-to-default swap without a basket rating.

⁵ SR 843

⁶ SR 946.10

However, up until the first position contained in the basket defaults, the smallest risk-weighted payout amount may be disregarded in the aggregation. Whenever one of the positions in the basket defaults, n decreases by one.

- 5 For determining the minimum capital requirement for a credit-linked note, the higher of the risk weights of the reference debtor and the issuer of the Credit-Linked Note is decisive.

Section 7: Financial collateral

ARTICLE 83 Qualitative requirements

- 1 In the case of securities financing transactions and other transactions backed by financial collateral, the banks must ensure the proper handling of any margin agreements with counterparties.
- 2 Risk management must take the following aspects into account:
 - a. Risks resulting from margin agreements;
 - b. Risk concentrations in certain types of collateral;
 - c. Risks from the reuse of collateral;
 - d. ceded rights to collateral deposited with the counterparty.
- 3 Collateral deposited with a custodian must be kept separate from the custodian's assets wherever possible.

ARTICLE 84 Admissibility of the approaches

- 1 Eligible financial collateral in the trading book is taken into account in accordance with the comprehensive approach or the EPE model approach (Article 41).
- 2 Eligible financial collateral in the banking book is taken into account:
 - a. in accordance with the simple approach;
 - b. in accordance with the comprehensive approach; or
 - c. in accordance with the EPE model approach.
- 3 A combination of the simple approach and the comprehensive approach is not permitted for financial collateral in the banking book.
- 4 The use of the value-at-risk model approach in accordance with Articles 102 and 103 requires the use of the internal ratings-based approach (IRB) in accordance with Article 77 CAO.

Section 8: Simple approach for taking financial collateral into account

ARTICLE 85 Financial collateral

- 1 Under the simple approach, the following instruments are eligible as financial collateral:
 - a. Cash deposits with the lending bank, medium-term notes or comparable instruments issued by the lending bank, credit-linked notes as defined in Article 78 and fiduciary deposits with the lending bank or another bank;
 - b. Gold;
 - c. Debt securities in accordance with paragraph 2;
 - d. Equity instruments, including convertible bonds, which are included in one of the main indices;
 - e. Securities funds and Undertakings for Collective Investments in Transferable Securities (UCITS), if:
 1. the share price is published on a daily basis, and
 2. the securities fund or UCITS is restricted to investments in instruments mentioned in this paragraph or which serve as derivatives exclusively to hedge the following investments:
 - investments referred to in this paragraph
 - shares listed on an established stock exchange that are not part of one of the main indices
 - securities funds and UCITS that contain shares listed on an established stock exchange that are not part of one of the main indices.
- 2 The following debt securities are eligible:
 - a. Debt securities rated by a credit rating agency recognized under Article 6 CAO with a rating of:
 1. at least rating class 5 as per Annex 2 CAO if they were issued by central governments, central banks and other public sector entities that are treated as central governments by the national banking supervisory authority;
 2. at least rating class 4 as per Annex 2 CAO if they were issued by entities other than those specified in point 1, including banks and account-holding securities firms,
 3. at least rating class 3 as per Article 64a(1) CAO for short-term ratings for short-term debt securities;

- b. Debt securities not rated by a rating agency recognized as per Article 6 CAO if they were issued by central governments or central banks whose sovereign has a rating of at least rating class 5 as per Annex 2 CAO;
 - c. other debt securities without a rating from a rating agency recognized as per Article 6 CAO, if:
 1. they were issued by a bank;
 2. they are listed on an established stock exchange,
 3. they are to be serviced on a senior basis,
 4. all other senior issues of the same bank with a rating from a rating agency recognized as per Article 6 CAO are assigned to at least rating class 4 as per Annex 2 CAO or rating class 3 as per Article 64a(1) CAO for short-term bonds,
 5. the bank has no information that the unrated bonds would be assigned to a rating class lower than the rating classes specified in point 4 if they were assigned a rating, and
 6. the bond's market liquidity is adequate.
- 3 The collateral must at least:
- a. be pledged to the bank for the term of the collateralized position;
 - b. be marked to market every 6 months, with the exception of collateral in accordance with (1)(a).
- 4 The main indices ((1)(d) and (e)(2)) are listed in Annex 4.

ARTICLE 86 Risk weight

- 1 The risk weight applying the simple approach is at least 20 percent, unless a specific risk weight as defined in Article 87 is applied.
- 2 The risk weight of the part of the position secured by eligible financial collateral corresponds to the risk weight of the financial instrument serving as collateral.
- 3 Where instruments as per Article 85(1)(a), with the exception of fiduciary deposits, are not held in trust as collateral with a third bank, the collateralized portion of the claim is given the risk weight of the third bank if the collateral has been openly, unconditionally and irrevocably assigned or pledged to the lending bank.
- 4 Portions of positions that are collateralized by fiduciary deposits placed with a third-party bank are assigned the risk weight of the third-party bank.
- 5 Any currency mismatch must be treated in accordance with Article 77.

ARTICLE 87 Specific risk weights

- 1 In accordance with the simple approach, a risk weight of zero percent applies to the collateralized portion in the following cases, provided that this and the associated collateral are denominated in the same currency:
 - a. in the case of qualified repo and repo-like transactions (Article 89) with a significant market participant (Article 88);
 - b. in the case of collateral in the form of cash deposits with the lending bank, medium-term notes or comparable instruments issued by the lending bank, as well as fiduciary deposits with the lending bank;
 - c. in the case of collateral in the form of securities issued by a central government, a central bank or a public-law entity with a risk weighting of zero percent applying the international standardized approach for credit risks (SA-BIS), if the market value of this collateral has been reduced by 20 percent to determine the collateralized portion of the position;
 - d. in the case of over-the-counter transactions with derivatives (OTC derivative transactions) with daily market valuation and with collateral in the form of cash.
- 2 A risk weight of 10 percent applies to the collateralized portion of the following transactions, provided that both the collateralized portion and the associated collateral are denominated in the same currency:
 - a. qualified repo and repo-like transactions (Article 89) with market participants that do not fall under Article 88;
 - b. OTC derivative transactions with daily market valuation and with collateral in the form of securities issued by a central government, a central bank or a public-law entity with a risk weighting of zero percent as per the SA-BIS.

ARTICLE 88 Significant market participants

The following are deemed to be significant market participants:

- a. Central governments, central banks, supranational organizations and public-law entities;
- b. Banks and account-holding securities firms;
- c. other companies active in the financial sector, including insurance companies, with a risk weighting of 20 percent according to the SA-BIS;
- d. supervised collective investment schemes that are subject to capital adequacy requirements or leverage limits;
- e. supervised pension funds;

- f. qualified central counterparties.

ARTICLE 89 Qualified repo and repo-like transactions

Transactions that meet the following requirements are deemed to be qualified repo and repo-like transactions:

- a. Both the claim and the collateral are either cash or securities of a central government, a central bank or a public-law entity with a risk weighting of zero percent in accordance with the SA-BIS.
- b. The claim and the collateral are denominated in the same currency.
- c. The transaction either has an original maturity of no more than one day or the claim and the collateral are valued daily at market value and are subject to daily margin call obligation.
- d. In the event that the counterparty fails to meet its margin call obligation, the collateral will be sold within four business days of the last revaluation.
- e. The transaction is settled via a payment and securities settlement system that is universally approved for the type of repo and repo-like transactions in question.
- f. Customary market documentation for repo and repo-like transactions in the securities concerned is available.
- g. The contractual provisions contained in the documentation referred to in (f) stipulate that the transaction may be terminated without notice if the counterparty fails to meet its obligation to deliver cash or securities collateral or its margin call obligation or otherwise defaults.
- h. In the event of default by the counterparty due to insolvency or bankruptcy, the Bank has an unrestricted, legally enforceable claim to immediate seizure and realization of the collateral.

ARTICLE 90 Unsecured portion of repo and repo-like transactions

Where the repurchase agreement for repo and repo-like transactions is denominated in Swiss francs, the unsecured portion may be determined by analogy in accordance with Article 101.

ARTICLE 91 Pledged pension assets eligible as collateral

The calculation of the risk-weighted positions after risk mitigation through eligible pledged pension assets is carried out in accordance with Article 98.

Section 9: Comprehensive approach for the consideration of financial collateral

ARTICLE 92 Financial collateral

- 1 Under the comprehensive approach, the following instruments are eligible as financial collateral:
 - a. all financial collateral eligible under the simple approach;
 - b. shares listed on an established stock exchange that are not included in one of the main indices listed in Annex 4;
 - c. securities funds and UCITS that contain shares as defined in (b).
- 2 Re-securitization positions as defined in number 40.5 CRE in the version set out in Annex 1 CAO are not eligible as collateral, subject to Article 59.

ARTICLE 93 Additional eligible collateral for repo or repo-like transactions in the trading book

Any instruments allocated to the trading book are eligible as collateral for repo or repo-like transactions held in the trading book, with the exception of re-securitization positions as defined in section 40.5 CRE in the version set out in Annex 1 CAO, subject to Article 59.

ARTICLE 94 Standard haircuts

- 1 For eligible financial collateral as defined in Articles 92 and 93, the standard haircuts set out in Annex 3 number 4 apply. For additional eligible collateral as defined in Article 93 that is not listed in Annex 3 number 4, a standard haircut of 30 percent applies.
- 2 In the event of a currency mismatch between the claim and the collateral, an additional haircut of 8 percent shall apply.
- 3 The standard haircuts apply under the following conditions:
 - a. daily revaluation of claims and collateral;
 - b. daily remargining; and
 - c. a ten-day holding period.
- 4 Where collateral consists of a basket of assets, the standard haircut on the basket is calculated using the formula in Annex 3, number 5.

ARTICLE 95 Adjustment to haircuts

For the following cases, the haircut must be calculated in accordance with Annex 3 number 6.1:

- a. in the case of overnight revaluation;
- b. in the case of an overnight margin call obligation;
- c. where the minimum holding period as per Article 96 differs from the ten-day holding period as per Article 94(3)(c).

ARTICLE 96 Minimum holding period

- 1 The following minimum holding period is to be used to calculate the haircut in the case of daily remargining:
 - a. 5 business days for repo and repo-like transactions;
 - b. 10 business days for other capital market transactions, Lombard loans and derivatives, subject to Articles 147 and 148;
 - c. 20 business days for:
 1. Netting sets which comprised more than 5000 transactions at any time during the previous quarter,
 2. Netting sets and transactions that include either at least one transaction with illiquid collateral or a derivative that cannot be readily substituted.
- 2 The minimum holding period for netting sets and transactions must be doubled if within the last two quarters there have been more than two disputes over the margin call that have lasted longer than the otherwise applicable minimum holding period. In the case of derivative transactions not processed via central counterparties for which the requirements set out in number 20 of the Basel Minimum Standard on Margin Requirements (MGN) in the version set out in Annex 1 CAO are met, solely disputes relating to variation margin are taken into account.
- 3 For collateralized loans, the minimum holding period is 20 business days when revalued daily.

ARTICLE 97 Risk-weighted positions

- 1 The calculation of the risk-weighted positions after risk mitigation is governed by Annex 3, number 2. If there is a netting agreement, the calculation is governed by Annex 3 number 7.
- 2 For qualified repo and repo-like transactions (Article 89) with significant market participants (Article 88), the Bank may set the corresponding haircuts equal to zero percent.
- 3 Where a foreign supervisory authority applies a regulation similar to that in (2) for repo and repo-like

transactions with government securities issued by the central government or central bank of that country, the bank may set the corresponding haircuts equal to zero percent.

- 4 Any collateral posted by the bank does not have to be taken into account if it is deemed bankruptcy-remote.

ARTICLE 98 Pledged pension assets eligible as collateral

- 1 In derogation from Articles 94-96, the bank may apply the haircuts in accordance with Annex 3, number 8 for pledged pension assets eligible in accordance with Article 72f(2) CAO.
- 2 Banks in categories 1-3 as defined in Annex 3 of the Banking Ordinance⁷ must adjust the haircuts in accordance with Annex 3, number 6.2 in the event of overnight revaluation.
- 3 The calculation of the positions to be risk-weighted after risk mitigation is governed in analogy by Article 97(1).

ARTICLE 99 Securities loaned or provided as collateral

- 1 Where a bank lends out securities or provides them as collateral, the exposure amount must be increased by the standard haircut on a percentage basis using the formula in Annex 3 number 2.
- 2 If securities do not fall under either Article 92 or Article 93, the standard haircut equals 30 percent.
- 3 Articles 94-96 apply by analogy.

ARTICLE 100 Taking into account netting agreements

- 1 Bilateral netting agreements that relate to securities financing transactions may be taken into account as a risk-mitigating measure insofar as, in the event of the default of a party, they:
 - a. grant the non-defaulting party the right to terminate or close out all transactions covered by the agreement in a timely manner;
 - b. allow for the netting of gains and losses on transactions terminated or closed out under this agreement, including the value of collateral, such that one party owes a single amount to the other;
 - c. permit the immediate sale or netting of the collateral; and
 - d. are enforceable in each participating jurisdiction, including the rights referred to in (a)-(c).
- 2 Securities financing transactions in the banking and trading books may be netted only if:
 - a. the market value of all netted transactions is determined daily; and

⁷ SR 952.02

- b. the hedging instruments used for the transactions are eligible as financial collateral in the banking book.

3 Eligibility for risk mitigation through netting agreements is governed by Annex 3, number 7.

ARTICLE 101 Repo and repo-like transactions in Swiss francs

For repo and repo-like transactions for which the repurchase agreement is denominated in Swiss francs, the unsecured portion may be determined without applying haircuts, provided the following conditions are met:

- a. The counterparty is a significant market participant (Article 88).
- b. The repo or repo-like transaction is settled automatically via a well-established electronic system that eliminates operational and settlement risks.
- c. The transactions are settled by the system according to the “delivery versus payment” principle.
- d. Loans and collateral are valued by the system at both current securities and exchange rates at least twice a day; the respective net position is calculated immediately and the margin call is automatically carried out on the same day.
- e. The contractual provisions for the repo or repo-like transaction stipulate that the transaction may be terminated without notice in the event that the counterparty fails to meet its obligation to deliver cash or securities collateral or its margin call obligation or defaults in any other way.
- f. In case of default of the counterparty, in particular due to insolvency or bankruptcy, there is an unrestricted, legally enforceable claim to immediate seizure and realization of the collateral.
- g. The system used is recognized by FINMA.
- h. The securities used for the repo or repo-like transaction are approved by the Swiss National Bank for repo transactions.

ARTICLE 102 Value-at-risk model approach: Licensing requirement

(Article 62(4) CAO)

- 1 The conditions for being authorized to use the value-at-risk model approach are set out in numbers 32.39 and 32.40 CRE as amended in Annex 1 CAO. The conditions must be complied with at all times.
- 2 Exempt from the authorization requirement are banks that apply a market risk model in accordance with Article 88 CAO that appropriately determines the positions after risk mitigation in securities financing transactions.

ARTICLE 103 Value-at-risk model approach: Positions after risk mitigation

Banks that apply the value-at-risk model approach must determine the positions after risk mitigation in accordance with numbers 32.39-32.41 CRE as amended in Annex 1 CAO.

Chapter 9: Position classes and risk weighting according to the SA- BIS

ARTICLE 104 Defaulted Positions

(Article 63(3)(e) and (4) CAO)

- 1 Defaulted positions under the SA-BIS are positions that:
 - a. are impaired as defined in Article 24(1) and (2) of the FINMA Accounting Ordinance of 31 October 2019⁸ (AO-FINMA);
 - b. are overdue as per Article 26 AO-FINMA.
- 2 The counterparty and all positions vis-à-vis it are deemed to be in default as soon as at least one position is in default. Where a retail position defaults as per Article 71 CAO, the other positions vis-à-vis the counterparty do not have to be regarded as defaulted.

ARTICLE 105 Due diligence when using external ratings

(Article 63a CAO)

- 1 In an internal directive, the bank must specify the criteria it uses to exclude immaterial positions as defined in Article 63a(2) CAO from the due diligence process. These criteria may vary depending on the type of position or counterparty.
- 2 The due diligence must ensure that the ratings used:
 - a. comply with the requirements set out in Article 64(1) CAO;
 - b. are up-to-date and plausible.
- 3 The rating plausibility must be assessed by
 - a. comparisons with other available ratings; and
 - b. evaluation of information on the position or counterparty available in the relevant trade press, specifically financial news and market assessments of the credit risk of the position or counterparty.

⁸ SR 952.024.1

ARTICLE 106 Multilateral development banks

(Article 63(4), third sentence CAO)

Multilateral development banks as defined in Annex 2 number 3.2 CAO, for which a risk weight of zero percent may be applied, are listed in Annex 5.

ARTICLE 107 Simplified risk weighting for banks in category 3: immaterial positions

(Article 69(4) CAO)

The positions of a Category 3 bank as per Annex 3 Banking Ordinance⁹ are immaterial and the bank may apply the simplified risk weighting in accordance with Article 69(4) CAO provided that the positions vis-à-vis foreign banks amount to no more than 5% of the total of all positions as per Article 63 CAO.

ARTICLE 108 Requirements with regard to high-quality project financing

(Article 70b(3) CAO)

Alongside the requirement set out in the first sentence of Article 70b(3) CAO, the following requirements apply to high-quality project financing:

- a. The company that finances a project (project finance company) cannot take any actions that are detrimental to the debtors and it disposes of sufficient reserves or has taken other precautions to ensure the project's liquidity and capital adequacy even in an emergency.
- b. The revenues of the project finance company originate to a significant extent from a counterparty that is a central government, a central bank, a public corporation or a company with a risk weight of no more than 80 percent.
- c. The revenues of the project finance company are subject to a yield regulation or are secured by an unconditional payment obligation of the contractual partners ("take-or-pay contract"), or the project finance company has an entitlement to the contractual payments of its contractual partners, provided that the project is completed and the contractual conditions are fulfilled.
- d. The contractual provisions provide a high degree of creditor protection in the event of the project finance company's bankruptcy and allow creditors to take control of the project finance company in such a case.
- e. The counterparty referred to in (b) or several other counterparties that are a central government, a central bank, a public corporation or a company with a risk weight of no more than 80 percent protect creditors against losses resulting from the termination of the project.
- f. All assets and contractual claims required for the implementation of the project have been pledged to the creditors to the extent permitted by applicable law.

⁹ SR 952.02

ARTICLE 109 Positions secured by real estate liens: Lending value of the real estate lien

(Article 72b(6) and (8) CAO)

Compliance with the requirement regarding the prudent determination of the lending value of the real estate lien is deemed to be fulfilled by systematic adherence to the corresponding requirements of the Swiss Bankers Association's guidelines of 13 December 2023¹⁰ for the examination, valuation and settlement of loans secured by real estate liens.

ARTICLE 110 Positions secured by real estate liens: Risk weighting

(Article 72c(3) and (4) CAO)

The minimum requirements regarding the appropriate minimum proportion of the borrower's capital and regarding appropriate amortization in accordance with Article 72c(3) CAO are deemed to be met for a position through systematic compliance with the corresponding requirements of the Swiss Bankers Association guidelines of 13 December 2023¹¹ relating to minimum requirements for mortgage financing.

ARTICLE 111 Positions secured by real estate liens: Affordability

(Article 72d CAO)

The requirements regarding the affordability of the loans granted as per Article 72d(1) CAO are deemed to be met through systematic compliance with the corresponding requirements of the Swiss Bankers Association's guidelines of 13 December 2023¹² for the review, valuation and settlement of loans secured by mortgages.

Chapter 10: Internal ratings-based approach

Section 1: General provisions

ARTICLE 112 Applicability of the Basel Minimum Standards

(Article 77(2) and (5) CAO)

When calculating the minimum capital requirement for credit risks using the Internal Ratings-based Approach (IRB), numbers 30–36 CRE in the version according to Annex 1 CAO apply, unless this Ordinance stipulates otherwise. In this regard, numbers 32.1 and 32.2 SRP in the version according to Annex 1 CAO must be complied with.

ARTICLE 113 References to the Standardized Approach

If a Basel minimum standard for the IRB refers to the rules of the standardized approach in accordance with numbers 20–22 CRE in the version according to Annex 1 CAO, the rules on the SA-BIS in accordance

¹⁰ The guidelines can be accessed online free of charge at: www.finma.ch > Documentation > Self-regulation > Self-regulations.

¹¹ The guidelines can be accessed online free of charge at: www.finma.ch > Documentation > Self-regulation > Self-regulations.

¹² The guidelines can be accessed online free of charge at: www.finma.ch > Documentation > Self-regulation > Self-regulations.

with Article 50(1)(a) CAO and the associated implementing provisions of this Ordinance must be applied.

ARTICLE 114 Conversion rate

- 1 Where the Basel minimum standards refer to euro amounts, an exchange rate of CHF 1.50/EUR 1 is to be applied for conversion into francs.
- 2 Not subject to conversion is the threshold value in accordance with number 30.34(1) of the CRE in the version according to Annex 1 of the CAO.

ARTICLE 115 Authorization requirements

(Article 50(3) and (4) CAO)

- 1 The requirements for authorization to apply the IRB are set out in number 36 of the CRE in the version according to Annex 1 of the CAO. The following clarifications apply:
 - a. The bank must have adequate resources to maintain an orderly rating system operation in accordance with number 36.9 of the CRE.
 - b. The rating system's underlying IT infrastructure must be fit for purpose and reliable in its application.
 - c. The rating system must be based on a solid concept and implemented appropriately with regard to the bank's specific activities.
 - d. The bank must prepare a stress test concept that meets the requirements of numbers 36.50–36.53 CRE and number 32.1 SRP in the current version in accordance with Annex 1 CAO, and carry out appropriate stress tests.
- 2 The bank must meet the authorization requirements at all times.

ARTICLE 116 Changes in authorization requirements

- 1 The bank must report to FINMA and the audit firm any changes in circumstances that may affect the authorization requirements for applying the IRB, in particular changes to the rating system or to risk practice.
- 2 Where the changes are of material significance, further application of the IRB approach is subject to the prior approval of FINMA.

ARTICLE 117 Introduction and scope of application of the IRB

The introduction and application of the IRB approach by a bank is governed by the provisions of numbers 30.45–30.52 CRE in the version set out in Annex 1 CAO.

ARTICLE 118 IRB stress tests

The bank is to regularly submit the results of the stress tests to FINMA. As per number 32.1 SRP in the version in Annex 1 CAO, the results are included in the determination of any additional capital in accordance with Articles 45 and 131b CAO.

Section 2: Position classes

ARTICLE 119 Allocation to position classes

- 1 Under the IRB, any position with credit or counterparty credit risk must be allocated to one of the following position classes as follows:
 - a. Corporates: in accordance with numbers 30.6-30.16 CRE in the version set out in Annex 1 CAO;
 - b. Central governments, central banks and supranational organizations: in accordance with number 30.17 CRE;
 - c. Banks: in accordance with number 30.18 CRE;
 - d. Retail: in accordance with number 30.19-30.25 CRE;
 - e. purchased retail and corporate claims: in accordance with numbers 30.27-30.31 CRE.
- 2 Instruments with equity characteristics must be allocated to the position class specified in Article 63(3)(f) CAO and treated in accordance with the SA-BIS.

ARTICLE 120 Position class “Corporates” and sub-position class “High Volatility Commercial Real Estate”

- 1 The positions as per numbers 30.6-30.16 CRE in the version set out in Annex 1 CAO are to be allocated to the Corporates position class.
- 2 The following applies to the sub-position class High Volatility Commercial Real Estate (HVCRE) as defined in numbers 30.15 and 30.16 CRE:
 - a. In the case of properties in Switzerland, the banks do not have to allocate the positions in accordance with number 30.15, first item CRE to the HVCRE position class.
 - b. In the case of properties abroad, the bank must apply the HVCRE classifications specified by the competent supervisory authorities.
- 3 On a case-by-case basis, FINMA may determine that a bank must classify certain positions for the financing of commercial real estate in Switzerland and abroad as HVCRE positions.

ARTICLE 121 Position class “Central governments, central banks and supranational organizations”

The position class central governments as defined in number 30.17 CRE in the version in Annex 1 CAO does not include positions towards public sector entities.

ARTICLE 122 Position class “Banks”

The position class Banks is to be allocated to the positions in accordance with number 30.18 CRE in the version set out in Annex 1 CAO.

ARTICLE 123 Position class “Retail”

- 1 There is no upper limit regarding the value of positions towards natural persons within the meaning of number 30.20, first item CRE, in the version according to Annex 1 CAO.
- 2 Positions towards small businesses may be assigned to the retail position class in accordance with the provisions of number 30.22, second item CRE. Small businesses within the meaning of number 30.20, third item CRE are those with a consolidated annual turnover of up to CHF 15 million. At the request of a bank, FINMA may also permit a different indicator to annual turnover to be used for classifying small businesses, in particular the balance sheet total.
- 3 Positions towards persons who have unlimited personal liability as self-employed persons may be assigned to the retail position class irrespective of their amount.
- 4 FINMA may permit a bank to assign its entire Lombard loan portfolio to the retail position class.

ARTICLE 124 Sub-position classes of the retail position class

Within the retail position class, the following positions are to be assigned to the sub-classes listed below in accordance with number 30.23 CRE in the version in Annex 1 CAO:

- a. positions secured by residential property and secured by owner-occupied commercial property: the sub-class “residential mortgage loans”;
- b. positions that cannot be assigned to the sub-class in accordance with (a) provided that the conditions in accordance with number 30.24 CRE are met: the sub-class “qualifying revolving retail positions”;
- c. remaining positions: the sub-class “all other retail positions”.

Section 3: Risk weighting

ARTICLE 125 Corporates

- 1 If the annual sales (S) of small and medium-sized corporates (SMEs) are in francs, in accordance

with Article 70(3) CAO, the correlation R is to be calculated in deviation from number 31.8 CRE in the version according to Annex 1 CAO using the formula in Annex 6.

- 2 Instead of the annual sales, the balance sheet total may be used in accordance with number 31.9 CRE, provided that this indicator is more suitable for measuring the size of the company.

ARTICLE 126 Special financing

- 1 The following are considered to be special financing:
 - a. project financing;
 - b. real estate financing;
 - c. commodity trade financing;
 - d. financing of investment properties; and
 - e. HVCRE.
- 2 Banks fulfilling the IRB minimum requirements for estimating the probability of default of HVCRE positions may weight their risk using the simple IRB (Foundation IRB, F-IRB). In doing so, they must comply with the conditions set out in number 31.11 of the CRE in the version set out in Annex 1 of the CAO.
- 3 Banks that also fulfill the IRB minimum requirements for estimating the loss given default and the size of HVCRE positions may apply the Advanced IRB approach (A-IRB) to weight their risk. In doing so, they must comply with the conditions set out in number 31.11 CRE.
- 4 Where the conditions set out in number 33.4 CRE are met, the reduced risk weightings for unexpected losses may be applied to specialized lending positions as defined in (1)(a) to (d).
- 5 In the case of positions from foreign HVCRE, the reduced risk weightings for unexpected losses may be applied solely if a foreign supervisory authority within its jurisdiction:
 - a. has prescribed an HVCRE classification in accordance with number 30.16 CRE; and
 - b. has approved the applicability of reduced risk weights in accordance with number 33.7 CRE.

ARTICLE 127 Instruments with equity characteristics and MCA shares

- 1 Instruments with equity characteristics must be risk-weighted in accordance with the SA-BIS. The transitional provision set out in Article 148g CAO does not apply.
- 2 MCA shares must be risk-weighted in accordance with the provisions specified in 60.18–60.20 CRE in the version set out in Annex 1 CAO.

ARTICLE 128 Purchased claims

- 1 Where a pool of purchased claims contains individual positions that exceed the concentration limits set out in number 30.30, fourth item CRE in the version set out in Annex 1 CAO, the minimum capital requirement for the risk of this pool must be calculated using the bottom-up approach in accordance with number 34.4 CRE.
- 2 The concentration limit is CHF 150,000.
- 3 Where a bank so requests, FINMA may permit it in accordance with number 34.4 CRE to calculate the minimum capital requirement for the risk of default by debtors using the top-down approach for purchased corporate claims for which the concentration limit is not exceeded.
- 4 When calculating the minimum capital requirement for dilution risk, a term of one year may be applied instead of the effective maturity (Maturity, M) of the purchased claims under the conditions set out in number 34.8, second bullet point, letter c CRE.
- 5 Eligible protection providers for the purposes of calculating the minimum capital requirement for dilution risk under the F-IRB approach in accordance with number 34.12 CRE are those specified in Article 132.

Section 4: Subordinated Positions and Collateral

ARTICLE 129 Subordinated positions

For the purposes of number 32.7 CRE, in the version set out in Annex 1 CAO, all positions are deemed subordinated where it is stated irrevocably and in writing that they:

- a. in the event of liquidation, bankruptcy or an agreement with creditors, rank behind the claims of all other creditors; and
- b. are not netted against claims of the borrower or secured by the borrower's assets.

ARTICLE 130 Haircuts on repo and repo-like transactions

The rules for haircuts to determine the eligible value of financial collateral under the comprehensive approach (Articles 92–103) apply by analogy to the risk weighting of repo and repo-like transactions.

ARTICLE 131 Eligible physical collateral under the F-IRB

- 1 The following physical collateral is eligible subject to the conditions set out in numbers 32.8, 36.129–36.132 of the CRE in the version set out in Annex 1 of the CAO under the F-IRB:
 - a. multi-family residential properties in Switzerland, including those that are investment properties and are financed as such;

- b. multi-family residential properties abroad, provided that the applicable regulation recognizes them as collateral.
- 2 Commercial investment properties are not eligible as physical collateral.
- 3 FINMA may authorize the recognition of other types of physical collateral in accordance with numbers 36.143–36.145 CRE. Where this is the case, the bank must regularly review whether the recognition requirements continue to be met.

ARTICLE 132 Approved protection providers for guarantees and credit derivatives under the F-IRB approach

For the purposes of the F-IRB, the following are eligible as protection providers under the conditions set out in number 32.23 CRE in the version according to Annex 1 CAO:

- a. the protection providers set out in Article 67(1);
- b. protection providers for whom the bank has an internal rating.

Section 5: Maturity-dependent adjustment of risk weights

ARTICLE 133 General

- 1 Banks that apply the F-IRB must perform the maturity-dependent adjustment of risk weights in accordance with the rules of the A-IRB.
- 2 Corporate positions are subject to the maturity-dependent adjustment of risk weightings without exception.
- 3 For positions without an agreed maturity that the bank can terminate unconditionally at any time and that are to be settled within a maximum of twelve months upon termination, M is to be set to one year when calculating the maturity-dependent adjustment in accordance with number 31.6 of the CRE in the version set out in Annex 1 of the CAO. For other positions with no agreed maturity and for positions for which the effective maturity is not specified in numbers 32.44–32.54 CRE, M must be set at 2.5 years.
- 4 Where the bank is either unable or only able with disproportionate effort to calculate the effective maturity M in accordance with number 32.47 CRE, the contractually agreed residual maturity of the position may be used instead.

ARTICLE 134 For short-term positions

The lower limit of one year for the effective maturity M in accordance with number 32.46 CRE in the version according to Annex 1 CAO is not applicable for the following positions:

- a. transactions specified in numbers 32.51 and 32.52 CRE;
- b. positions arising from securities financing transactions and derivatives transactions, provided that:
 1. the transactions are carried out on a secured basis,
 2. these positions are valued daily at market values,
 3. in the event of any over-collateralization or under-collateralization compared to the originally agreed collateral, this is adjusted by daily remargining or changes in the deposited values,
 4. the transactions are terminated by selling the collateral if the margin call obligation is not met within the usual period for options and futures exchanges, and
 5. the transactions have an original maturity of less than one year and are not part of an ongoing financing of a debtor by the bank.
- c. positions towards banks arising from currency transactions, provided that the related settlement risks are eliminated by an appropriate system;
- d. positions arising from electronic transfers.

Section 6: Expected loss, value adjustments and risk quantification

ARTICLE 135 Expected loss and value adjustments

- 1 With the exception of HVCRE positions, the risk weights for the expected loss of specialized lending may be reduced in accordance with number 33.10 CRE in the version in Annex 1 CAO.
- 2 FINMA may allow a bank that applies both the SA-BIS and the IRB to allocate general loan loss provisions to the positions according to the bank's own procedure. This procedure must result in an appropriate allocation to the risk-weighted positions in accordance with the relevant approach and may not primarily be aimed at maximizing eligible capital.
- 3 Credit valuation adjustments for derivatives that are deducted from the credit equivalent of the corresponding derivative in accordance with Article 50a(1)(b) CAO are not deemed to be value adjustments within the meaning of number 35 CRE.

ARTICLE 136 Minimum requirements for risk quantification

- 1 Irrespective of the type of debtor, the period of default in accordance with number 36.68 CRE in the version set out in Annex 1 CAO is always 90 days.

- 2 In derogation from number 36.68 CRE, the Bank may consider Lombard loans to be in default if:
 - a. the realizable market value of the available collateral has fallen below the Lombard loan amount;
 - b. the position has become undercollateralized as a result; and
 - c. it is not clear whether the counterparty will be able to meet its obligations, whether this is unlikely or whether agreed measures to eliminate the shortfall have failed.
- 3 With FINMA's prior approval, a bank may use the specific valuation adjustments, provisions and partial write-offs created for a defaulted position as the best estimate of the expected loss of this position within the meaning of number 36.86 CRE.

Chapter 11: Positions towards central counterparties, clearing members and clearing clients in connection with trading transactions

Section 1: Definitions

ARTICLE 137 Trading transactions of a central counterparty with another central counterparty

Where a central counterparty executes trading transactions with another central counterparty, this second central counterparty is considered as the first central counterparty's clearing member. FINMA will then decide whether the second central counterparty's collateral is to be treated as initial margin or as a contribution to the default fund.

ARTICLE 138 Multi-level client relationship

- 1 A multi-level client relationship is deemed to exist if a party settles trading transactions with a central counterparty via intermediary institutions by using the clearing services of an institution that is not itself a clearing member but is instead a clearing client of a clearing member or another clearing client.
- 2 In such a multi-level client relationship, the institution that offers the clearing service to the other party is deemed to be the provider and the party that uses the clearing service is deemed to be the clearing client of the provider.

ARTICLE 139 Initial margin

- 1 The initial margin constitutes the assets that the clearing member or the clearing client provides to the central counterparty as collateral to cover any claims of the central counterparty against the clearing member arising from future changes in the value of the trading transactions in accordance with Article 77b(2)(a-c) CAO.

- 2 The initial margin also includes any collateral provided by the clearing member or the clearing client that exceeds the minimum amount required by the central counterparty if the central counterparty or the clearing member can prevent the clearing member or the clearing client from withdrawing this collateral.
- 3 Where a central counterparty uses the initial margin to allocate losses due to the default of a clearing member to the other clearing members, it must be treated as a contribution to the default fund in accordance with Article 141 and not as initial margin.

ARTICLE 140 Variation margin

The following applies as variation margin:

- a. any assets that the clearing member provides to the central counterparty as collateral on a daily or intraday basis to compensate for changes in the value of its trading transactions in accordance with Article 77b (2)(a)-(c) CAO;
- b. any assets that the clearing client provides directly or indirectly to the central counterparty as collateral on a daily or intraday basis to compensate for changes in the value of its trading transactions in accordance with Article 77b(2)(a-c) CAO.

ARTICLE 141 Default fund

The pre-financing, contributions and commitments of the clearing members relating to loss-sharing agreements with a central counterparty are deemed to be positions towards the default fund.

Section 2: Operational requirements for positions towards a central counterparty

(Article 77b(4) CAO)

ARTICLE 142

- 1 Where a bank holds positions towards a central counterparty, it must monitor these positions and regularly inform its senior management and the relevant committees at the level of the Executive Board and Board of Directors about these positions and the associated risks, in particular about:
 - a. Positions from trading transactions with the individual central counterparties;
 - b. Any obligations as a clearing member, in particular contributions to the default fund and margin call obligations.
- 2 Where the bank is a clearing member, it must also assess its capital adequacy by means of corresponding scenario analyses and stress tests. The assessment must also include any future claims and contingent liabilities, especially with regard to the default fund or as a result of default or insolvency of another clearing member, insofar as the bank has to assume or replace close-out transac-

tions with the central counterparty on behalf of its clients.

Section 3: Minimum capital requirement for positions of a clearing member towards a qualified central counterparty

ARTICLE 143 Loss of status as a qualified central counterparty

In the event that a qualified central counterparty no longer meets the requirements under Article 77a(2) CAO, the minimum capital requirement for positions towards such a qualified central counterparty may continue to be calculated in accordance with the rules for qualified central counterparties for a maximum of three months. FINMA may extend this deadline on a case-by-case basis.

ARTICLE 144 Calculation of positions from trading transactions

- 1 Positions from trading transactions (Article 77b (2) CAO) with a qualified central counterparty must be calculated using the following approaches, depending on the type of position:
 - a. according to the standardized approach for calculating the credit equivalents of derivatives in accordance with Chapter 2;
 - b. in accordance with the EPE model approach set out in Article 41; or
 - c. in accordance with the rules for collateralized transactions and risk-mitigating measures in accordance with Chapter 8.
- 2 For the calculation in accordance with (1), the minimum holding periods to be applied under these approaches apply, with the following exceptions:
 - a. The minimum holding period of 20 business days for netting sets in accordance with Article 96(1)(c)(1) is not applicable if neither Article 96(1)(c)(2) nor Article 96(2) are applicable.
 - b. A minimum holding period of ten business days applies to derivatives positions towards a qualified central counterparty.
- 3 Where the qualified central counterparty does not provide variation margin or retains variation margin received irrespective of changes in the value of the trading transactions without the collateral being protected against the insolvency of the qualified central counterparty, the minimum holding period for the corresponding positions is the residual term of the trading transaction, but no more than one year and no less than ten business days. The position shall be treated as a derivative transaction without remargining.

ARTICLE 145 Risk weighting for positions from trading transactions

- 1 A risk weight of 2 percent is applicable to positions arising from trading transactions with the qualified central counterparty if the clearing member
 - a. holds them for its own purposes; or
 - b. offers clearing services to a client and is obliged to reimburse the clearing client for all losses incurred as a result of changes in the value of the trading transactions in the event of default by the qualified central counterparty.
- 2 Where (1) applies, collateral provided by the clearing member to the qualified central counterparty must be weighted in accordance with Articles 152 and 153.

ARTICLE 146 Separate contributions to the default fund

Where the contributions to the default fund are segregated by product type, number 54.24 CRE in the version set out in Annex 1 CAO applies.

Section 4: Positions of a Clearing Member towards Clearing Clients and vice versa

ARTICLE 147 Positions of a clearing member towards clearing clients

Positions from trading transactions of a clearing member to clearing clients must be treated as bilateral transactions, irrespective of whether the clearing member guarantees fulfillment or acts as a financial intermediary between the clearing client and the central counterparty. Treatment as bilateral transactions must also include the collateralization of the CVA risk.

ARTICLE 148 Minimum holding period

Where a clearing member calculates the minimum capital requirement for positions arising from trading transactions that it holds with clearing clients in accordance with the standardized approach or the EPE model approach, it may apply a minimum holding period of at least five business days. The same minimum holding period is also applicable for the calculation of the minimum capital requirement for the CVA risk.

ARTICLE 149 Collateral

Where a clearing member receives collateral from a clearing client and passes it on to the qualified central counterparty, it may take this collateral into account when calculating the credit equivalent towards its clearing client. The same applies to a provider's positions towards its clearing client in the case of a multi-level client relationship.

ARTICLE 150 Positions of a bank that it holds as a clearing client of a clearing member

- 1 If a bank is a clearing client of a clearing member of a qualified central counterparty, the transferability of the trading transaction in the event of default by the clearing member is deemed to be guaranteed provided the following conditions are met:
 - a. The qualified central counterparty identifies the close-out transactions executed between it and the clearing member for its clients as client transactions.
 - b. The collateral provided by the clearing client is kept separate from the holdings and assets of the clearing member and its other clearing clients, both at the level of the clearing member and at the level of the qualified central counterparty, so that the clearing client's collateral is protected:
 1. in the event of the clearing member's default;
 2. in the event of default of other clearing clients of the clearing member;
 3. in the event of a joint default of the clearing member and its other clearing clients.
 - c. In the event of the default of the clearing member, there is no legal impediment to the transfer of the collateral provided by the clearing client to the following parties, apart from any necessary legal steps for the enforcement of rights:
 1. the central counterparty;
 2. one or more solvent clearing members;
 3. the clearing client itself; or
 4. an authorized representative of the clearing client.
 - d. The requirements under (a)-(c) are legally valid, binding and, if necessary, enforceable in all relevant jurisdictions; the clearing client must verify this on a regular basis.
 - e. The defaulting or insolvent clearing member's close-out transactions with the qualified central counterparty may be settled by another clearing member via the qualified central counterparty or by the qualified central counterparty itself with a high probability, based on the relevant legal, contractual and administrative regulations, and the clearing client's positions and collateral with the qualified central counterparty may be transferred at market value, unless the clearing client requests that the positions be closed out at market value.
- 2 Subject to the conditions set out in (1), positions arising from a clearing client's trading transactions with the qualified central counterparty may also be treated in accordance with Articles 144 and 145. The same applies to the positions of a provider's clearing client to the provider in the case of a multi-level client relationship.

- 3 Where the bank as a clearing client is not protected against losses arising from the joint default of the clearing member and another of its clearing clients, but the conditions set out in (1)(a), (b)(1) and (2) as well as (c-e) are met, the bank may nevertheless treat its positions from trading transactions with the clearing member in accordance with Articles 144 and 145, applying a risk weight of 4 per cent instead of 2 percent.
- 4 If the bank is a clearing client of a clearing member and the conditions set out in (1) and (3) are not met, the bank must treat its positions towards the clearing member arising from trading transactions as bilateral transactions and, if necessary, hold corresponding minimum capital requirement to cover the CVA risk.

ARTICLE 151 Transactions involving exchange-traded derivatives with a bilateral clearing agreement

- 1 Trading transactions involving exchange-traded derivatives between a clearing member and its clearing client that take place under a bilateral clearing agreement are to be treated by both parties as off-exchange derivatives transactions.
- 2 (1) applies by analogy to trading transactions between providers of clearing services and their clearing clients in multi-level client relationships.

Section 5: Collateral provided in the context of trading transactions with a qualified central counterparty

ARTICLE 152 Calculation of minimum capital requirement

- 1 For collateral that a bank, as a clearing client or clearing member, has provided to a qualifying central counterparty, the bank must hold minimum capital as if it had not provided the collateral.
- 2 If the collateral provided is exposed to counterparty risk of insolvency, the bank must hold additional minimum capital to cover the counterparty credit risk of the counterparty holding the collateral.
- 3 For the purposes of calculating the additional minimum capital requirement in accordance with (2), the collaterals' carrying amounts are to be increased by the haircuts calculated in accordance with Articles 94 to 96. The values calculated this way are:
 - a. according to the standardized approach: to be added to CN and to NICA in accordance with Annex 1 number 3;
 - b. according to the EPE model approach: in accordance with Article 41, either to be integrated into the simulation or to be multiplied separately by the EPE factor (alpha) in accordance with Article 59 (2) CAO.

ARTICLE 153 Risk Weighting

- 1 A risk weight of 2% will apply to collateral held by the QCCP and included in the calculation of trade positions in accordance with Article 144. Where the QCCP holds the collateral for other purposes, the relevant risk weights are to be applied.
- 2 A risk weight of 0% will apply to collateral that:
 - a. is provided as part trading activities;
 - b. a clearing member provides to the qualified central counterparty;
 - c. is held by a custodian; and
 - d. is held in such a way that they are not exposed to any insolvency risk with respect to the counterparty.
- 3 A risk weight of zero percent will also apply to collateral that:
 - a. is provided as part trading activities;
 - b. the clearing client provides to the qualified central counterparty, the clearing member and other clearing clients;
 - c. is held by a custodian; and
 - d. is held in such a way that they are not exposed to any insolvency risk with respect to the counterparty.
- 4 Where the QCCP holds the collateral on behalf of the clearing client and the collateral is exposed to insolvency risk with respect to the counterparty, the following risk weight apply:
 - a. 2 percent if the conditions for the application of Article 150(1) are met;
 - b. 4 percent if the conditions of Article 150(3) are met.
- 5 Custodians are persons who hold assets without being the beneficial owners of these assets, in particular trustees, intermediaries, pledgees and other secured creditors, provided that in the event of the insolvency or bankruptcy of the custodian, neither the claims of the custodian's creditors nor a suspension of the return of the assets can be asserted.

Section 6: Additional Capital

(Article 77e CAO)

ARTICLE 154

Specifically, the bank must determine whether additional capital is required for positions towards a central counterparty in accordance with Article 77e CAO in the following cases:

- a. if, as a result of transactions with a central counterparty, positions may arise for which the risk is insufficiently covered by the minimum capital requirement;
- b. if it is unclear whether or not the central counterparty qualifies as a qualifying central counterparty.

Chapter 12: CVA Risk

ARTICLE 155 Minimum capital requirement

- 1 Banks are not required to hold minimum capital for CVA risk in the case of:
 - a. derivatives that are settled directly through a qualified central counterparty;
 - b. derivatives whose settlement meets the conditions in Article 150(1)–(3);
 - c. securities financing transactions;
 - d. intragroup positions, except for positions of international systemically important banks at the level of the individual institution in accordance with Article 124(3)(c) and (d) CAO.
- 2 In accordance with number 50.5 para. 2 of the Basel minimum standard for the calculation of risk-weighted assets for market risks (MAR) in the version set out in Annex 1 CAO, FINMA may order capital requirements for CVA risk in securities financing transactions.
- 3 Subject to Article 156, the following provisions of the Basel minimum standards in the version set out in Annex 1 CAO are applicable for the use of the basic approach for CVA risk (BA-CVA) and the advanced approach for CVA risk (F-CVA):
 - a. number 50 MAR;
 - b. numbers 25.30-25.34 of the Basel minimum standard on risk-based capital requirements (RBC); and
 - c. number 51.12 CRE.

ARTICLE 156 Use of internal ratings in the basic approach for CVA risk

- 1 When applying the basic approach for CVA risk, internal ratings may be used only for positions towards counterparties without an external rating, provided that:
 - a. their use under the IRB in accordance with Article 50 CAO has been approved; and
 - b. the approved IRB explicitly covers these counterparties.
- 2 Where these conditions are not met, the bank must apply the risk weight for counterparties without an external rating (not rated) in accordance with number 50.16 MAR in the version set out in Annex 1 CAO for positions towards counterparties without an external rating.

Chapter 13: Entry into force**ARTICLE 157**

This Ordinance shall enter into force on 1 January 2025.

Annex 1 (Articles 5–10, 13, 14, 16, 17, 22, 24–26, 31–33 and 152)

Standardized approach for calculating the credit equivalents of derivatives

1 Calculating the credit equivalent

$$EAD = 1.4 \cdot (RC + PFE)$$

EAD Credit equivalent (Exposure at Default)

RC Regulatory replacement costs (Replacement Costs)

PFE Potential Future Exposure

2 Calculation of regulatory replacement costs for derivative transactions without remargining

$$RC = \max(V - CN, 0)RC$$

RC Regulatory replacement costs (Replacement Costs)

V Current positive or negative net market value of all derivative contracts in the netting set after taking into account valuation adjustments after accounting and valuation adjustments in accordance with Article 5b(3) CAO, with the exception of credit valuation adjustments due to the risk of counterparty default (credit valuation adjustment in accordance with Article 48(3) CAO) or due to own credit risk (debit valuation adjustment)

CN Net value of the collateral (net collateral value)

3 Calculation of the regulatory replacement costs for derivative transactions with remargining

$$RC = \max(V - CN; TH + MTA - NICA, 0)$$

RC Regulatory replacement costs (Replacement Costs)

V Current positive or negative net market value of all derivative contracts in the netting set after taking into account valuation adjustments after accounting and valuation adjustments in accordance with Article 5b(3) CAO, with the exception of credit valuation adjustments due to the risk of counterparty default (credit valuation adjustment in accordance with Article 48(3) CAO) or due to own credit risk (debit valuation adjustment)

CN Net value of collateral (net collateral value)

TH Threshold value of the margin agreements

MTA Minimum transfer amount of the margin agreements

NICA Net amount of the market price-independent collateral (Net Independent Collateral Amount)

4 Calculation of regulatory replacement costs at margin agreement level, with positive net value of collateral

$$RC = \max\left(\sum_N \max(V_N; 0) - CN; 0\right)$$

RC Regulatory replacement costs (Replacement Costs)

CN Net value of collateral (net collateral value)

V_N Net market value (net value) of the derivative contracts in netting set N after accounting valuation adjustments and valuation adjustments in accordance with Article 5b(3) CAO, with the exception of credit valuation adjustments due to the risk of counterparty default (credit valuation adjustment in accordance with Article 48(3) CAO) or due to own credit risk (debit valuation adjustment)

The totals are calculated for all netting sets contained in the margin agreement.

5 Calculation of regulatory replacement costs at margin agreement level, with negative net value of collateral

$$RC = \sum_N \max(V_N; 0) + \max(|CN| + \sum_N \min(V_N; 0); 0)$$

RC Regulatory replacement costs (Replacement Costs)

CN Net value of collateral (net collateral value)

V_N Net market value (net value) of the derivative contracts in netting set N after accounting valuation adjustments and valuation adjustments in accordance with Article 5b(3) CAO, with the exception of credit valuation adjustments due to the risk of counterparty default (credit valuation adjustment in accordance with Article 48(3) CAO) or due to own credit risk (debit valuation adjustment)

The totals are calculated for all netting sets contained in the margin agreement.

6 Calculation of the positive or negative net value of collateral

$$CN = C(1 - H_c) - E(1 + H_e)$$

CN Net value of collateral (net collateral value)

H_c e H_e Haircuts in accordance with Articles 15, 94 and 95 in conjunction with Article 64 and Annex 3 number 1 for the collateral received or provided

C current value of all collateral received (collateral)

E current value of all collateral provided (exposure)

7 Multiplier for calculating the potential increase in value

$$\text{Multiplier} = \min \left(1; 5\% + 95\% \cdot \exp \left(\frac{V - CN}{2 \cdot 95\% \cdot S} \right) \right)$$

exp() Exponential function

V Current positive or negative net market value of all derivative contracts in the netting set after taking into account valuation adjustments after accounting and valuation adjustments in accordance with Article 5b(3) CAO, with the exception of credit valuation adjustments due to the risk of counterparty default (credit valuation adjustment in accordance with Article 48(3) CAO) or due to own credit risk (debit valuation adjustment)

CN Net value of collateral (net collateral value)

S Aggregate add-on for the netting set

8 Aggregated multiplier to calculate the Potential Future Exposure at the margin agreement level

$$\text{Multiplier}^{\text{aggregated}} = \min \left(1; 5\% + 95\% \cdot \exp \left(\frac{\sum_N \max(V_N; 0) - CN}{2 \cdot 95\% \cdot \sum_N S_N} \right) \right)$$

exp() Exponential function

V_N Net market value (net value) of the derivative contracts in netting set N after accounting valuation adjustments and valuation adjustments in accordance with Article 5b(3) CAO, with the exception of credit valuation adjustments due to the risk of counterparty default (credit valuation adjustment in accordance with Article 48(3) CAO) or due to own credit risk (debit valuation adjustment)

CN Net value of collateral (net collateral value)

S_N Aggregate add-on for the netting set N

9 Supervisory duration

$$SD = \max \left\{ \frac{10 \text{ business days}}{1 \text{ year}}; 20 \cdot \left[\exp(-0.05 \cdot S) - \exp(-0.05 \cdot E) \right] \right\}$$

SD Supervisory duration

S Start time; corresponds to the period of time in years before the start of the time period to which the derivative transaction relates

E End time; corresponds to the period in years until the end of the time period to which the derivative transaction relates

I year The usual number of business days per year in accordance with the applicable market conventions must be applied.

Standard interest rate swaps and credit default swaps have a start time of zero and the end time corresponds to the residual term.

10 Maturity factor for derivatives without remargining

$$MF = \sqrt{\frac{\min(M; 1 \text{ year})}{1 \text{ year}}}$$

MF Maturity factor

M Maturity; corresponds to the greater of ten business days and the derivative's residual term, expressed in years in line with the applicable market conventions for the number of business days per year

11 Maturity factor for derivatives with remargining

$$MF = 1.5 \cdot \sqrt{\frac{MPOR}{1 \text{ year}}}$$

MPOR Margin period of risk

I year The usual number of business days per year in accordance with the applicable market conventions must be applied.

12 Regulatory delta for options

	Purchased option	Sold option
Call option	$+\Phi\left(\frac{\ln\left(\frac{P}{K}\right) + 0,5 \cdot \sigma^2 \cdot T}{\sigma \cdot \sqrt{T}}\right)$	$-\Phi\left(\frac{-\ln\left(\frac{P}{K}\right) - 0,5 \cdot \sigma^2 \cdot T}{\sigma \cdot \sqrt{T}}\right)$
Put option	$-\Phi\left(\frac{-\ln\left(\frac{P}{K}\right) - 0,5 \cdot \sigma^2 \cdot T}{\sigma \cdot \sqrt{T}}\right)$	$+\Phi\left(\frac{\ln\left(\frac{P}{K}\right) + 0,5 \cdot \sigma^2 \cdot T}{\sigma \cdot \sqrt{T}}\right)$

$\Phi(\dots)$ cumulative distribution function of the standard normal distribution,

$\ln(\dots)$ natural logarithm function

K the option's strike price

P The market value of the underlying or, in the case of Asian options, the current amount of the mean value underlying the payout profile. For interest rate options in currencies with negative market interest rates or for contracts with negative exercise interest rates, P must be replaced by $P+\lambda$ and K by $K+\lambda$, where $P+\lambda > 0$ and $K+\lambda > 0$. For all interest rate options in the same currency, λ has the same value or is to be calculated on an optionspecific basis as $\lambda = \max(0.001 - \min(P, K), 0)$.

σ Volatility in accordance with number 15

T Residual term in years until the option's latest contractual exercise date (time to maturity)

13 Regulatory delta for CDO tranches with the bank as protection buyer

$$\delta = \frac{+15}{(1 + 14 \cdot A) \cdot (1 + 14 \cdot D)}$$

A Attachment point of the CDO tranche with credit protection

D Detachment point of the CDO tranche with credit protection

A and D denote the attachment and detachment points of the CDO tranche at which the credit protection begins and ends. They are expressed as numbers between zero and one and correspond to the respective quantiles of the loss distribution of the pool of positions underlying the CDO. In the case of nth-to-default swaps with a pool of m reference debtors, $A = (N - 1)/m$ and $D = N/m$.

14 Regulatory delta for CDO tranches with the bank as protection provider

$$\delta = \frac{-15}{(1 + 14 \cdot A) \cdot (1 + 14 \cdot D)}$$

A Attachment point of the CDO tranche with credit protection

D Detachment point of the CDO tranche with credit protection

A and D denote the attachment and detachment points of the CDO tranche at which the credit protection begins and ends. They are expressed as numbers between zero and one and correspond to the respective quantiles of the loss distribution of the pool of positions underlying the CDO. In the case of nth-to-default swaps with a pool of m reference debtors, $A = (N - 1)/m$ and $D = N/m$.

15 Scaling factors, correlations and volatilities per underlying

Underlying			Scaling factor in percent	Correlation ($\rho_{i,j}, \rho_{k,l}$), in percent	Volatility (σ), in percent
Interest			0.50		50
Currencies			4.00		15
Credit derivatives	Reference obligors	AAA-AA	0.38	50	100
		A	0.42	50	100
		BBB	0.54	50	100
		BB	1.06	50	100
		B	1.60	50	100
		CCC	6.00	50	100
		Without Rating	1.06	50	100
	Index	AAA-BBB	0.38	80	80
		Other	1.06	80	80
Equities	Single name securities		32	50	120
	Index		20	80	75
Commodities	Electricity		40	40	150
	All others		18	40	70

16 Partial netting of maturity-band-specific SEN1, SEN2 and SEN3 for interest rate derivatives

$$Addon_{Credit} = \sqrt{SEN_1^2 + SEN_2^2 + SEN_3^2 + 1.4 \cdot SEN_1 \cdot SEN_2 + 1.4 \cdot SEN_2 \cdot SEN_3 + 0.6 \cdot SEN_1 \cdot SEN_3}$$

17 Partial netting of SENs for credit derivatives

$$Addon_{Credit} = \sqrt{\left(\sum_i \rho_i \cdot SEN_i \right)^2 + \sum_i (1 - \rho_i^2) \cdot SEN_i^2}$$

The totals are calculated for all reference debtors and indices i , with the associated correlation parameter ρ_i in accordance with number 15 and with SEN_i as the fully offset SEN associated with the i th reference debtor or index.

18 Partial netting of SEN for equity derivatives

$$Addon_{Equity} = \sqrt{\left(\sum_j \rho_j \cdot SEN_j \right)^2 + \sum_j (1 - \rho_j^2) \cdot SEN_j^2}$$

The total is calculated across all individual securities and indices j , with the associated correlation parameter ρ_j in accordance with number 15 and with SEN_j as the fully netted SEN associated with the j th individual security or index.

19 Partial netting of SEN for commodity derivatives

$$Addon_{Commodity} = \sqrt{\left(\sum_k \rho_k \cdot SEN_k \right)^2 + \sum_k (1 - \rho_k^2) \cdot SEN_k^2}$$

The totals are calculated for all commodity types k within the respective commodity group, with the associated correlation parameter ρ_k in accordance with number 15 and with SEN_k as the fully netted SEN associated with the commodity type.

Annex 2 (Articles 36(1), 39(1) and 2(1))

Current exposure approach for calculating the credit equivalents of derivatives

1 Calculation of the credit equivalent for netting sets

$$EAD = \max \left\{ 0 ; 1.4 \left[\max(RC + E_A; 0) + Addon - C_A \right] \right\}$$

EAD Credit equivalent (Exposure at Default)

RC Net replacement cost of derivatives

EA Adjusted exposure of the collateral provided in accordance with the comprehensive approach

CA Adjusted value of collateral received in accordance with the comprehensive approach

Addon Net value add-on for netting sets in accordance with Article 40

2 Rates for the add-on

underlying of the derivative		rate for the add-on in per cent, by residual maturity					
		Derivatives without daily remargining or derivatives not meeting the conditions set out in Article 39(2)			Derivatives with daily remargining that meet the conditions set out in Article 39(2)		
		≤ 1 year	> 1 year	> 5 years	≤ 1 year	> 1 year	> 5 years
		and ≤ 5 years			and ≤ 5 years		
2.1	Interest	0.3	1.8	5.3	0.1	0.5	1.6
2.2	Foreign currencies and gold	3.5	4.0	4.0	1.2	1.2	1.2
2.3	Equities	27.7	32.0	32.0	9.6	9.6	9.6
2.4	Precious metals other than gold	15.6	18.0	18.0	5.4	5.4	5.4
2.5	Other commodities	15.6	18.0	18.0	5.4	5.4	5.4
2.6	Credit derivatives with reference obligation of the category "central governments and central banks" or "qualified interest rate instruments" as per Annex 5 CAO	0.3	2.0	5.7	0.1	0.6	1.7
2.7	Credit derivatives with reference obligation of the category "other" as per Annex 5 CAO	1.0	5.8	16.9	0.4	1.7	5.1

3 Calculation of the net add-on

$$NA = 0.4 \cdot SA + 0.6 \cdot \left(SA \cdot \frac{\max(0; RC)}{SRCp} \right)$$

NA Net add-on

SA Sum of the add-ons calculated per derivative in accordance with Article 38

RC Net replacement cost of derivatives

SRCp Sum of the positive replacement costs

Annex 3 (Articles 64(2), 66(2), 77, 94(1) and (4), 95, 97(1), 98(1) and (2), 99(1) and 100(3))

Risk-mitigating Measures

1 Credit protection for a position in the case of a maturity mismatch

$$P_a = P \cdot \frac{t - 0.25}{T - 0.25}$$

P_a Value of the credit protection adjusted for maturity mismatch

P Credit protection amount adjusted for any haircuts

T the smaller value of five years and the position's residual maturity, expressed in years

t the smaller value of T and the protection's residual maturity, expressed in years

2 Positions to be risk weighted after risk mitigation under the comprehensive approach

$$E^* = \max\left(0; E(1 + H_e) - C(1 - H_c - H_{fx})\right)$$

E^* Exposure after risk mitigation by financial collateral (adjusted exposure)

E Exposure

H_e Haircut for the claim in accordance with Articles 94–96

C Current value of the collateral received, adjusted in accordance with Article 64 for maturity mismatches

H_c Haircut for the collateral received in accordance with Articles 94–96

H_{fx} Haircut for currency mismatches between claim and collateral

3 Hedging of a position in the event of a currency mismatch

$$G_a = G \cdot (1 - H_{fx})$$

G_a Adjusted nominal amount of the credit protection

G Nominal Amount of the Credit Protection

H_{fx} Haircut in the event of currency mismatch between exposure and protection; a holding period of ten business days, daily mark-to-market valuation and daily remargining are subject to a haircut of 8 per cent; in other cases the haircut is to be adjusted in accordance with Article 95.

4 Standard haircuts under the comprehensive approach

Eligible protection as defined in Article 85		Residual term	Central governments, central banks and supranational organizations, as well as public-law entities that can be treated like central governments, and multilateral development banks in accordance with Annex 5	Other issuers	Securitization positions
4.1	Debt instruments in rating classes 1 and 2 in accordance with Annex 1 CAO and short-term debt instruments in class 1 in accordance with Article 64a(2) CAO	≤ 1 year	0.5%	1%	2%
		> 1 year ≤ 3 years	2%	3%	8%
		> 3 years ≤ 5 years		4%	
		> 5 years ≤ 10 years	4%	6%	16%
		> 10 years		12%	
4.2	Debt instruments in rating classes 3 and 4 in accordance with Annex 2 CAO, short-term debt instruments in classes 2 and 3 in accordance with Article 64a(2) CAO and bank debt instruments without a rating in accordance with Article 85(2)(c), including fiduciary deposits with another bank	≤ 1 year	1%	2%	4%
		> 1 year ≤ 3 years	3%	4%	12%
		> 3 years ≤ 5 years		6%	
		> 5 years ≤ 10 years	6%	12%	24%
		> 10 years		20%	
4.3	Debt securities in rating class 5 in accordance with Annex 2 CAO	All	15%	not eligible	not eligible
4.4	Equity instruments included in one of the main indices as defined in Annex 4, including convertible bonds, and gold		20%		
4.5	Other equities listed on an established stock exchange, including convertible bonds, and other collateral		30%		
4.6	Mutual funds/UCITS		Highest standard haircut applicable to a security in which the fund may invest, or weighted average of the standard haircuts for the instruments held by the fund, if the bank could apply the look-through approach in accordance with Article 59a(1)(a) CAO.		

Eligible protection as defined in Article 85	Residual term	Central governments, central banks and supranational organizations, as well as public-law entities that can be treated like central governments, and multilateral development banks in accordance with Annex 5	Other issuers	Securitization positions
4.7 Cash collateral in the same currency, including medium-term notes or comparable instruments issued by the lending bank, as well as fiduciary deposits with the lending or another bank		0%		

5 Standard haircut for a basket of assets

$$H = \sum_i a_i H_i$$

a_i proportion of the i-th asset relative to the basket's total value

H_i the standard haircut applicable to the asset

6 Adjustment to haircuts

b. For eligible collateral as defined in Articles 92 and 93

$$H = H_{10} \cdot \sqrt{\frac{NR + (TM - 1)}{10}}$$

H_{10} Standard haircut for the instrument

NR Number of business days between the margin call obligations for capital market transactions or the revaluations for loans with the use of collateral

TM Minimum holding period for the transaction concerned

6.2 For eligible pledged pension assets in accordance with Article 98

$$H = H_{20} \cdot \sqrt{\frac{NR + (20 - 1)}{20}}$$

H_{20} haircut for the pension assets

NR Number of business days between collateral revaluations

7 Taking into account of netting agreements

$$E^* = \max \left\{ 0; \sum_i E_i - \sum_j C_j + 0.4N + 0.6 \frac{B}{\sqrt{n}} + \sum_f (E_f \cdot H_f) \right\}$$

E^* Exposure value of the netting set after risk mitigation

$\sum_i E_i$ Current exposure of all funds borrowed under the clearing agreement with the counterparty, and securities borrowed or sold under a repurchase agreement or otherwise provided

$\sum_j C_j$ Current value of all funds borrowed under the clearing agreement from the counterparty, and securities borrowed or sold under a repurchase agreement or otherwise held as collateral

n Number of securities in the netting set, not counting securities whose position value is less than 10 percent of the largest position value E_s^{max} .

E_f absolute amount of the net position in currency f , which is not the settlement currency

H_f Haircut for currency mismatches for currency f

$N = |\sum_s E_s H_s|$ Net claim

$B = \sum_s E_s / H_s$ Gross claim

$E_s > 0$ is the current net value of the s -th security position in the netting set and H_s is the security-specific haircut; this haircut is positive for securities lent or sold or otherwise provided under a repurchase agreement and negative for securities borrowed or purchased or otherwise obtained as collateral under a repurchase agreement.

8 Haircuts for eligible pension assets

Type of asset	Haircut
Pillar 2	
8.1 Pension fund assets, vested benefits accounts	0%
8.2 Vested benefits foundations with fund-based products	40%
Pillar 3a	
8.3 Account balance of a foundation at the lending bank	0%
8.4 Account balances of a foundation not at the lending bank	20%
8.5 Investment-fund products for foundations	40%
8.6 Insurance policies: Surrender value in the case of a fund-based product	40%
8.7 Insurance policies: Surrender value for products other than fund-based products	20%

Annex 4 (Articles 85(4) and 92(1)(b))

Main indices

Index	Country / Region
AEX	Netherlands
Austrian Traded Index	Austria
BEL 20	Belgium
CETOP20	Central Europe
CNX 100	India
CSI 300 Index	China
EGX 30	Egypt
FTSE 350	United Kingdom
FTSE All World Europe	Europe
FTSE All-World Index	World
FTSE Bursa Malaysia KLCI	Malaysia
FTSE MIB	Italy
FTSE Nasdaq Dubai UAE 20 Index	United Arab Emirates
FTSE RAFI Emerging Index	Emerging markets
FTSE Straits Times Index	Singapore
FTSE/JSE Capped Top 40	South Africa
FTSE/JSE Industrial 25	South Africa
Hang Seng Index	Hong Kong
Hang Seng Mainland 100 Index	Hong Kong
HDAX	Germany
IBEX 35	Spain
IBOVESPA	Brazil
ISEQ 20	Ireland
KOSPI 100	South Korea
MSCI ACWI Index	World
MSCI EM 50	Emerging markets
MSCI Russia Index	Russia
NASDAQ-100	USA
Nikkei 300	Japan
NYSE ARCA China Index	China
OBX	Norway
OMX Copenhagen 25	Denmark
OMX Helsinki 25	Finland
OMXS60	Sweden
Qatar Exchange General Index	Qatar
S&P 500	USA
S&P BSE 100	India

Index	Country / Region
S&P Latin America 40	Latin America
S&P/ASX 100	Australia
S&P/BMV IPC	Mexico
S&P/NZX 10	New Zealand
S&P/TSX 60	Canada
SBF 120	France
SET 50	Thailand
SMI Expanded	Switzerland
STOXX Asia/Pacific 600	Asia-Pacific
STOXX Europe 600	Europe
TOPIX Mid 400	Japan
TSEC Taiwan 50	Taiwan
WIG20	Poland

Annex 5 (Article 106)

Multilateral Development Banks

The following are deemed to be multilateral development banks as per Annex 2, number 3.2 of the CAO:

1. the World Bank Group, including the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA)
2. the Asian Development Bank (ADB)
3. the African Development Bank (AfDB)
4. the European Bank for Reconstruction and Development (EBRD)
5. the Inter-American Development Bank (IADB)
6. the European Investment Bank (EIB)
7. the European Investment Fund (EIF)
8. the Nordic Investment Bank (NIB)
9. the Caribbean Development Bank (CDB)
10. the Islamic Development Bank (IDB)
11. the Council of Europe Development Bank (CEB)
12. the International Finance Facility for Immunization (IFFIm)
13. the Asian Infrastructure Investment Bank (AIIB)

Annex 6 (Article 125(1))

IRB: Calculation of the correlation R for the risk weighting of corporates

$$R = 0.12 \cdot \frac{(1 - e^{-50 \cdot PD})}{(1 - e^{-50})} + 0.24 \cdot \left(1 - \frac{(1 - e^{-50 \cdot PD})}{(1 - e^{-50})} \right) - 0.04 \cdot \left(1 - \frac{(S/1.5 - 5)}{45} \right)$$

R Correlation

S Sales in Swiss francs

PD Probability of default

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