

EESTI PANK
GOVERNOR'S DECREE No. 13
29 December 2006

Procedure for application and calculation of prudential ratios of credit institutions and consolidation groups of credit institutions

Amended and supplemented by the following Acts:

[Eesti Pank Governor's Decree No 18, 26.11.2007](#) Amendments to Eesti Pank Governor's Decree No 13 of 29 December 2006 "Procedure for application and calculation of prudential ratios of credit institutions and consolidation groups of credit institutions"

[Eesti Pank Governor's Decree No 7, 21.07.2010](#) Amendments to Eesti Pank Governor's Decree No. 13 of 29 December 2006 "Procedure for application and calculation of prudential ratios of credit institutions and consolidation groups of credit institutions"

[Eesti Pank Governor's Decree No 30, 21.12.2010](#) Amendments to Eesti Pank Governor's Decree No. 13 of 29 December 2006 "Procedure for application and calculation of prudential ratios of credit institutions and consolidation groups of credit institutions"

The Decree is established under subsections 71 (7), 79 (6)-(8), 85 (9) and 86¹ (3) of the Credit Institutions Act.

Chapter 1
GENERAL PROVISIONS

§ 1. Scope of Decree

This Decree provides for the procedure for application and calculation of prudential ratios of credit institutions and consolidation groups of credit institutions, including:

- 1) the procedure for calculating own funds;
- 2) the rate of capital requirement for credit risk;
- 3) the procedure and specifications of calculating exposure values, the risk weights and the methodology for determining thereof, and the basis for using the assessments of credit assessment agencies for the purpose of calculating the capital requirement for credit risk under the Standardised Approach;
- 4) the procedure and specifications of calculating exposure values, the methodology for calculating risk-weighted exposure amounts and the capital requirement for credit risk, and the minimum requirements on credit risk parameters and assessment thereof for the purpose of calculating the capital requirement for credit risk under the Internal Ratings Based Approach;
- 5) a list of instruments intended to mitigate credit risk to be recognised in the calculation of the capital requirement for credit risk, as well as a list of credit protection providers, eligibility criteria established with regard to them, and the methodology for calculating the effects of credit risk mitigation;
- 6) the procedure for calculating the capital requirement for foreign-exchange risk;
- 7) the procedure for calculating the capital requirement for commodities risk;
- 8) the procedure for calculating capital requirements against a position risk, settlement/delivery risk and counterparty credit risk associated with the trade portfolio;
- 9) the procedure for calculating capital requirements for trade portfolio exposures exceeding the limits of concentration of exposures;
- 10) the methodology for calculating a credit institution's average net income from operations over a period of three years, and the procedure for calculating the capital requirement for operational risk under the Basic Indicator Approach;
- 11) the criteria for mapping business lines, the requirements on calculating the capital requirement for business lines' operational risk, and the methodology for calculating the capital requirement for operational risk under the Standardised Approach and the Alternative Standardised Approach;
- 12) the methodology for calculating the capital requirement, and the requirements on risk-hedging instruments or risk-

transferring instruments to be recognised in the calculation of the capital requirement for operational risk under the Advanced Measurement Approach;

13) the deductions to be made in the calculation of the concentration of exposures and the procedure for calculating the limits of the concentration of exposures;

14) the procedure for calculating limitations on the holdings of credit institutions in companies.

§ 2. Application of Decree

This Decree shall be applied to credit institutions, as defined in subsection 3 (1) of the Credit Institutions Act, on an individual basis (hereinafter referred to as "solo basis") and to the consolidation groups of credit institutions on a consolidated basis.

§ 3. Provisions to be applied with the approval of the Financial Supervision Authority

The Financial Supervision Authority shall make a decision regarding the grant of or refusal to grant approval to rely on the methods and exceptions provided for in this Decree, which are to be applied with the approval of the Financial Supervision Authority, within one month after the receipt of all the required documents and information, but not later than within three months after the receipt of the relevant application, unless otherwise established in this Decree.

§ 4. General definitions

For the purposes of this Decree, the following general definitions shall apply:

- 1) "Member State" means a member state of the European Economic Area (EEA)
- 2) "credit institution" means a company specified in subsection 3 (1) of the Credit Institutions Act;
- 3) "investment firm" means a company specified in section 40 of the Securities Market Act;
- 4) "financial institution" means a company specified in section 5 of the Credit Institutions Act;
- 5) "competent authority" means an institution which pursuant to the legislation of its country of location is entitled to exercise state financial supervision over credit institutions and investment firms;
- 6) "recognised exchange" means an exchange which is recognised by the competent authority of the home country of the exchange and which functions regularly, has rules, issued or approved by the competent authority of the home country of the exchange, defining the conditions for the operation of the exchange, the conditions of access to the exchange as well as the conditions for the tradable instruments, and which uses a settlement system that, in the opinion of the competent authority, provides for the compliance with obligations arising from securities transactions and for the contracts to be subject to daily margin requirements in the case of transactions concluded with derivative instruments;
- 7) "market risk" means interest rate risks and equity position risks associated with a trade portfolio and foreign-exchange risks and commodities risks arising from activities in general;
- 8) "foreign-exchange risk" means the risk of suffering damage due to fluctuations of foreign exchange rates;
- 9) "position risk" comprises the general risk and the specific risk, with the "general risk" being understood as a risk arising from general market developments, and the "specific risk" being understood as a risk arising from factors associated with the issuer of instruments and, in the case of derivative instruments, the issuer of underlying instruments;
- 10) "general interest rate risk" means a risk arising from changes in the market value of a debt instrument due to factors associated with the market as a whole;
- 11) "specific interest rate risk" means a risk arising from changes in the market value of a debt instrument due to factors associated with the issuer;
- 12) "general equity position risk" means a risk arising from changes in the market value of an equity due to factors associated with the market as a whole;
- 13) "specific equity position risk" means a risk arising from changes in the market value of an equity due to factors associated with the issuer;
- 14) "counterparty credit risk" or "CCR" means the risk that the other party to the transaction fails to perform his contractual obligations in the case of transactions related to the trade portfolio or to OTC derivative instruments;
- 15) "central counterparty" means an entity that legally interposes itself between counterparties to contracts traded

- within one or more financial markets, becoming the buyer to every seller and the seller to every buyer;
- 16) "position" means the amount of claims or obligations in a certain security, commodity or currency;
- 17) "long position" means a position which expresses the right or obligation to obtain money, securities or other assets;
- 18) "short position" means a position which expresses the right or obligation to transfer money, securities or other assets;
- 19) "exposure" means the maximum loss which may arise upon sale of assets or compliance with off-balance sheet liabilities or in the event of counterparty default.

§ 5. Definitions used with regard to transactions

For the purposes of this Decree, the following definitions shall apply to transactions:

- 1) "financial instrument" means any instrument that gives rise to both a financial asset of one party and a financial liability or equity instrument of another party;
- 2) "exchange-traded derivatives" means derivative instruments the conditions for which are provided for in the exchange regulations concerning derivative instruments and to which daily margin requirements apply;
- 3) "over-the-counter or OTC derivative instruments" means derivative instruments which are traded outside an exchange;
- 4) "long settlement transaction" means a transaction where a credit institution undertakes to deliver a financial instrument against another financial instrument at a settlement or delivery date that is contractually specified as more than the shorter of the market standard for this particular transaction, but at least five business days after the date on which the credit institution enters into the transaction;
- 5) "margin lending transaction" means a transaction in which a credit institution extends credit in connection with the purchase, sale, carrying or trading of securities; margin lending transactions do not include other loans that happen to be secured by securities collateral;
- 6) "option" means an agreement as a result of which the seller of an option has the obligation and the purchaser of an option (holder) has the right to purchase (call option) or sell (put option) assets at a certain price at the date of expiry of the agreement (European option) or at any time as of entry into the agreement until the expiry thereof (American option); instruments similar to options (e.g. warrants) shall be treated analogously to options;
- 7) "warrant" means a security which grants to the holder thereof the right to purchase assets at a determined price until the maturity date or at the maturity date;
- 8) "reverse repurchase agreement" means any agreement in which an accountable credit institution purchases securities or commodities or guaranteed rights relating to title to securities or commodities, where that guarantee is issued by a recognised exchange or depository which holds the rights to the securities or commodities, subject to a commitment to resell them or substituted securities or commodities of the same description at a specified price on a future date specified; a reverse repurchase agreement does not allow the purchase or pledge of a particular security or commodity to more than one counterparty at one time;
- 9) "repurchase agreement" means any agreement in which an accountable credit institution sells securities or commodities or guaranteed rights relating to title to securities or commodities, where that guarantee is issued by a recognised exchange or depository which holds the rights to the securities or commodities, subject to a commitment to repurchase them or substituted securities or commodities of the same description at a specified price on a future date specified; a repurchase agreement does not allow the sale or pledge of a particular security or commodity to more than one counterparty at one time;
- 10) "securities of the same kind" are debt securities which are issued by the same issuer in the course of the same issue in the same currency with the same yield and maturity, or equities which are issued by the same issuer and which, according to the articles of association or internal regulations of the company in question, grant the same voting rights and the right to the assets of the issuer when these assets are distributed;
- 11) "derivative instruments" means financial instruments whose value depends on the value of an interest rate, a security, a commodity, a currency exchange rate, an index of prices or rates, a credit assessment or a credit index or of a similar underlying instrument, and which do not require an initial investment or require just a small initial investment when compared to other instruments, which react similarly to market changes and under the terms and conditions of which the rights and obligations of the counterparties will be settled in the future;
- 12) "convertible security" means a security which its holder can exchange against another security, usually issued by

the same issuer;

13) "securities" means the instruments specified in section 2 of the Securities Market Act;

14) "commodity" means a physical product which is traded or can be traded in a secondary market, e.g. agricultural produce, minerals (including oil) and precious metals (except gold in bullion form) which are traded in international markets;

15) "available-for-sale financial instruments" means financial assets other than derivative instruments, which, pursuant to the international financial reporting standards (IFRS), are classified as available-for-sale and which are not classified as loans or receivables or as financial assets recognised in fair value in the income statement.

Chapter 2 OWN FUNDS

§ 6. Principles applicable to the calculation of own funds

The provisions of sections 72-78 of the Credit Institutions Act shall apply to the calculation of own funds.

§ 7. Determining the amounts of the components of own funds

(1) Components of own funds shall be taken into account in the carrying amount, being based on the balance sheet of a credit institution, unless otherwise established in the Credit Institutions Act or in this Chapter.

(2) Unrealised gains arising in the recognition of the following instruments shall be deducted from profits included in Tier 1 own funds:

- 1) investment properties;
- 2) investments in subsidiaries and affiliates reported in fair value, which have not been deducted from own funds;
- 3) cash flow hedges of financial instruments;
- 4) securitised assets, if the credit institution is the originator of claims underlying the securitisation.

(3) In the case of instruments specified in clauses 1) and 2) of subsection (2) of this section, unrealised losses associated with instruments belonging in the same group of instruments shall not be deducted from unrealised gains; in the case of instruments specified in clauses 3) and 4), the difference between the unrealised gains and unrealised losses associated with these instruments shall be deducted from Tier 1 own funds unless the difference is negative.

(4) Of the portion of gains deducted from Tier 1 own funds as established in clauses 1) and 2) of subsection (2) of this section, 45% may be included in Tier 2 own funds.

(5) 45% of unrealised gains arising in the recognition of the following instruments in the revaluation reserve of the balance sheet of a credit institution shall be included in Tier 2 own funds:

- 1) available-for-sale equity instruments;
- 2) available-for-sale debt instruments.

(6) In the case of instruments specified in clause 1) of subsection (5) of this section, unrealised losses associated with instruments belonging in the same group of instruments shall not be deducted from unrealised gains to be included in own funds.

(7) In the case of instruments specified in clause 2) of subsection (5) of this section, the difference between the unrealised gains and unrealised losses associated with these instruments shall be taken into account unless the difference is negative.

(8) Gains or losses on cash flow hedges of financial instruments measured at amortised cost, or gains or losses on the changes of the value of any liabilities valued at fair value that are due to changes in the credit institution's own credit standing shall not be included in own funds.

§ 8. Calculation of the own funds of credit institutions and consolidation groups of credit institutions

(1) Calculations of the minimum amount of own funds specified in subsection 78 (9) of the Credit Institutions Act, the limitations on holdings specified in subsections 81 (2) and (3) of the Credit Institutions Act and the limits of concentration of exposures specified in subsections 85 (4)-(7) of the Credit Institutions Act shall be based on the sum of Tier 1 own funds and Tier 2 own funds specified in sections 73 and 74 of the Credit Institutions Act, respectively, excluding the deductions established in section 75.

(2) A calculation of the capital adequacy indicator as specified in subsections 79 (1) and (2) of the Credit Institutions Act shall be based on the sum of Tier 1 own funds, Tier 2 own funds and Tier 3 own funds specified in sections 73, 74 and 77 of the Credit Institutions Act, respectively, excluding the deductions established in section 75.

(3) In calculating the own funds under subsections (1) and (2) of this section, the requirements established in section 7 of this Decree shall be adhered to and the restrictions stipulated in section 78 of the Credit Institutions Act shall be taken into account.

(4) Calculation of the limits of concentration of exposures and the limitations on holdings of the consolidation group of a credit institution shall be based on the amount of own funds calculated pursuant to the procedure established in subsection (1) of this section to which the components of own funds specified in section 77¹ of the Credit Institutions Act shall be added.

(5) A calculation of the capital adequacy indicator of the consolidation group of a credit institution shall be based on the sum of Tier 1 own funds specified in section 73, Tier 2 own funds specified in section 74, Tier 3 own funds specified in section 77 and the components of own funds listed in section 77¹ of the Credit Institutions Act, excluding the holdings in insurance and reinsurance companies and insurance holding companies specified in clause 75 (1) 3) of the Credit Institutions Act.

Chapter 3 CAPITAL ADEQUACY

Division 1 General Provisions

§ 9. Capital adequacy

(1) The own funds of a credit institution and its consolidation group, calculated pursuant to the procedure established in subsections 8 (3) and (5) of this Decree, shall at all times be equal to or exceed the sum of capital requirements specified in subsection 79 (2) of the Credit Institutions Act.

(2) In calculating the sum of capital requirements of a credit institution, the following estimates shall be summed up:

- 1) the capital requirement for credit risk calculated pursuant to the procedure established in Division 2 of this Chapter;
- 2) the capital requirement for foreign-exchange risk calculated pursuant to the procedure established in Division 4 of this Chapter and multiplied by a coefficient of 1.25;
- 3) the capital requirement for commodities risk calculated pursuant to the procedure established in Division 5 of this Chapter and multiplied by a coefficient of 1.25;
- 4) the capital requirements for trade portfolio position risk and settlement/delivery and counterparty credit risks calculated pursuant to the procedure established in Division 6 of this Chapter and multiplied by a coefficient of 1.25;
- 5) the capital requirement for operational risk calculated pursuant to the procedure established in Division 7 of this Chapter.

(3) A credit institution that has been released from the obligation to calculate capital requirements for trade portfolio position risk and settlement/delivery and counterparty credit risks under subsection 79 (3) of the Credit Institutions Act shall calculate the capital requirement for credit risk on trade portfolio positions pursuant to the procedure established in Division 2 of this Chapter.

§ 10. Calculation of capital requirements on a consolidated basis

- (1) The parent undertaking of the consolidation group of a credit institution shall calculate the capital requirements specified in subsection 9 (1) on the basis of its consolidated financial position.
- (2) A credit institution whose parent undertaking is a financial holding company operating in the same Member State shall calculate the capital requirements specified in subsection 9 (1) on the basis of the consolidated financial position of the financial holding company.
- (3) In calculating the capital requirements of the consolidation group of a credit institution, the positions of an insurance company within the group of the credit institution shall not be taken into account.
- (4) The sum of capital requirements of the consolidation group of a credit institution shall be calculated pursuant to the procedure established in subsection 9 (2), applying the capital requirement rates established in this Decree and the coefficient established in subsection 9 (2) or the coefficient calculated under subsection 11 (4).
- (5) In the case that a company belonging to the consolidation group has been released from the obligation to calculate capital requirements for trade portfolio settlement/delivery and counterparty credit risks under subsection 79 (3) of the Credit Institutions Act or the relevant legislation of a Member State, that credit institution's capital requirement for credit risk shall be calculated on settlement/delivery and counterparty credit risk positions pursuant to the procedure established in Division 2 of this Chapter.

§ 11. Calculation of capital requirements on the positions of foreign subsidiaries

- (1) Where a subsidiary established in the territory of a Member State, which belongs in the consolidation group of the credit institution and which is subject to financial supervision, calculates capital requirements in that Member State, the calculation of the capital requirements of the consolidation group shall take into account the risk-weighted exposure amounts and the minimum capital requirements calculated on the subsidiary's positions pursuant to the procedure applicable in the home Member State of the subsidiary.
- (2) Where the supervisory and regulatory requirements applied to the subsidiary belonging to the consolidation group of the credit institution, which is established in a third country, are at least equivalent to those applied in the Member States, the calculation of the capital requirements of the consolidation group may, subject to the prior written approval of the Financial Supervision Authority, take into account the risk-weighted exposure amounts and the basic capital requirements calculated on the subsidiary's positions pursuant to the procedure applicable in that third country.
- (3) Where the capital requirements calculated on the positions of a foreign subsidiary pursuant to the procedure applicable in the subsidiary's country of location correspond, in the case of the capital requirement for credit risk, to a capital requirement rate lower than that established in section 14, all the capital requirements of that subsidiary shall be multiplied by a coefficient resulting from the division of the rate of capital requirement for credit risk established in section 14 by the rate of capital requirement for credit risk applicable in the subsidiary's country of location.

§ 12. Calculation of consolidated capital requirements for credit risk, settlement/delivery risk, counterparty credit risk and operational risk

For the purposes of calculating consolidated capital requirements for a credit risk, settlement/delivery risk, counterparty credit risk and operational risk, capital requirements shall be calculated on the pertinent positions of all companies within the consolidation group, excluding mutual positions of companies within the consolidation group, pursuant to the procedure established in Division 2, Subdivision 3 of Division 6, and Division 7 of this Chapter.

§ 13. Calculation of consolidated capital requirements for foreign-exchange risk, commodities risk and interest rate and equity position risks associated with trade portfolios

- (1) For the purposes of calculating consolidated capital requirements for foreign-exchange risk, commodities risk and

interest rate and equity position risks associated with trade portfolios, capital requirements shall be calculated on the pertinent positions of all companies within the consolidation group pursuant to the procedure established in Division 4, Division 5 and Subdivision 2 of Division 6 of this Chapter.

(2) In calculating the consolidated capital requirements for foreign-exchange risk, commodities risk and interest rate and equity position risks associated with trade portfolios, the positions of companies within the consolidation group may be offset against each other pursuant to the procedure established in Division 4, Division 5 and Subdivision 2 of Division 6 of this Chapter, provided that:

- 1) the company in question is established in Estonia, is subject to financial supervision and complies, on a solo basis, with regulatory and supervisory requirements that are at least equivalent to those stipulated in this Decree;
- 2) the company in question is established in the territory of a Member State, is subject to financial supervision and complies, on a solo basis, with the minimum regulatory and supervisory requirements stipulated in the legislation of the European Community;
- 3) where the company in question is established in a third country, its positions may be offset against the positions of other companies with the prior written approval of the Financial Supervision Authority on the condition that the supervisory and regulatory requirements applied to that company are at least equivalent to those applied in the territories of the Member States and no restrictions exist in the home country of that company which would materially hinder the movement of capital within the group;
- 4) where the company in question is established in Estonia and is not subject to financial supervision, its positions may be offset against the positions of an accountable credit institution or of a credit institution that meets the requirements established in clauses 1) and 2) of this subsection on the condition that there is a satisfactory allocation of capital within the group and that either legislation or a contract provides for mutual financial support.

Division 2

Capital requirement for credit risk

§ 14. Capital requirement for credit risk

The rate of capital requirement for credit risk shall be 10% of the value of risk-weighted exposure amounts calculated pursuant to the procedure established in this Division.

§ 15. Definitions used in this Division

For the purposes of this Division, the following definitions shall apply:

- 1) "contingent claims" are potential claims arising from off-balance sheet liabilities and derivative instruments of a credit institution;
- 2) "residential real estate" means a building or apartment ownership occupied, to be occupied, let or to be let by the owner; "commercial real estate" means any real estate used for commercial purposes;
- 3) "dilution risk" means the risk that the amount of a purchased claim is reduced as a result of agreements between the seller of the claim and the obligor;
- 4) "loss" means economic loss, including material discount effects, and material direct and indirect costs associated with collecting on the claim.

§ 16. Abbreviated definitions used in this Division

(1) For the classes of exposures used in the calculation of the capital requirement for credit risk under the Standardised Approach, as specified in clauses 86³ (1) 1)-11) and 14) of the Credit Institutions Act, the following abbreviated definitions shall be used in this Division:

- 1) claims or contingent claims on central governments or central banks - central governments and central banks;
- 2) claims or contingent claims on regional governments or local authorities - regional governments and local authorities;
- 3) claims or contingent claims on administrative bodies and non-commercial institutions and associations -

- administrative bodies and non-commercial institutions and associations;
- 4) claims or contingent claims on multilateral development banks - multilateral development banks;
 - 5) claims or contingent claims on international organisations - international organisations;
 - 6) claims or contingent claims on credit institutions or investment firms - credit institutions and investment firms;
 - 7) claims or contingent claims on companies - companies;
 - 8) retail claims or contingent retail claims - retail claims;
 - 9) claims or contingent claims secured by real estate property - claims secured by real estate property;
 - 10) claims not paid when due - past due claims;
 - 11) claims regarded as high-risk instruments in the calculation of prudential ratios - high-risk instruments;
 - 12) short-term claims on credit institutions, investment firms and other companies - short-term debts of credit institutions, investment firms and other companies.

(2) For the classes of exposures used in the calculation of the capital requirement for credit risk under the Internal Ratings Based Approach, as specified in clauses 86⁹ (1) 1)-4) of the Credit Institutions Act, the following abbreviated definitions shall be used in this Division:

- 1) claims or contingent claims on central governments or central banks - central governments and central banks;
- 2) claims or contingent claims on credit institutions and investment firms or on regional governments and local authorities - credit institutions, investment firms and local authorities;
- 3) claims or contingent claims on other companies - other companies;
- 4) retail claims or contingent retail claims - retail exposures.

Subdivision 1 Standardised Approach to credit risk

Sub-subdivision 1 Exposure values

§ 17. Exposure values of asset items

- (1) The exposure value of an asset item shall be equal to its balance-sheet value.
- (2) Where the write-down of an asset is recognised on a separate row of the balance sheet, the asset shall be included in the net value.
- (3) Where a credit institution uses the Financial Collateral Comprehensive Method to calculate risk-weighted exposure amounts and the effects of credit risk mitigation, and where an exposure takes the form of securities or commodities sold or lent under repurchase transactions or under securities or commodities lending or borrowing transactions or margin lending transactions, the exposure value shall be increased pursuant to the procedure established in Subdivision 3 of this Division.

§ 18. Exposure values of off-balance sheet items

The exposure values of off-balance sheet items shall be calculated pursuant to the procedure established in Subdivision 5 of this Division.

§ 19. Exposure values of derivative instruments

- (1) The exposure values of derivative instruments other than options shall be calculated pursuant to the procedure established in Subdivision 6 of this Division, with the effects of contracts of novation and other netting agreements taken into account.
- (2) The exposure values of repurchase transactions, securities or commodities lending or borrowing transactions, long settlement transactions and margin lending transactions shall be calculated pursuant to the procedure established in Subdivision 3 or 6 of this Division.

Sub-subdivision 2
Using credit assessments for the determination of risk weights

§ 20. Using external credit assessments

- (1) For risk weighting purposes, a credit institution may use the credit assessments of one or more external credit assessment institutions (hereinafter "eligible ECAI") included in the list of external credit assessment institutions compiled by the Financial Supervision Authority (hereinafter "external credit assessments"). The external credit assessments of a chosen eligible ECAI shall be used in a continuous and consistent way over time.
- (2) A credit institution that has decided to use the external credit assessments produced by an eligible ECAI for a certain class of exposures shall use those external credit assessments consistently for all exposures belonging to that class.
- (3) A credit institution may only use the external credit assessments that take into account all amounts related to the exposure in question, both in principal and in interest, owed to it.
- (4) If only one external credit assessment is available for a rated debtor or issuing program from which an exposure arises, that external credit assessment shall be used to determine the risk weight for that debtor or issuing program.
- (5) If two credit assessments from eligible ECAs are available for a debtor or issuing program and these assessments correspond to different risk weights, the higher risk weight shall be assigned.
- (6) If more than two external credit assessments from eligible ECAs are available for a debtor or issuing program, the two highest external credit assessments shall be referred to. If the risk weights resulting from the two highest external credit assessments are different, the lowest risk weight shall be assigned.

§ 21. Using external credit assessments of issuers and issuing programs

- (1) Where an exposure arises from an issuing program for which an external credit assessment is available, that external credit assessment shall be used to determine the risk weight to be assigned to that exposure.
- (2) Where an exposure arises from an issuing program for which no external credit assessment is available, but an external credit assessment exists for the issuer or for another issuing program of that issuer, then the existing external credit assessment shall be used, provided it produces a higher risk weight than that calculated without an external credit assessment. Where the risk weight resulting from the external credit assessment of an issuing program or issuer is lower than the risk weight of the exposure calculated without an external credit assessment, that external credit assessment may be used if the exposure in question ranks *pari passu* or senior to the specific issuing program or to senior unsecured exposures of that issuer.
- (3) An external credit assessment of an issuer within a corporate group shall not be used as the credit assessment of another company within the same corporate group.

§ 22. Using external credit assessments of short-term obligations

- (1) External credit assessments of short-term obligations may only be used for the short-term exposures that arise from short-term claims on credit institutions, investment firms and other companies.
- (2) A short-term external credit assessment shall only be applied to the instrument for which it was produced.

§ 23. Claims denominated in obligor's domestic currency or foreign currency

- (1) An external credit assessment that refers to liabilities denominated in the obligor's domestic currency shall not be used to derive a risk weight for another exposure arising from the liabilities of the same obligor that are denominated in a foreign currency.

(2) When an exposure denominated in a foreign currency arises through a credit institution's participation in a loan that has been extended by a multilateral development bank whose preferred creditor status is recognised in the market, the external credit assessment of the obligor's credit instrument denominated in the obligor's domestic currency may be used for risk weighting purposes.

(3) A credit institution shall immediately notify the Financial Supervision Authority of any exercise of the right specified in subsection (2) of this section.

Sub-subdivision 3

Risk weights and calculation of risk-weighted exposure amounts

§ 24. Calculation of risk-weighted exposure amounts

(1) To calculate risk-weighted exposure amounts, the exposure values calculated in accordance with Sub-subdivision 1 of this Subdivision shall be multiplied by the risk weights specified in this Sub-subdivision.

(2) For the purpose determining the risk weights, all exposures shall be assigned to exposure classes specified in subsection 86³ (1) of the Credit Institutions Act.

(3) Risk-weighted exposure amounts for securitised exposures shall be calculated pursuant to the procedure established in Subdivision 4 of this Division.

§ 25. Specifications of determining risk weights

(1) In calculating capital requirements on a solo basis, a 0% risk weight may be assigned to claims or contingent claims (hereinafter "claims") on the parent company or a subsidiary of a credit institution or on another subsidiary of the parent company, if the company in question is established in Estonia and all of the following conditions are met:

- 1) the company in question is a credit institution, an investment firm, a financial holding company, a financial institution or an ancillary services company subject to the obligation to comply with capital requirements, on a solo basis, which are equivalent to the requirements established in this Decree;
- 2) the company in question is included in the same consolidation group as the credit institution;
- 3) the company in question is subject to the same risk evaluation, measurement and control procedures as the credit institution;
- 4) there are no impediments in the consolidation group of the credit institution to free movement of capital within the group or to compliance with intra-group obligations.

(2) In the case of asset sale and repurchase transactions and outright forward purchases, the risk weight shall be that assigned to the assets constituting the objects of the transactions and not to the counterparties to the transactions.

(3) If the external credit assessment of an obligor's short-term obligation corresponds to a 150% risk weight, then all the exposures on that obligor shall also be assigned a 150% risk weight.

(4) If the external credit assessment of an obligor's short-term obligation corresponds to a 50% risk weight, then all unrated short-term exposures on that obligor shall be assigned a 100% risk weight.

(5) Where a credit institution provides credit protection for a number of exposures on the condition that the nth default among the exposures will trigger the payment obligation of the credit institution and that such event will terminate the contract, the risk weights shall be determined as follows:

- 1) where the instrument providing credit protection has an external credit assessment, the risk weights specified in Subdivision 4 of this Division shall be applied;
- 2) where the instrument providing credit protection has no external credit assessment, the risk weights of exposures included in the basket of exposures protected by credit protection shall be aggregated up to a maximum of 1250% and

the result shall be applied to the nominal amount of the protection to obtain the risk-weighted exposure amount. N-1 exposures with the lowest risk weights shall be excluded from the aggregation of the risk weights of exposures, with N representing the number of exposures triggering the payment obligation under the agreement for credit protection.

§ 26. Risk weights of central governments and central banks

(1) The risk weights of central governments and central banks shall be determined in accordance with the external credit assessments of the home countries of the central governments or central banks and the credit quality steps corresponding to these credit assessments. The following risk weights correspond to the credit quality steps determined by the Financial Supervision Authority on the basis of external credit assessments:

- 1) credit quality step 1 - 0%;
- 2) credit quality step 2 - 20%;
- 3) credit quality step 3 - 50%;
- 4) credit quality steps 4 and 5 - 100%;
- 5) credit quality step 6 - 150%.

(2) In the absence of an external credit assessment a 100% risk weight shall be assigned.

(3) Exposures to Member States' central governments and central banks denominated and funded in the domestic currencies of the central governments and central banks shall be assigned a risk weight of 0%.

(4) When the competent authority of a third country which applies supervisory and regulatory arrangements at least equivalent to those applied in the Member States has assigned a risk weight which is lower than that indicated in subsection (1) and (2) of this section to exposures to its central government and central bank denominated and funded in the domestic currency, the risk weights established in that country shall be applied to such exposures.

(5) The following risk weights correspond to risk categories determined by export credit agencies:

- 1) risk category 1 - 0%;
- 2) risk category 2 - 20%;
- 3) risk category 3 - 50%;
- 4) risk categories 4-6 - 100%;
- 5) risk category 7 - 150%.

(6) Exposures to the European Central Bank shall be assigned a 0% risk weight.

(7) Exposures arising from mandatory reserves required by the European Central Bank or by the central bank of a Member State to be held by credit institutions may be assigned a relevant risk weight under subsection (1) of this section, provided that:

- 1) the reserve is held in accordance with Regulation (EC) No. 1745/2003 of the European Central Bank of 12 September 2003 on the application of minimum reserves (OJ L 250, 2.10.2003, p. 10) or a subsequent replacement regulation or in accordance with national requirements in all material respects equivalent to that Regulation; and
- 2) in the event of the bankruptcy or insolvency of the institution where the reserve is held, the reserves are fully repaid to the credit institution in a timely manner and are not made available to meet other liabilities of the institution.

§ 27. Risk weights of regional governments and local authorities

(1) The risk weights of regional governments and local authorities shall be assigned on the basis of the external credit assessments of their home countries and the credit quality steps corresponding to these external credit assessments. The following risk weights correspond to the credit quality steps determined by the Financial Supervision Authority on the basis of external credit assessments:

- 1) credit quality step 1 - 20%;

- 2) credit quality step 2 - 50%;
- 3) credit quality steps 3, 4 and 5 - 100%;
- 4) credit quality step 6 - 150%.

(2) In the absence of an external credit assessment a 100% risk weight shall be assigned.

(3) The risk weight assigned to the central government of a country shall also be assigned to regional governments and local authorities established in the jurisdiction of the central government, if there is no difference in risk between exposures to regional governments and local authorities and to the central government because of the specific revenue-raising powers of regional governments and local authorities and the existence of specific institutional arrangements the effect of which is to reduce their risk of default.

(4) When the competent authority of a third country which applies supervisory and regulatory arrangements at least equivalent to those applied in the Member States treats exposures to regional governments and local authorities as exposures to the central government, the risk weights determined by that competent authority may be assigned to such regional governments and local authorities.

§ 28. Risk weights of administrative bodies and non-commercial institutions and associations

(1) Exposures to administrative bodies and non-commercial institutions and associations shall be assigned a 100% risk weight.

(2) When the competent authority of a third country which applies supervisory and regulatory arrangements at least equivalent to those applied in the Member States treats exposures to administrative bodies as exposures to credit institutions and investment firms or the central government, the risk weights determined by that competent authority may be assigned to such administrative bodies.

§ 29. Risk weights of multilateral development banks

(1) The risk weights of multilateral development banks shall be determined on the basis of their external credit assessments and the credit quality steps corresponding to these external credit assessments. The following risk weights correspond to the credit quality steps determined by the Financial Supervision Authority on the basis of external credit assessments:

- 1) credit quality step 1 - 20%;
- 2) credit quality step 2 - 50%;
- 3) credit quality steps 3, 4 and 5 - 100%;
- 4) credit quality step 6 - 150%.

(2) The following multilateral development banks shall be assigned a 0% risk weight:

- 1) the International Bank for Reconstruction and Development;
- 2) the International Finance Corporation;
- 3) the Inter-American Development Bank;
- 4) the Asian Development Bank;
- 5) the African Development Bank;
- 6) the Council of Europe Development Bank;
- 7) the Nordic Investment Bank;
- 8) the Caribbean Development Bank;
- 9) the European Bank for Reconstruction and Development;
- 10) the European Investment Bank;
- 11) the European Investment Fund;
- 12) the Multilateral Investment Guarantee Agency.

(3) A risk weight of 20% shall be assigned to the portion of unpaid capital subscribed to the European Investment

Fund.

(4) Multilateral development banks include the Inter-American Investment Corporation, the Black Sea Trade and Development Bank and the Central American Bank for Economic Integration.

§ 30. Risk weights of international organisations

(1) Exposures to international organisations shall be assigned a 100% risk weight.

(2) The following international organisations shall be assigned a 0% risk weight:

- 1) the European Community;
- 2) the International Monetary Fund;
- 3) the Bank of International Settlements.

§ 31. Risk weights of credit institutions and investment firms

(1) The risk weights of credit institutions and investment firms shall be assigned on the basis of the external credit assessments of their home countries and the credit quality steps corresponding to these external credit assessments. The following risk weights correspond to the credit quality steps determined by the Financial Supervision Authority on the basis of external credit assessments:

- 1) credit quality step 1 - 20%;
- 2) credit quality step 2 - 50%;
- 3) credit quality steps 3, 4 and 5 - 100%;
- 4) credit quality step 6 - 150%.

(2) In the absence of an external credit assessment a 100% risk weight shall be assigned.

(3) For exposures to credit institutions or investment firms with an original effective maturity of three months or less, the risk weight shall be 20%.

(4) Exposures to credit institutions or investment firms of a residual maturity of three months or less denominated and funded in the borrower's national currency shall be assigned a risk weight that is one category lower than the risk weight described in subsection (1) of this section, but not less than 20%.

(5) Investments in equity or regulatory capital instruments issued by credit institutions and investment firms shall be risk weighted at 100%, unless deducted from the own funds of the credit institution.

§ 32. Risk weights of companies

(1) The risk weights of exposures to companies shall be determined on the basis of external credit assessments and the corresponding credit quality steps. The following risk weights correspond to the credit quality steps determined by the Financial Supervision Authority on the basis of external credit assessments:

- 1) credit quality step 1 - 20%;
- 2) credit quality step 2 - 50%;
- 3) credit quality steps 3 and 4 - 100%;
- 4) credit quality steps 5 and 6 - 150%.

(2) Exposures for which no credit quality assessment is available shall be assigned a 100% risk weight or the risk weight assigned to the central government of the company's country of location under subsection 26 (1) of this Decree, whichever is the higher.

§ 33. Risk weights of retail exposures

Retail exposures shall be assigned a risk weight of 75%.

§ 34. Risk weights of exposures secured by real estate property

- (1) Subject to the following subsections of this section, exposures fully secured by real estate property shall be assigned a risk weight of 100%.
- (2) Exposures or any part of an exposure fully and completely secured by mortgages on residential real estate that meets the criteria specified in subsection (5) of this section shall be assigned a risk weight of 35%.
- (3) Exposures or any part of an exposure fully and completely secured by shares in Finnish residential housing companies, operating in accordance with the Finnish Housing Company Act of 1991 or subsequent equivalent legislation, with residential real estate meeting the criteria specified in subsection (5) of this section as the underlying asset shall be assigned a risk weight of 35%.
- (4) Exposures to a tenant arising from a residential real estate lease, which provides for the transfer of title to the tenant or for the preemptive right of the tenant, shall be assigned a risk weight of 35%, provided that the credit institution is the lessor and that the exposure is fully and completely secured by the residential real estate leased.
- (5) The residential real estate referred to in subsections (2)-(4) of this section shall meet the following criteria:
 - 1) the value of the property does not materially depend upon the credit quality of the obligor, except the effect of factors associated with the economic environment;
 - 2) any cash flow generated by the property serving as collateral does not constitute the primary source of repayment of the loan, i.e. the credit risk of the obligor does not materially depend upon the performance of the underlying property;
 - 3) the requirements set out in subsections 114 (4) and (5) and section 150 of this Decree are met;
 - 4) the secured exposure accounts for up to 70% of the value of the property serving as collateral.
- (6) Where the competent authorities of a Member State with a well-developed and long-established real estate market historically characterised by low loss rates exercise the right to not apply the condition specified in clause 2) of subsection (5) of this section to exposures fully and completely secured by mortgages on immovable property situated within their territory, a risk weight of 35% may be assigned to exposures and to contingent claims fully and completely secured by mortgages of the first ranking established on residential real estate situated in that Member State.
- (7) Exposures or any part of an exposure fully and completely secured by shares in Finnish housing companies, operating in accordance with the Finnish Housing Company Act of 1991 or subsequent equivalent legislation, with commercial real estate meeting the criteria specified in clauses 1)-3) of subsection (5) of this section as the underlying asset may be assigned a risk weight of 50%.
- (8) Where the competent authority of a Member State applies a risk weight of 50% to exposures or any part of an exposure fully and completely secured by mortgage established on commercial real estate that meets the criteria set out in clauses 1)-3) of subsection (5) of this section, a risk weight of 50% may be assigned to exposures and parts of exposures that are fully and completely secured by mortgages established on commercial real estate situated in the territory of that Member State.
- (9) Where the competent authority of a Member State applies a risk weight of 50% to exposures to tenants which arise from leases of commercial real estate meeting the criteria set out in clauses 1)-3) of subsection (5) of this section and providing for the transfer of title to the tenant or for the preemptive right of the tenant, provided that the exposure is fully and completely secured by the real estate leased, a risk weight of 50% may be assigned to exposures to tenants in the territory of that Member State that meet the same conditions.
- (10) The risk weights specified in subsections (7)-(9) of this section may be assigned to parts of exposures which meet at least one of the following criteria:

- 1) the exposure accounts for up to 50% of the market value of the property serving as collateral;
- 2) the exposure accounts for up to 50% of the market value of the property serving as collateral or up to 60% of the mortgage lending value, whichever is lower, in those Member States that have laid down specific criteria for the assessment of the mortgage lending value.

(11) A 100% risk weight shall be assigned to the part of the exposure that exceeds the secured amount of the exposure set out in subsection (10) of this section.

(12) Where the competent authority of a Member State with a well-developed and long-established commercial real estate market historically characterised by low loss rates dispenses with the condition specified in clause 2) of subsection (5) of this section in assigning the risk weights specified in subsections (7)-(9) of this section, a risk weight of 50% shall be applied to exposures and parts of exposures that are fully and completely secured by commercial real estate situated in the territory of that Member State. The loss rates of the commercial real estate market of such a Member State shall not exceed the following limits:

- 1) losses stemming from lending collateralised by commercial real estate property up to 50% of the market value or up to 60% of the mortgage lending value do not exceed 0.3% of the outstanding loans collateralised by commercial real estate property in any given year; and
- 2) overall losses stemming from lending collateralised by commercial real estate property must not exceed 0.5% of the outstanding loans collateralised by commercial real estate property in any given year.

(13) If either of the limits referred to in clauses 1) and 2) of subsection (12) of this section is not satisfied in a given year, the risk weight specified in subsection (12) of this section shall not be applied. The condition established in clause 2) of subsection (5) of this section shall apply until the year that follows the satisfaction of the conditions established in clauses 1) and 2) of subsection (12) of this section.

§ 35. Risk weights of past due claims

(1) The unsecured part of any claim that is past due, whether fully or in part, for more than 90 days shall be assigned the following risk weights:

- 1) 150%, if the claim has not been written down or if the write-down accounts for less than 20% of the claim not including write-downs;
- 2) 100%, if the write-down of the claim accounts for 20% or more of the claim not including write-downs.

(2) For the purpose of defining the secured part of a claim that is past due, whether fully or in part, eligible collateral and guarantees shall be those eligible for the purposes of calculating the capital requirements for credit risk as specified in Subdivision 3 of this Division.

(3) Where an exposure indicated section 34 of this Decree is past due for 90 days or more, it shall be assigned a risk weight of 50% if the exposure has been written down by no less than 20% of the exposure not including write-downs; otherwise a risk weight of 100% shall be assigned to the exposure.

§ 36. Risk weights of covered bonds

(1) Covered bonds are securities specified in subsection 260 (1) of the Investment Funds Act which are collateralised by any of the following assets:

- 1) exposures to or guaranteed by central governments, central banks, regional governments, local authorities and administrative bodies;
- 2) exposures to or guaranteed by non-EU central governments, non-EU central banks, multilateral development banks or international organisations that pursuant to the procedure established in Sub-subdivision 2 of this Subdivision qualify for credit quality step 1, and claims on or guaranteed by non-EU regional governments, local authorities and administrative bodies that are risk weighted as exposures to credit institutions and investment firms or central

- governments and central banks and that pursuant to the procedure established in Sub-subdivision 2 of this Subdivision qualify for credit quality step 1;
- 3) exposures specified in clause 1) of this subsection, if they pursuant to the procedure established in Sub-subdivision 2 of this Subdivision qualify for credit quality step 2 and provided that they do not exceed 20% of the nominal amount of the outstanding issue;
 - 4) exposures to credit institutions or investment firms which pursuant to the procedure established in Sub-subdivision 2 of this Subdivision qualify for credit quality step 1, provided that they do not exceed 15% of the nominal amount of the outstanding issue. The 15% limit shall not be applied to exposures caused by transmission of payments of the obligors of loans secured by real estate to the holders of covered bonds;
 - 5) exposures to credit institutions or investment firms in the Member States with a maturity not exceeding 100 days, which pursuant to the procedure established in Sub-subdivision 2 of this Subdivision qualify for credit quality step 2;
 - 6) loans secured by residential real estate referred to in subsection 34 (2) of this Decree or by shares in Finnish residential housing companies with residential real estate as the underlying assets, in the case of which the principal amount of the liens that are combined with any prior liens does not exceed 80% of the value of the pledged properties;
 - 7) loans secured by senior securities issued by French Fonds Communs de Cr  ances or by equivalent securitisation entities governed by the laws of a Member State securitising residential real estate exposures, provided that at least 90% of the assets of such an issuer are composed of mortgages and prior liens, and, provided further, that the value of these securities, when combined, does not exceed 80% of the value of the pledged properties, the securities qualify for credit quality step 1 pursuant to the procedure established in Sub-subdivision 2 of this Subdivision, and these securities do not exceed 20% of the nominal amount of the outstanding issue. Exposures caused by transmission and management of payments of the obligors of, or liquidation proceeds in respect of, loans secured by pledged properties shall not be comprised in calculating the 90% limit;
 - 8) loans secured by shares in Finnish residential housing companies referred to in subsection 34 (7) of this Decree with commercial real estate as the underlying assets in the case of which the principal amount of the liens that are combined with any prior liens does not exceed 60% of the value of the pledged properties;
 - 9) loans secured by senior securities issued by French Fonds Communs de Cr  ances or by equivalent securitisation entities governed by the laws of a Member State securitising commercial real estate exposures, provided that at least 90% of the assets of such an issuer are composed of mortgages and prior liens, and, provided further, that the value of these securities, when combined, does not exceed 60% of the value of the pledged properties, the securities qualify for credit quality step 1 pursuant to the procedure established in Sub-subdivision 2 of this Subdivision, and these securities do not exceed 20% of the nominal amount of the outstanding issue. Exposures caused by transmission and management of payments of the obligors of, or liquidation proceeds in respect of, loans secured by pledged properties shall not be comprised in calculating the 90% limit;
 - 10) loans secured by ships where the principal amount of liens that are combined with any prior liens does not exceed 60% of the value of the pledged ship.

(2) The terms and conditions of collateralisation of the covered bonds specified in subsection (1) of this section shall stipulate that the assets serving as collateral shall only be realised for the purpose of protecting bond-holders against losses.

(3) The 20% limit need not be applied to senior units issued by French Fonds Communs de Cr  ances or by an equivalent securitisation entity of a Member State as specified in clause 7) of subsection (1) of this section, provided that those securities have an external credit assessment by an eligible ECAI which is the most favourable category of credit assessment made by the ECAI in respect of covered bonds.

(4) Credit institutions shall for real estate collateralising covered bonds meet the requirements set out in subsections 114 (4) and (5) and in section 150 of this Decree.

(5) Covered bonds specified in subsection (1) of this section shall be assigned the following risk weights:

- 1) if unsecured exposures to the credit institution which has issued the covered bonds are assigned a risk weight of 20%, the covered bonds shall be assigned a risk weight of 10%;
- 2) if unsecured exposures to the credit institution which has issued the covered bonds are assigned a risk weight of 50%, the covered bonds shall be assigned a risk weight of 20%;

- 3) if unsecured exposures to the credit institution which has issued the covered bonds are assigned a risk weight of 100%, the covered bonds shall be assigned a risk weight of 50%;
- 4) if unsecured exposures to the credit institution which has issued the covered bonds are assigned a risk weight of 150%, the covered bonds shall be assigned a risk weight of 100%.

(6) The risk weights set out in subsection (5) of this section shall also be assigned to covered bonds issued before 31 December 2007 which meet the requirements established in subsection 260 (1) of the Investment Funds Act.

§ 37. Risk weights of securitisation positions

Risk weights for securitisation positions shall be determined pursuant to the procedure established in Subdivision 4 of this Division.

§ 38. Risk weights of short-term exposures to credit institutions, investment firms and companies

Exposures arising from short-term obligations of credit institutions, investment firms or companies for which a specific short-term external credit assessment is available shall be assigned risk weights in accordance with the external credit assessments and the corresponding credit quality steps. The following risk weights correspond to the credit quality steps determined by the Financial Supervision Authority on the basis of external credit assessments:

- 1) credit quality step 1 - 20%;
- 2) credit quality step 2 - 50%;
- 3) credit quality step 3 - 100%;
- 4) credit quality steps 4, 5 and 6 - 150%.

§ 39. Risk weights of shares and units of CIUs

(1) Shares and units of collective investment undertakings (CIU) shall be assigned risk weights in accordance with the external credit assessments of such shares and units and the corresponding credit quality steps. The following risk weights correspond to the credit quality steps determined by the Financial Supervision Authority on the basis of external credit assessments:

- 1) credit quality step 1 - 20%;
- 2) credit quality step 2 - 50%;
- 3) credit quality steps 3 and 4 - 100%;
- 4) credit quality steps 5 and 6 - 150%.

(2) In the absence of an external credit assessment a 100% risk weight shall be assigned, subject to subsection (3) of this section.

(3) Shares and units of CIUs meeting the conditions established in subsection (5) of this section may be assigned risk weights as follows:

- 1) Where the credit institution has reliable information about the investments of the CIU in question, shares and units of that CIU shall be assigned a weighted average risk weight calculated pursuant to the procedure established in this Sub-subdivision on the basis of those investments.
- 2) Where the credit institution does not have reliable information about the investments of the CIU in question, shares and units of that CIU shall be assigned a weighted average risk weight calculated in accordance with investment limits provided for in the fund rules. When calculating the weighted average risk weights it shall be assumed that the CIU has invested, to the maximum extent allowed, in the instruments that would attract the highest risk weight under the procedure established in this Sub-subdivision, then in the instruments attracting the second highest risk weight, etc., until all investments are grouped on the basis of investment limits.

(4) In determining the risk weights, credit institutions may rely on information obtained from third parties, provided that the correctness of the calculation of capital requirements is ensured.

(5) Credit institutions may determine the risk weights pursuant to the procedure set out in subsection (3) of this section, if the following eligibility criteria are met:

- 1) The CIU in question is managed by a company which is subject to financial supervision in a Member State or has received the approval of the Financial Supervision Authority. The Financial Supervision Authority shall give the approval if the CIU is managed by a company which is subject to financial supervision that is considered equivalent to that laid down in Community law and if cooperation between the financial supervisory authority of the CIU's country of location and the Financial Supervision Authority is sufficiently ensured.
- 2) The CIU's prospectus or equivalent documentation include a description of the CIU's investment policy, including a list of assets in which the CIU is authorised to invest, and investment limits and the methodology to calculate them.
- 3) The business of the CIU is reported on at least an annual basis to enable an assessment to be made of the CIU's assets and liabilities, income and operations over the reporting period.

(6) The Financial Supervision Authority may regard the conditions stipulated in subsection (5) of this section as fulfilled for the management company of a third-country CIU, if the competent authority of at least one Member State has given its approval as referred to in clause 1) of subsection (5) of this section.

§ 40. Risk weights of other items

- (1) Tangible assets shall be assigned a risk weight of 100%.
- (2) Prepayments and accrued income shall be assigned a risk weight on the basis of the risk weight assigned to the counterparty pursuant to the procedure established in this Subdivision. Where the counterparty cannot be determined a risk weight of 100% shall be assigned.
- (3) Cash in hand and equivalent cash items shall be assigned a 0% risk weight. Cash items in the process of collection shall be assigned a 20% risk weight.
- (4) Holdings of equity and other participations in other companies, except where deducted from own funds, shall be assigned a risk weight of 100%.
- (5) Gold bullions and exposures fully secured by gold bullions shall be assigned a 0% risk weight.

Subdivision 2 Internal Ratings Based Approach to credit risk

Sub-subdivision 1 General provisions on using the Internal Ratings Based Approach

§ 41. Sequential implementation of the Internal Ratings Based Approach

- (1) The Internal Ratings Based Approach shall be implemented sequentially in accordance with subsection 86⁷ (8) of the Credit Institutions Act.
- (2) The classes of retail exposures across which the implementation of the Internal Ratings Based Approach may be carried out sequentially are as follows:
 - 1) retail exposures secured by real estate as specified in clause 42 (5) 1) of this Decree;
 - 2) revolving exposures as specified in clause 42 (5) 2) of this Decree;
 - 3) other retail exposures.

§ 42. Classification of exposures

- (1) Exposures shall be classified in accordance with section 86⁹ of the Credit Institutions Act and subsections (2)-(4) of this section.

- (2) Exposures to multilateral development banks specified in subsection 29 (2) of this Decree shall be treated as exposures to central governments and central banks.
- (3) Exposures to regional governments and local authorities that do not attract a risk weight of 0% under section 27 of this Decree shall be treated as exposures to credit institutions, investment firms and local authorities.
- (4) Exposures to public sector entities, multilateral development banks and international organisations that do not attract a risk weight of 0% under sections 28-30 of this Decree shall be treated as exposures to companies.
- (5) Retail exposures shall be assigned to three classes:
 - 1) retail exposures secured by real estate;
 - 2) revolving retail exposures;
 - 3) other retail exposures.
- (6) All retail exposures whose loss rate depends on the cash flow generated by the realisation of the real estate collateral shall be classified as exposures secured by real estate.
- (7) Revolving retail exposures shall meet the following criteria:
 - 1) the exposures shall be to private persons;
 - 2) the exposures are revolving and the credit institution is entitled to immediately and unconditionally cancel the undrawn portion of a contractual commitment at least to the extent allowable under effective consumer protection and related legislation;
 - 3) the exposures are unsecured, except if linked to wage accounts and the amounts recovered from the wage accounts are not taken into account in the LGD estimate;
 - 4) the sum of revolving exposures to a single counterparty is EUR 100,000 or less;
 - 5) the credit institution can demonstrate, if appropriate, that the use of the correlation rate set out in this subsection is limited to revolving exposures that have exhibited low volatility of loss rates, relative to their average level of loss rates, especially within the low PD (probability of default) bands;
 - 6) the Financial Supervision Authority concurs that the use of the correlation rate set out in this subsection is consistent with the underlying risk characteristics of the relevant sub-portfolio.

§ 43. Risk-weighted exposure amounts and calculation of expected loss amounts

- (1) For the purpose of calculating the capital requirement for credit risk and the capital requirement for dilution risk of purchased receivables, the risk-weighted exposure amounts shall be calculated pursuant to the procedure established Sub-subdivision 2 of this Subdivision.
- (2) "Expected loss" means the ratio of the amount expected to be lost on an exposure to the amount of the exposure, expressed in a percentage, taking into account the probability of default and the loss given default relating to the obligor in question. Expected loss shall be calculated pursuant to the procedure established in Sub-subdivision 3 of this Subdivision.
- (3) Risk-weighted exposure amounts and expected losses shall be calculated on the basis of the risk parameters set out in section 44 of this Decree.
- (4) Where a credit institution has full recourse in respect of purchased receivables for credit risk or for dilution risk, to the seller of the purchased receivables, the purchased receivables may be treated as collateralised exposures pursuant to the procedure established in Subdivision 4 of this Division.

§ 44. Risk parameters used under the Internal Ratings Based Approach

- (1) The credit risk parameters of an exposure include:

- 1) probability of default;
- 2) loss given default;
- 3) maturity;
- 4) value of exposure.

(2) "Probability of default" means the probability of default of an obligor on its contractual obligations over a one-year period. The probability of default is expressed in a percentage.

(3) "Loss given default" means the ratio of the loss on an exposure due to the default of an obligor to the amount outstanding upon default. The loss given default is expressed in a percentage.

§ 45. Counting days past due for the purpose of defining default

(1) For the purpose of defining the default of an obligor, days past due shall commence on the day that follows the payment due date.

(2) For overdrafts, days past due commence once an obligor has breached an advised limit, has been advised a limit smaller than current amounts outstanding, or has drawn credit without authorisation and the underlying amount is material.

(3) Days past due for credit cards commence on the day that follows the minimum payment due date.

(4) For the purpose of counting days past due, credit institutions may establish a floor that reflects the level starting from which an amount is considered material.

§ 46. Abbreviations used in this Subdivision

In this Subdivision the following abbreviations are used:

PD - probability of default

PDpp - probability of default of the (credit risk) protection provider

LGD - loss given default

RW - risk weight

R - correlation

M - maturity

b - maturity factor

$N(x)$ - the cumulative distribution function for a standard normal random variable, i.e. the probability that a normal random variable with mean zero and variance of one is less than or equal to x

$G(z)$ - the inverse cumulative distribution function for a standard normal random variable, i.e. the value x such that $N(x)=z$

EL - expected loss

EL_{BE} - the credit institution's best estimate of expected loss on default

Sub-subdivision 2

Calculation of risk-weighted exposure amounts under the Internal Ratings Based Approach to credit risk

§ 47. Calculation of risk-weighted exposure amounts under the Internal Ratings Based Approach to credit risk

A risk-weighted exposure amount shall be calculated by multiplying the risk weight assigned to the exposure class by the exposure value calculated in accordance with Sub-subdivision 5 of this Subdivision, unless otherwise established in this Decree.

§ 48. Calculation of risk-weighted exposure amounts for securitisation positions

The risk-weighted exposure amounts for positions included in the class of securitised exposures shall be calculated pursuant to the procedure established in Subdivision 4 of this Division.

§ 49. Calculation of risk-weighted exposure amounts for shares and units of CIUs

(1) Where the shares and units of the CIU in question meet the criteria specified in subsection 39 (5) of this Decree and the credit institution has reliable information about the investments made by the CIU (hereinafter "underlying exposures"), these underlying exposures shall be treated as investments made by the credit institution and the risk-weighted exposure amounts and expected loss amounts relating to these investments shall be calculated pursuant to the procedure established in this Subdivision.

(2) Where the credit institution has no reliable information to assess the risk parameters attributable to the underlying exposures to shares and units of a CIU in accordance with Sub-subdivision 5 of this Subdivision, the risk-weighted exposure amounts shall be calculated as follows:

1) For underlying exposures arising from equity exposures the risk-weighted exposure amounts shall be calculated pursuant to the procedure established in section 58. If, for those purposes, the credit institution is unable to differentiate between exchange-traded and other equity exposures, it shall treat all equity exposures as other equity exposures.

2) For other underlying exposures, the risk-weighted exposure amounts shall be calculated pursuant to the procedure established in subsections 39 (1) and (2) of this Decree with the exposures being assigned to the appropriate exposure class and attributed the risk weight of the credit quality step immediately above the credit quality step that would normally be assigned to the exposure, and with the risk weight of 150% replaced by a risk weight of 200%.

(3) Where shares and units of CIUs do not meet the criteria set out in subsection 39 (5) and the credit institution is not aware of all underlying exposures, the risk-weighted exposure amounts shall be calculated for known underlying exposures pursuant to the procedure established in section 58. Known exchange-traded underlying exposures shall be treated as exchange-traded equity exposures and all other underlying exposures shall be treated as equity exposures.

(4) Where shares and units of CIUs do not meet the criteria set out in subsection 39 (5), credit institutions may calculate themselves or may rely on a third party to calculate the average risk weighted exposure amounts based on the CIU's underlying exposures in accordance with the following approaches, provided that the credit institution has information about all underlying exposures and that the reliability of the information is adequately ensured:

1) for underlying exposures arising from equity exposures, the risk-weighted exposure amounts shall be calculated pursuant to the procedure established in section 58. If, for those purposes, exchange-traded and other equity exposures cannot be differentiated, all equity exposures shall be treated as other equity exposures;

2) for other underlying exposures, the risk-weighted exposure amounts shall be calculated pursuant to the procedure established in subsections 39 (1) and (2) with the exposures being assigned to the appropriate exposure class and attributed the risk weight of the credit quality step immediately above the credit quality step that would normally be assigned to the exposure, and with the risk weight of 150% replaced by a risk weight of 200%.

§ 50. Calculation of risk weights for exposures assigned to the exposure class of exposures to central governments, central banks, credit institutions, investment firms and companies

(1) The risk weights of central governments and central banks, credit institutions, investment firms and companies shall be calculated according to the following formula:



(2) Correlation shall be calculated according to the following formula:



(3) The maturity factor shall be calculated according to the following formula:



(4) To exposures in the case of which the probability of default is 0% a risk weight of 0% shall be assigned.

(5) To exposures in the case of which the probability of default is 100% a risk weight of 0% shall be assigned in the

case of application of the Foundation IRB Approach. In the case of application of the Advanced IRB Approach, risk weights shall be calculated according to the following formula:



§ 51. Calculation of risk weights for exposures to central governments, central banks, credit institutions, investment firms and companies secured by credit protection

(1) For positions belonging in the class of exposures to central governments and central banks, credit institutions, investment firms and companies the risk weights calculated pursuant to the procedure established section 50 may be adjusted by the following formula subject to the existence of credit protection meeting the criteria set out in subsection 121 (3):



(2) For the purpose of calculating adjusted risk weights in accordance with subsection (1) of this section, the PD of the obligor and the LGD of a comparable direct exposure to the protection provider shall be used. The maturity factor shall be calculated using the lower of the PD of the credit protection provider and the PD of the obligor.

(3) Where credit protection is provided in the form of a credit derivative that covers a number of exposures under terms that the n^{th} default among the exposures shall trigger the payment obligation of the credit protection provider and that this credit event shall terminate the contract, the risk weights specified in Subdivision 4 of this Division shall be applied if the credit derivative has an external credit assessment from an eligible ECAI. In the absence of an external credit assessment, the risk weights of the exposures included in the basket shall be aggregated, excluding $n-1$ exposures where the sum of the expected loss amount multiplied by 12.5 and the risk weighted exposure amount shall not exceed the nominal amount of the protection provided by the credit derivative multiplied by 12.5. The $n-1$ exposures to be excluded from the aggregation shall include the exposures that are assigned the lowest risk weights.

§ 52. Taking into account the sizes of companies in the calculation of correlation

(1) For exposures to companies where the total annual sales of the consolidation group of which the company in question is a part is less than EUR 50 million, credit institutions may use the following correlation formula for the calculation of risk weights for the corporate exposure:



(2) In the formula set out in subsection (1) of this section, "S" is expressed as total annual sales of the consolidation group in millions of Euros. Reported sales of the consolidation group of less than EUR 5 million shall be treated as if they were equivalent to EUR 5 million. For a pool of purchased receivables the total annual sales shall be the weighted average by individual exposures of the pool.

(3) In the case that the annual sales are not an objective indicator of the size of a consolidation group, the annual sales shall be substituted by the total assets of the consolidation group. Annual sales may be substituted by total assets only on the condition that the latter constitute a more adequate indicator of size.

§ 53. Alternative treatment of specialised exposures

(1) Specialised exposures in the case of which a credit institution cannot demonstrate the conformity of PD assessments to the requirements set out in this Subdivision shall be assigned the following risk weights:

Remaining maturity	Category 1	Category 2	Category 3	Category 4	Category 5
Less than 2.5 years	50%	70%	115%	250%	0%
Equal to or more than 2.5 years	70%	90%	115%	250%	0%

(2) In assigning risk weights to specialised exposures referred to in subsection (1) of this section, credit institutions shall take into account, *inter alia*, the following factors: financial strength, political and legal environment, transaction and/or asset characteristics, strength of the sponsor and developer, public private partnership income stream, and

security package for the transaction.

§ 54. Calculation of risk weights for exposures to purchased corporate receivables

- (1) For their purchased corporate receivables credit institutions shall comply with the requirements set out in sections 101-103.
- (2) Risk weights of purchased corporate receivables shall be calculated pursuant to the procedure established in section 50. For purchased corporate receivables that comply with the conditions set out in section 56, and where it would be unduly burdensome for a credit institution to use the risk quantification standards for corporate exposures for these receivables, the risk quantification standards for purchased retail exposures may be used and the risk-weighted exposure amounts may be calculated on the basis of the pool of exposures.
- (3) Purchase discounts refundable to the sellers of receivables, other collateral or partial guarantees that provide first-loss protection for default losses or dilution losses may be treated as first-loss positions within the meaning of section 155.

§ 55. Calculation of risk weights for retail exposures

- (1) Risk weights of retail exposures shall be calculated according to the following formula:



- (2) Correlation shall be calculated according to the following formula:



- (3) For retail exposures secured by residential real estate collateral a correlation (R) of 0.15 shall be used.

- (4) For qualifying revolving retail exposures meeting the requirements established in subsection 42 (7), a correlation (R) of 0.04 may be used.

- (5) For retail exposures with a PD of 100% the risk weights shall be calculated according to the following formula:



- (6) Subject to the existence of credit protection meeting the criteria set out in sections 121 and 123 of this Decree, the risk weights of exposures to small and medium-sized companies may be treated in accordance with subsection 51(1).

§ 56. Treatment of purchased receivables as retail exposures

- (1) Purchased receivables may be treated as retail exposures if the conditions established in sections 101-103 and the following additional conditions are met:

- 1) The credit institution has purchased the receivables from unrelated, third party sellers, and the receivables do not include any exposures that have directly or indirectly been originated by the credit institution itself.
- 2) The receivables have been generated by transactions concluded on an arm's-length basis and do not include any inter-company receivables within a group of companies or receivables subject to contra-accounts between companies that buy and sell to each other.
- 3) The purchasing credit institution has a claim on all proceeds from the purchased receivables or a pro rata interest in the proceeds.
- 4) The portfolio of purchased receivables is sufficiently diversified.

- (2) For pools of purchased retail receivables where exposures secured by residential real estate collateral cannot be separated from qualifying revolving retail exposures meeting the criteria established in subsection 55 (4), the retail risk weight function producing the highest capital requirements for those exposures shall apply.

- (3) Purchase discounts refundable to the sellers of receivables, other collateral or partial guarantees that provide first-

loss protection for default losses or dilution losses may be treated as first-loss positions in accordance with section 155.

§ 57. Risk weights of equity exposures

(1) For the purpose of calculating risk weights for equity instruments, credit institutions may use the Simple Risk Weight Approach or the PD/LGD Approach. Subject to the prior written approval of the Financial Supervision Authority, the Internal Models Approach may be used.

(2) A credit institution may employ different approaches to different equity exposure portfolios, provided that different approaches are used with regard to such exposures in the risk management process within the credit institution. Where a credit institution uses different approaches it shall be able to demonstrate to the Financial Supervision Authority that the choice is made consistently and is not determined by regulatory arbitrage considerations.

(3) Equity exposures to ancillary services undertakings shall be assigned the risk weight of other non-credit-obligation assets in accordance with section 61.

§ 58. Simple Risk Weight Approach to equity exposures

(1) The following risk weights shall be applied to equity exposures in the case of using the Simple Risk Weight Approach:

- 1) 190% for private equity exposures in sufficiently diversified portfolios;
- 2) 290% for exchange traded equity exposures;
- 3) 370% for all other equity exposures.

(2) Long positions stemming from equity exposures may be offset against short cash or derivative instrument positions arising from the same exposure, provided that these instruments have been explicitly designated as hedges of specific equity exposures and that they provide a hedge for at least another year. Short positions arising from other equity instruments shall be treated as if they are long positions of equity exposures, with the relevant risk weight assigned to the absolute value of each position. In the case of maturity mismatched positions, the procedure set out in Subdivision 3 of this Division shall be applied.

(3) Subject to the existence of unfunded credit protection meeting the criteria set out in Subdivision 3 of this Division, risk-weighted exposure amounts may be calculated pursuant to the Simple Risk Weight Approach in accordance with the procedure established in that Subdivision.

§ 59. PD/LGD Approach to equity exposures

(1) Under the PD/LGD Approach the risk weights of equity exposures shall be calculated according to the formula set out in section 50. If credit institutions do not have sufficient information to use the definition of default set out in section 86²² of the Credit Institutions Act, a scaling factor of 1.5 shall be applied to the risk weights.

(2) At the individual exposure level the sum of the expected loss amount on an equity exposure, multiplied by 12.5, and the risk weighted exposure amount shall not exceed the exposure value multiplied by 12.5.

(3) Subject to the existence of unfunded credit protection meeting the criteria set out in Subdivision 3 of this Division, risk-weighted exposure amounts may be calculated pursuant to the PD/LGD Approach in accordance with the procedure established in that Subdivision. In such a case the maturity of 5 years, the LGD of 90% on the exposure to the provider of the hedge or - for private equity exposures in sufficiently diversified portfolios - an LGD of 65% shall be used.

§ 60. Internal Models Approach to equity exposures

(1) Under the Internal Models Approach, the risk weighted exposure amount shall be the potential loss on the credit institution's equity exposures as derived using internal value-at-risk models subject to the 99th percentile, one-tailed

confidence interval of the difference between quarterly returns and an appropriate risk-free rate computed over a long-term sample period, multiplied by 12.5.

(2) The risk weighted exposure amounts at the individual exposure level shall not be less than the sum of risk-weighted exposure amounts calculated under the PD/LGD Approach and the corresponding expected loss amounts multiplied by 12.5. In the calculation of the reference base, the PD set out in clause 1) of section 82 and the LGD set out in section 83 shall be used.

(3) When using the Internal Models Approach, credit institutions may recognise unfunded credit protection obtained on an equity position.

§ 61. Risk weights of other non-credit-obligation assets

(1) Assets belonging in the exposure class of other non-credit-obligation exposures shall be assigned a risk weight of 100%.

(2) Exposures arising from operating leases shall be assigned the following risk weights:

1) The risk weights of minimum lease payments receivable as set out in clause 85 (2) 1) of this Decree shall be calculated pursuant to the procedure established in this Sub-subdivision on the basis of the lessee's exposure class.

2) The risk weights of guaranteed residual value of leased properties shall be calculated according to the following formula:



Where t is the remaining term of the lease contract in years.

§ 62. Risk weights for dilution risk of purchased receivables

(1) Risk weights for dilution risk of purchased receivables shall be calculated using the formula set out in section 50, the risk parameters set out in 81, the exposure values calculated in accordance with Sub-subdivision 5 of this Subdivision and the maturity of one year.

(2) If a credit institution can demonstrate to the Financial Supervision Authority that dilution risk is immaterial, it need not calculate capital requirements for the dilution risk of purchased receivables.

Sub-subdivision 3

Calculation of expected loss amounts under the Internal Ratings Based Approach

§ 63. Expected loss amounts and treatment thereof

(1) An expected loss amount shall be calculated by multiplying the expected loss and the exposure value calculated in accordance with Sub-subdivision 5 of this Subdivision.

(2) The expected loss amounts calculated in accordance with sections 64-66 of this Decree shall be subtracted from the sum of underlying exposure value adjustments and discounts. Expected loss amounts for securitised exposures and value adjustments and discounts related to these exposures shall not be included in this calculation.

§ 64. Calculation of expected loss amounts for exposures to central governments, central banks, credit institutions, investment firms, regional governments and local authorities, companies and retail exposures

(1) The expected loss amounts for exposures to central governments, central banks, credit institutions, investment firms, regional governments and local authorities, companies and retail exposures shall be calculated according to the following formula:



(2) In the case of application of the Advanced IRB Approach and where PD is 100%, the expected loss shall be the credit institution's best estimate of expected loss for the defaulted exposure.

(3) For exposures subject to the adjustment set out in subsection 51 (1), the expected loss shall be 0%.

§ 65. EL values for specialised exposures in the case of alternative treatment

Where a credit institution employs the alternative treatment of specialised exposures set out in section 53, the expected loss values shall be as follows:

Residual maturity	Category 1	Category 2	Category 3	Category 4	Category 5
Less than 2.5 years	0%	0,4%	2,8%	8%	50%
Equal to or more than 2.5 years	0,4%	0,8%	2,8%	8%	50%

§ 66. Expected loss on the dilution risk of purchased receivables

The expected loss on the dilution risk of purchased receivables shall be calculated according to the following formula:



where

EL_D is the expected loss for the dilution risk,

PD_D is the PD for the dilution risk,

LGD_D is the loss rate for the dilution risk.

§ 67. Expected losses on equity exposures

(1) To equity exposures whose risk weights are calculated according to the Simple Risk Weight Approach the following expected loss values shall be applied:

- 1) 0.8% for private equity exposures in sufficiently diversified portfolios;
- 2) 0.8% for exchange traded equity exposures;
- 3) 2.4% for all other equity exposures.

(2) The expected loss amounts for equity exposures whose risk weights are calculated pursuant to the PD/LGD Approach shall be calculated according to the following formula:



(3) To equity exposures whose risk weights are calculated according to the Internal Models Approach a 0% EL value shall be applied.

§ 68. Expected losses on other non-credit-obligation assets

The EL of other non-credit-obligation assets shall be 0%.

§ 69. Expected losses on securitised exposures

The expected loss amounts for securitised exposures shall be calculated pursuant to the procedure established in Subdivision 4.

§ 70. Expected losses on shares and units of CIUs

The expected loss amounts for shares and units of CIUs shall be calculated pursuant to the procedure established in section 67.

Sub-subdivision 4 Credit risk parameters

§ 71. Probability of default (PD) of central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies

(1) The PDs of exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies shall be determined at the level of at least 0.03%.

(2) The PD of obligors in default shall be 100%.

§ 72. Probability of default (PD) of purchased corporate receivables

(1) For purchased corporate receivables in respect of which a credit institution cannot demonstrate that its PD estimates meet the minimum requirements set out in Sub-subdivision 4 of this Subdivision, the PDs for these exposures shall be determined according to the following methods:

- 1) for senior claims on purchased corporate receivables the PD shall be the credit institution's estimate of EL divided by LGD for these receivables;
- 2) for subordinated claims on purchased corporate receivables the PD shall equal the credit institution's estimate of EL.

(2) If a credit institution is using the Advanced IRB Approach for corporate exposures and it can decompose its EL estimates for purchased corporate receivables into PDs and LGDs in a reliable manner, the PD of purchased corporate receivables may be based upon the estimate of EL.

§ 73. Recognition of unfunded credit protection in assessing the PD and LGD of central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies

(1) In assessing the PD of central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies, credit institutions may recognise unfunded credit protection in accordance with the requirements established in Subdivision 3 of this Division.

(2) Where a credit institution uses the Advanced IRB Approach, it may recognise unfunded credit protection meeting the requirements established in Subdivision 3 of this Division in assessing PD or LGD. An adjusted risk weight assigned as a result of recognition of unfunded credit protection shall not be lower than that of a comparable, direct exposure to the credit protection provider.

§ 74. LGD of central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies

(1) In the absence of eligible collateral meeting the requirements established in Subdivision 3 of this Division, central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies shall be assigned the following LGDs:

- 1) senior exposures: 45%;
- 2) subordinated exposures: 75%.

(2) Credit institutions may recognise funded and unfunded credit protection in the assessment of LGD pursuant to the procedure established in Subdivision 3 of this Division.

(3) Covered bonds as defined in section 36 of this Decree may, as a rule, be assigned an LGD value of 12.5%. An LGD value of 11.25% may be assigned to covered bonds in the following cases:

- 1) covered bonds are collateralised with assets set out in clauses 36 (1) 1)-3) and the bonds all qualify for credit

quality step 1 pursuant to the procedure established Sub-subdivision 2 of Subdivision 1 of this Division;
2) covered bonds are collateralised with assets set out in clauses 36 (1) 4) and 5) within the limits set out in these clauses, provided that the collateralising assets do not exceed 10% of the nominal amount of the outstanding issue;
3) the covered bonds are the subject of an external credit assessment by an eligible ECAI that has placed them in the most favourable category of credit assessment that the ECAI could make in respect of covered bonds.

(4) For purchased corporate receivables in respect of which a credit institution cannot demonstrate that its PD estimates meet the minimum requirements set out in Sub-subdivision 4 of this Subdivision, the LGDs for these exposures shall be 45% for senior purchased corporate receivables and 100% for subordinated purchased corporate receivables.

(5) If a credit institution uses the Advanced IRB Approach for corporate exposures and it can decompose its EL estimates for purchased corporate receivables into PDs and LGDs in a reliable manner, the LGD of purchased corporate receivables may be based upon the estimate of EL.

§ 75. Recognition of unfunded credit protection in assessing the LGD of central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies

(1) Where a credit institution uses the Advanced IRB Approach, it may recognise unfunded credit protection in assessing the PD and LGD of central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies with the approval of the Financial Supervision Authority. An adjusted risk weight assigned as a result of recognition of unfunded credit protection shall not be lower than that of a comparable, direct exposure to the credit protection provider.

(2) Where a credit institution uses the method set out in subsection 51 (1), the LGD shall be the LGD associated with either the credit protection provider or the obligor, depending upon whether available evidence and the structure of the credit protection indicate that the amount recovered would depend on the financial condition of the credit protection provider or obligor, respectively.

§ 76. Maturities of exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies under the Foundation IRB Approach

(1) Unless otherwise established in this Decree, the maturity of exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies shall be 2.5 years.

(2) The maturity of exposures arising from repurchase transactions or securities or commodities lending or borrowing transactions shall be 0.5 years.

§ 77. Maturities of exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies included under the Advanced IRB Approach

(1) Where a credit institution uses the Advanced IRB Approach, exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies shall be assigned the maturity values specified in subsections (2)-(6) of this section, but not more than 5 years.

(2) For exposures arising from receivables received under a cash flow schedule, the maturity shall be calculated according to the following formula:

 ,

where CF denotes the cash flow (principal, interest payments and fees) contractually payable by the obligor in period t .

(3) For derivatives subject to a master netting agreement, the maturity shall be the weighted average residual maturity of the exposure of at least one year, with the notional amount of each exposure being used for weighting the maturity.

(4) For exposures arising from fully or nearly-fully collateralised derivative instruments (specified in Sub-subdivision 2 of Subdivision 6 of this Division) transactions and fully or nearly-fully collateralised margin lending transactions which are subject to a master netting agreement, the maturity shall be the weighted average residual maturity of the transactions of at least 10 days, with the notional amount of each exposure being used for weighting the maturity.

(5) If a credit institution is permitted to use own PD estimates for purchased corporate receivables, the maturity shall equal the purchased receivables' exposure weighted average maturity of at least 90 days. The same maturity value may also be used for undrawn amounts under a committed purchase facility provided that the facility contains effective covenants that protect the purchasing credit institution against a significant deterioration in the quality of the future receivables it is required to purchase over the facility's term. In the absence of such covenants, the maturity for undrawn amounts shall be calculated as the sum of the longest-dated potential receivable under the purchase agreement and the residual maturity of the purchase facility, but at least 90 days.

(6) For any other instrument than those mentioned in subsections (2)-(5) of this section the maturity shall be the maximum remaining time that the counterparty is permitted to take to fully discharge its contractual obligations, but at least one year.

§ 78. Maturities of exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies under the Internal Models Approach

(1) The credit institutions that are permitted to use the Internal Models Approach for calculation of exposure values pursuant to the procedure established in Sub-subdivision 7 of Subdivision 6 of this Division shall calculate the maturity for exposures to which they apply this approach and for which the maturity of the longest-dated contract contained in the netting set is greater than one year according to the following formula:



where df denotes the risk-free discount factor for future time period and the remaining symbols correspond to the symbols used in Subdivision 6 of this Division.

(2) A credit institution that uses an internal model to calculate a one-sided credit valuation may use, subject to the approval of the Financial Supervision Authority, the modified duration model.

(3) In the case of fully or nearly-fully collateralised derivative instruments set out in Sub-subdivision 7 of Subdivision 6 of this Division, fully or nearly-fully collateralised margin lending transactions, repurchase transactions, securities lending or borrowing transactions, the minimum maturity may be one day, provided that documentation relating to such transactions requires daily re-margining and daily revaluation of collateral and includes provisions that allow for the prompt liquidation of collateral in the event of default or failure to re-margin.

(4) Maturity mismatches shall be treated as specified in section 160.

§ 79. PDs of retail exposures

(1) The PD of a retail exposure shall be determined at the level of at least 0.03%.

(2) The PD of obligors or, where an obligation approach is used, of exposures in default shall be 100%.

(3) In assessing the PDs of retail exposures, unfunded credit protection may be recognised in accordance with section 80.

§ 80. LGDs of retail exposures

(1) Credit institutions shall provide their own estimates of LGDs subject to minimum requirements as specified in Sub-subdivision 6 of this Division.

(2) Subject to the approval of the Financial Supervision Authority, unfunded credit protection may be recognised in

determining the PD and LGD estimates of an individual retail exposure or a pool of retail exposures. An adjusted risk weight assigned as a result of recognition of unfunded credit protection shall not be lower than that of a comparable, direct exposure to the credit protection provider.

(3) Where a credit institution uses the formula set out in subsection 51 (1) for calculation of the risk weights of retail exposures, the LGD shall be the LGD associated with either the credit protection provider or the obligor, depending upon whether available evidence and the structure of the guarantee indicate that the amount recovered would depend on the financial condition of the credit protection provider or obligor, respectively.

§ 81. Risk parameters for dilution risk of purchased receivables

(1) For dilution risk of purchased receivables the PD shall equal the credit institution's EL estimate for dilution risk. The EL shall be 75%, except in the cases specified in subsections (2) and (3) of this section.

(2) For purchased receivables, the PD and LGD estimates calculated on the basis of the expected loss for the dilution risk may be used, provided that the credit institution can decompose its EL estimates for dilution risk of purchased receivables into PDs and LGDs in a reliable manner.

(3) If a credit institution is using the Advanced IRB Approach for corporate exposures and it can decompose its EL estimates for dilution risk into PDs and LGDs arising from dilution risk in a reliable manner, the PD estimate for dilution risk may be based upon the estimate of EL.

(4) In the case of purchased corporate receivables, unfunded credit protection may be recognised in accordance with Sub-subdivision 2 of Subdivision 3 of this Division in assessing the PD for dilution risk. Subject to the prior approval of the Financial Supervision Authority, unfunded credit protection provided by credit protection providers not listed in that Subdivision may be recognised.

(5) Where a credit institution uses the Advanced IRB Approach, subsection (4) of this section shall be applied on the condition that the credit institution complies with the requirement established in subsection 73 (2).

§ 82. PDs for equity exposures

Where a credit institution uses the PD/LGD Approach to equity exposures as specified in section 59, PDs shall be determined according to the methods for corporate exposures, with a PD being at least:

- 1) 0.09% for exchange traded equity instruments where the issuer is a long-term customer of the credit institution;
- 2) 0.40% for other exchange traded equity instruments and other short positions set out in subsection 58 (2);
- 3) 0.09% for non-exchange traded equity instruments where the returns on the investment are based on regular and periodic cash flow not derived from capital gains;
- 4) 1.25% for all other non-exchange traded equity instruments including other short positions set out in subsection 58 (2).

§ 83. LGDs for equity exposures

Equity exposures shall be assigned an LGD of 90%. Equity exposures in sufficiently diversified portfolios shall be assigned an LGD of 65%.

§ 84. Maturities of equity exposures

Equity exposures shall be assigned the maturity of 5 years.

Sub-subdivision 5 Exposure values

§ 85. Exposures to central governments, central banks, credit institutions, investment firms, regional

governments, local authorities and companies

(1) Unless otherwise established in this Decree, the exposure value of on-balance sheet exposures shall be measured not including value adjustments. For purchased receivables, the difference between the amount owed and the net value recorded on the balance-sheet of credit institutions shall be treated as a discount if the amount owed is larger.

(2) The values of exposures arising from operating leases where the credit institution is the lessor shall be determined as follows:

- 1) the discounted value of minimum lease payments, including all contractual payments that the lessee is or can be required to make over the lease term;
- 2) guaranteed residual value of leased property.

(3) In the case of derivative instruments listed in Sub-subdivision 7 of Subdivision 6 of this Division, the exposure values shall be determined according to the methods set out in Subdivision 6 of this Division.

(4) For purchased receivables the exposure value shall be the outstanding amount minus the capital requirement for dilution risk. The capital requirement for dilution risk shall be subtracted prior to the application of credit risk mitigation effects.

(5) For exposures arising from repurchase transactions or securities lending or borrowing transactions, long settlement transactions and margin lending transactions, the exposure value shall be calculated pursuant to the procedure established in sections 131-134 or in Subdivision 3 of this Division, as appropriate. Where the other party to the transaction is a central counterparty, the procedure established in Subdivision 3 of this Division shall be applied, provided that the central counterparty's counterparty credit risk exposures are fully collateralised on a daily basis according to its contracts.

§ 86. Exposure values for contingent claims

(1) In the calculation of exposure values for contingent claims the conversion factors set out in section 87 shall be applied.

(2) A conversion factor indicates the ratio of the currently undrawn amount of a commitment that will be drawn and outstanding upon default to the currently undrawn amount of the commitment. Conversion factors are expressed in percentage.

§ 87. Conversion factors of contingent claims

(1) A conversion factor of 0% shall be applied to exposures arising from undrawn credit lines that are unconditionally cancellable at any time by the credit institution without prior notice, or that effectively provide for automatic cancellation due to deterioration in a borrower's credit worthiness. To apply a conversion factor of 0%, credit institutions shall actively monitor the financial condition of the borrower, and their internal control systems shall enable them to immediately detect a deterioration in the credit quality of the borrower. Undrawn retail credit lines may be considered as unconditionally cancellable if their terms permit the credit institution to cancel them to the full extent allowable under consumer protection and related legislation.

(2) For short-term commercial letters of credit, a conversion factor of 20% shall apply for both the issuing and confirming institutions.

(3) For undrawn purchase commitments for purchased receivables that are unconditionally cancellable or that effectively provide for automatic cancellation at any time without prior notice, a conversion factor of 0% shall apply. To apply a conversion factor of 0%, credit institutions shall actively monitor the financial condition of the obligor, and their internal control systems shall enable them to immediately detect a deterioration in the credit quality of the obligor.

(4) To exposures arising from other undrawn credit lines and securities issuance facilities a conversion factor of 75% shall apply.

(5) Credit institutions which meet the requirements established in section 92 and employ the Advanced IRB Approach with the approval of the Financial Supervision Authority shall use their own estimates of conversion factors for the exposures listed in subsections (1)-(4) of this section.

(6) Where a commitment of the credit institution refers to the extension of another commitment, the lower of the two conversion factors associated with the individual commitment shall be used.

(7) Exposures arising from contingent claims other those mentioned in this section shall be assigned to risk categories pursuant to the procedure established in Subdivision 5 of this Division and the conversion factors set out in that Subdivision shall be applied to them.

(8) Subject to the existence of credit protection meeting the criteria set out in Subdivision 3 of this Division, conversion factors shall be applied after the adjustment of the credit risk on account of the credit protection.

§ 88. Exposure values of equity exposures

The values of equity exposures shall be determined as follows:

- 1) for investments recognised at fair value in financial statements, the exposure value is the fair value presented in the balance sheet;
- 2) for investments recognised at cost or lower value in financial statements, the exposure value is the cost value presented in the balance sheet.

§ 89. Exposure values of other non-credit-obligation assets

The exposure values of other non credit-obligation assets shall be their balance sheet values.

Sub-subdivision 6 Minimum requirements for estimating risk parameters

§ 90. Requirements on estimating the PDs of central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies

- (1) Credit institutions shall estimate the PDs for exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies across obligor grades on the basis of average one-year default rates over as long observation period as possible.
- (2) For purchased corporate receivables, credit institutions may estimate ELs. ELs shall be estimated across obligor grades on the basis of average one-year realised default rates over as long an observation period as possible.
- (3) If a credit institution derives the estimates of PDs and LGDs for purchased corporate receivables from an estimate of foreseeable or expected loss, it shall meet the overall requirements for estimation of PDs and LGDs set out in this Division.
- (4) Credit institutions shall estimate PDs only with supporting analysis that takes into account known additional information and possible mistakes arising from limitations of techniques and source data used.
- (5) To the extent that a credit institution uses internal reference data for estimating PDs, it shall be able to demonstrate that the estimates are reflective of underwriting standards and of any differences between the rating system that generated the reference data and the current rating system. Where underwriting standards or rating systems have changed, the credit institution shall add a greater margin of conservatism in its estimate of PD.
- (6) To the extent that in estimating PDs a credit institution uses the PD estimates that correspond to grades used by

credit assessment agencies or similar organisations, attributing them to the credit institution's internal grades, the classification shall be based on a comparison of the credit institution's internal rating criteria to the criteria used by the external organisation and on a comparison of the internal and external ratings of the same object of rating. The credit institution's analysis shall include, *inter alia*, an assessment of conformity of the definition of PD used by the credit assessment agency to the requirements established in section 86²² of the Credit Institutions Act. The credit institution shall document the principles of determining PDs on the basis of external assessments.

(7) To the extent that a credit institution uses statistical models in estimating PDs, it is allowed to estimate PDs as the simple average of default-probability estimates for individual obligors in a given grade calculated in accordance with statistical models, provided that these statistical models meet the requirements established in section 86¹⁹ of the Credit Institutions Act.

(8) Irrespective of whether a credit institution is using internal or external input data, statistical models or a combination of the three, for its PD estimation, the length of the underlying historical observation period used shall be at least five years for each source. If the available observation period spans a longer period for any source and the data are relevant, the data obtained from the longer period shall be used.

(9) Credit institutions that are not using their own estimates of LGDs shall, when they adopt the Foundation IRB Approach, comply with the requirement concerning the length of observation period as established in subsection 86²⁵ (4) of the Credit Institutions Act.

§ 91. Requirements on estimating the credit risk parameters of retail exposures

(1) Credit institutions shall estimate PDs of retail exposures by obligor grades or pools in accordance with subsection 86²⁵ (2) of the Credit Institutions Act.

(2) For retail exposures, PD estimates may also be derived from realised losses and appropriate estimates of LGDs.

(3) For retail exposures, credit institutions shall use internal information used in assigning exposures to grades or pools as the first source for estimating the credit risk parameters. To estimate the credit risk parameters, a credit institution may use external reference data or statistical methods, provided that the credit institution can demonstrate that its procedures for assigning retail exposures to grades and pools and its internal risk profile are essentially similar to the procedures and internal risk profile used by the source of external data.

(4) If a credit institution derives the estimates of PDs and LGDs for retail exposures from an EL estimate, it shall meet the overall requirements for estimation of PDs and LGDs set out in this Division in determining credit risk parameters.

(5) For purchased retail receivables, credit institutions may use external and internal reference data. Credit institutions shall use all relevant data sources as points of comparison.

(6) Irrespective of whether a credit institution is using external, internal or pooled data sources or a combination of the three, for their estimation of risk parameters, the length of the underlying historical observation period used shall be at least five years for each source. If the available observation period spans a longer period for any source and the data are relevant, the data obtained from the longer period shall be used.

(7) When credit institutions adopt the Internal Ratings Based Approach, they shall comply with the requirement concerning the length of observation period as established in subsection 86²⁵ (4) of the Credit Institutions Act as regards retail exposures.

(8) A credit institution need not give equal importance to historic data in estimating credit risk parameters if it can demonstrate that more recent data provide a more reliable result.

(9) Credit institutions shall identify and analyse expected changes of risk parameters over the life of credit exposures

(seasoning effects).

§ 92. Overall requirements on credit institutions' own estimates of LGDs

- (1) Credit institutions shall estimate LGDs by facility grade or pool on the basis of the realised LGDs using all defaults over the observation period. An LGD estimate is the average realised LGD, weighted by the number of defaults.
- (2) Credit institutions shall use LGD estimates that take into account the impact of an economic downturn and are, if appropriate, more conservative than the long-run average of LGDs. To the extent a rating system is expected to deliver realised LGDs at a constant level over time, credit institutions shall make adjustments to their LGD estimates so as to ensure that the impact of an economic downturn would not materially increase the capital requirement.
- (3) For the specific case of exposures that are already in default, the credit institution shall use its estimate of expected loss for each exposure given current economic circumstances and exposure status and the possibility of additional losses. To the extent that overdue fees have been capitalised in the credit institution's income statement, they shall be added to the exposure value and included in the credit institution's measure of expected loss.
- (4) Upon adoption of the own-estimates method, the credit institution's estimates of LGD arising from exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies shall be based on data obtained over an observation period of at least five years. The observation period shall be increased by one year each year after adoption until a minimum of seven years is reached. If the available observation period spans a longer period for any source and the data are relevant, the data obtained from the longer period shall be used.
- (5) For retail exposures the credit institution's estimates of LGD shall be based on data obtained over an observation period of at least five years. Upon adoption of the Internal Ratings Based Approach, credit institutions shall comply with the requirement concerning the length of observation period as established in subsection 86²⁵ (6) of the Credit Institutions Act.

§ 93. Specific requirements on credit institutions' own estimates of LGD for retail exposures

- (1) LGD estimates for retail exposures may be derived from realised losses and appropriate up-to-date estimates of PDs.
- (2) A credit institution need not give equal importance to historic data in estimating LGDs if it can demonstrate that more recent data provide a more reliable result.
- (3) Where no conversion factor has been applied to an exposure, a possible future increase of the exposure shall be taken into account in estimating the LGD.
- (4) For purchased retail receivables credit institutions may use external and internal reference data to estimate LGDs.

§ 94. Recognition of collateral in credit institutions' own estimates of LGD

- (1) To the extent that LGD estimates take into account the existence of collateral, credit institutions shall establish internal requirements for collateral management, legal certainty and risk management that are consistent with those set out in Subdivision 3 of this Division.
- (2) LGD estimates shall not solely be based on the collateral's estimated market value, but shall take into account the effect of the potential inability of credit institutions to gain control of their collateral and liquidate it.
- (3) In estimating LGDs a credit institution shall consider the extent of any dependence between the risk of the obligor with that of the collateral or collateral provider. Cases where there is a significant degree of dependence shall be addressed in a more conservative manner.

(4) Currency mismatches between the exposure and the collateral shall be treated conservatively in the credit institution's assessment of LGD.

(5) To the extent that a credit institution has recognised collateral for determining the exposure value for a counterparty credit risk according to Subdivision 6 of this Division, any amount expected to be recovered from the collateral shall not be taken into account in the LGD estimates.

§ 95. Requirements specific to own-conversion factor estimates

(1) Credit institutions shall estimate conversion factors by facility grade or pool on the basis of the realised conversion factors by facility grade or pool using all observed defaults. A credit institution's own conversion factor estimate is the average conversion factor, weighted by the number of defaults.

(2) A credit institution need not give equal importance to historic data in estimating conversion factors if it can demonstrate that more recent data provide a more reliable result.

(3) Credit institutions shall use conversion factor estimates that take into account the impact of an economic downturn and are, if appropriate, more conservative than the long-run average of conversion factors. To the extent a rating system is expected to deliver conversion factors at a constant level over time, credit institutions shall make adjustments to their conversion factors so as to ensure that the impact of an economic downturn would not materially increase the capital requirement.

(4) Credit institutions' estimates of conversion factors shall reflect the possibility of additional drawings by the obligor up to and after the time a default event is triggered.

(5) To the extent that a credit institution does not take into account an undrawn amount of a commitment in estimating the LGD, the same shall be taken into account in estimating conversion factors.

(6) The conversion factor estimate shall incorporate a larger margin of conservatism where a stronger positive correlation can reasonably be expected between the default frequency and the magnitude of conversion factor.

(7) In estimating conversion factors credit institutions shall consider their specific policies and strategies adopted in respect of account monitoring and payment processing, as well as their ability and willingness to prevent further drawings in circumstances short of payment default.

(8) For the purpose of using their own estimates of conversion factors, credit institutions shall have adequate systems and procedures in place to monitor, on a daily basis, facility amounts, current amounts outstanding against committed lines and changes in amounts outstanding per obligor and per grade.

(9) If credit institutions use different estimates of conversion factors for the calculation of risk-weighted exposure amounts and internal purposes, the reasons for using different conversion factors shall be documented and their reasonableness shall be demonstrated to the Financial Supervision Authority.

(10) Upon adoption of the own-estimates method, the credit institution's estimates of conversion factors for exposures to central governments, central banks, credit institutions, investment firms, regional governments, local authorities and companies shall be based on data obtained over an observation period of at least five years. The observation period shall be increased by one year each year until a minimum of seven years is reached. If the available observation period spans a longer period for any source and the data are relevant, the data obtained from the longer period shall be used.

(11) For retail exposures the credit institution's estimates of conversion factors shall be based on data obtained over an observation period of at least five years. Upon adoption of the Internal Ratings Based Approach, credit institutions may use relevant data covering a period of two years subject to the prior written approval of the Financial Supervision Authority. The period to be covered shall then be increased by one year each year until relevant data cover a period of five years.

§ 96. Treatment of guarantees

(1) Where a credit institution uses the Advanced IRB Approach and treats exposures to central governments and central banks in accordance with Subdivision 1 of this Division, the requirements specified in Subdivision 3 of this Division shall be applied to guarantees provided by central governments and central banks.

(2) In assigning retail exposures to grades or pools and in the estimation of PDs, guarantees held by credit institutions shall only be taken into account if they comply with the requirements established in sections 97-100.

§ 97. Requirements concerning guarantors

(1) Credit institutions shall have clearly specified criteria for the types of guarantors they recognise for the calculation of risk-weighted exposure amounts.

(2) In assigning guarantors to grades the same rules of as for obligors shall apply.

§ 98. Requirements specific to guarantees

(1) A guarantee shall be evidenced in writing and meet the following requirements:

- 1) the guarantor is not entitled to cancel the guarantee unilaterally;
- 2) the guarantee is in force until the obligation is satisfied in full;
- 3) the guarantee is legally enforceable against the guarantor in a jurisdiction where the guarantor has assets to attach and enforce a judgement.

(2) Guarantees prescribing conditions under which the guarantor may not be obliged to perform (conditional guarantees) may be recognised in the calculation of risk-weighted exposure amounts subject to the prior written approval of the Financial Supervision Authority. The credit institution shall demonstrate that any resulting potential reduction in the risk mitigation effect has been adequately taken account of.

§ 99. Guarantee-related adjustment criteria

A credit institution shall have clearly specified criteria for adjusting grades, pools or LGD estimates, and, in the case of retail and purchased receivables, the process of allocating exposures to grades or pools, to reflect the impact of guarantees for the calculation of risk-weighted exposure amounts. These criteria shall comply with the requirements set out in sections 86¹⁵-86¹⁹ of the Credit Institutions Act and address the guarantor's ability and willingness to perform under the guarantee, the likely timing of any payments from the guarantor, the degree to which the guarantor's ability to perform under the guarantee is correlated with the obligor's ability to repay, and the extent to which residual risk to the obligor remains.

§ 100. Treatment of credit derivatives

(1) The requirements specific to guarantees established in this Division shall apply also to credit derivatives whose underlyings are debt instruments for which the impact of the credit derivative is taken into account in calculating risk-weighted exposure amounts. In the case of a mismatch between the debt instrument underlying a credit derivative and the debt instrument whose credit risk the credit institution intends to mitigate with the credit derivative, the requirements established in Subdivision 3 of this Division shall apply.

(2) In allocating retail exposures and purchased receivables to grades or pools, subsection (1) of this section applies to the protection arising from credit derivatives.

(3) The criteria for credit derivatives related adjustments shall address the structure and timing of payments relating to credit derivatives and assess additional risks arising from credit derivatives.

§ 101. Requirements specific to purchased receivables

(1) The structure of the facility shall ensure that the credit institution has effective ownership and control of all cash remittances from the receivables. When the obligor makes payments directly to a seller or servicer that manages a pool of purchased receivables on a day-to-day basis, the credit institution shall verify regularly that payments are forwarded completely and within the contractually agreed terms.

2) A credit institution shall have procedures to ensure that its ownership of the receivables and cash receipts is protected in bankruptcy proceedings or other legal disputes that could delay the exercise of the credit institution's rights.

§ 102. Monitoring and inspection of purchased receivables

(1) Credit institutions shall assess the correlation among the quality of the purchased receivables and the financial condition of the seller or servicer, and have in place internal policies and procedures that provide adequate safeguards to protect against any contingencies, including the assignment of an internal risk rating for each seller and servicer.

(2) Credit institutions shall have policies and procedures for determining the eligibility of sellers of receivables and of servicers. Credit institutions shall conduct periodic reviews of sellers and servicers in order to verify the quality of and compliance with their credit policies, to verify the accuracy of their reports and to detect possible frauds. The findings of these reviews shall be documented.

(3) Credit institutions shall assess the characteristics of the purchased receivables pools, including over-advances, history of the seller's arrears, the rate of bad debts, and bad debt allowances, payment terms, and potential contra accounts.

(4) Credit institutions shall have internal policies and procedures for monitoring on an aggregate basis single-obligor concentrations both within and across purchased receivables pools.

(5) Credit institutions shall ensure that they receive from the servicers timely and sufficient information about the ageing and dilution of receivables to ensure compliance with the minimum requirements established in this Division for purchased receivables.

(6) Credit institutions shall have internal policies and procedures for detecting deteriorations in the seller's financial condition and purchased receivables quality at an early stage, and for addressing emerging problems. Such internal policies and procedures shall, in particular, provide for detecting covenant violations and for dealing with problem purchased receivables.

§ 103. Controlling collateral, credit availability and cash relating to purchased receivables

(1) Credit institutions shall have internal policies and procedures governing the control of purchased receivables, credit, and cash. In particular, these internal policies shall specify all material elements of the receivables purchase program, including the advancing rates, eligible collateral, necessary documentation, concentration limits, and the way cash receipts are to be handled. The internal policies shall also take account of all relevant and material factors, including the seller's and servicer's financial condition, risk concentrations, and trends in the quality of the purchased receivables and the seller's customer base. The internal policies shall ensure that funds are advanced only against specified supporting collateral and documentation.

(2) Credit institutions shall have an effective internal process for assessing compliance with all internal policies and procedures. The process shall include audits of all critical phases of the credit institution's receivables purchase program, verification of the separation of duties between firstly the assessment of the seller and servicer and the assessment of the obligor and secondly between the assessment of the seller and servicer and the audit of the seller and servicer. In the course of these audits, particular attention shall be paid to the sufficiency of staffing levels, qualifications, experience, and supporting IT systems.

Sub-subdivision 7

Calculation of risk-weighted exposure amounts for equity exposures under the Internal Models Approach

§ 104. Requirements for estimating potential loss on equity exposures

- (1) The estimate of potential loss shall adequately take into account the adverse market movements that are relevant to the long-term risk profile of the credit institution's equity exposures.
- (2) The data used to represent return distributions shall reflect the longest observation period for which data are available and be meaningful in representing the risk profile of the credit institution's specific equity exposures.
- (3) The data used shall be sufficient to provide conservative, statistically reliable and adequate loss estimates that are not based purely on subjective considerations.
- (4) Credit institutions shall demonstrate that the stress scenario employed provides a conservative estimate of potential losses over a relevant long-term market or business cycle.
- (5) Credit institutions shall combine empirical analysis of available data with adjustments based on a variety of factors in order to attain model outputs that achieve appropriate realism and conservatism.
- (6) In constructing models estimating potential quarterly losses, credit institutions may use quarterly data or convert shorter horizon period data to a quarterly equivalent using an appropriate documented method supported by empirical evidence. Such an approach shall be applied conservatively and consistently over time.
- (7) Where only limited relevant data are available, credit institutions shall add appropriate margins of conservatism to their estimates of potential losses.

§ 105. Requirements for internal models employed for the purpose of calculating risk-weighted exposure amounts for equity exposures

- (1) The models used for the purpose of calculating risk-weighted exposure amounts for equity exposures shall capture all risks embodied in equity returns including both the general market risk and specific risk exposure of the credit institution's equity portfolio. The internal models shall adequately explain historical price variations, cover potential concentrations of risks and also be reliable in the case of adverse market environments. The population of risk exposures represented in the data used for estimation shall be closely matched to or at least comparable with those of the credit institution's equity exposures.
- (2) The internal model shall be appropriate for the risk profile and complexity of a credit institution's equity portfolio. Where a credit institution has material holdings with values that are perceptibly non-linear in nature the internal models shall be designed to appropriately capture the risks associated with such holdings.
- (3) Mapping of individual positions to market indices and risk factors shall be plausible, clear and relevant.
- (4) Credit institutions shall demonstrate through empirical analyses the appropriateness of risk factors, including their ability to cover both general and specific market risks.
- (5) The estimates of the return volatility of equity exposures shall incorporate relevant and available data, information, and methods. Independently reviewed internal data or data from external sources (including pooled data) may be used.
- (6) Credit institutions shall have a conservative and comprehensive stress-testing programme in place.

§ 106. Risk management process and controls

- (1) Credit institutions shall have systems, procedures and control mechanisms to ensure the reliability of using internal models. These systems, procedures and control mechanisms shall comprise at least the rules and activities listed in subsections (2)-(6) of this section.
- (2) An internal model shall be fully integrated into the risk management system of the credit institution and in the

management of the non-trade portfolio equity portfolio. An internal model is fully integrated into the credit institution's risk management system if it is used in measuring and assessing the non-trade portfolio equity portfolio and risks arising from the equity exposures, allocating economic capital to equity exposures and evaluating overall capital adequacy and the investment management process.

(3) The management and control systems of a credit institution shall provide for periodic and independent review of internal models and reference data used in these models. These reviews shall assess, *inter alia*, the accuracy, completeness, and appropriateness of model inputs and results and focus on both finding and limiting potential errors associated with known weaknesses and identifying unknown model weaknesses. Such reviews shall be conducted by an internal independent unit of the credit institution, or by an equivalent independent external third party.

(4) Credit institutions shall have adequate systems and procedures for monitoring investment limits and the risk exposures of equity exposures.

(5) The units responsible for the design and application of the model shall be functionally independent from the units responsible for making and managing individual investments.

(6) Persons responsible for any aspect of designing and implementing the models shall be adequately qualified. The management of a credit institution shall allocate sufficient skilled and competent resources to the modelling function.

§ 107. Validation and documentation of models

(1) Credit institutions shall have a reliable system in place to validate the accuracy and consistency of their internal models and modelling processes. All material stages of the models' validation process shall be documented.

(2) Credit institutions shall use the internal validation process to assess the performance of its internal models and processes in a consistent and objective way.

(3) The methods and data used for quantitative validation shall be consistent through time. Changes in estimates, validation methods and databases shall be documented.

(4) Credit institutions shall regularly compare actual equity returns (computed using realised and unrealised gains and losses) with modelled estimates. Such comparisons shall make use of historical data that cover as long a period as possible. The credit institution shall document the methods and data used in such comparisons. The analysis and documentation shall be updated at least annually.

(5) In the validation of models credit institutions shall make use of other quantitative validation tools and comparisons with relevant external data sources, as well. The analysis shall be based on external data that are appropriate to the credit institution's portfolio of equity exposures, are updated regularly, and cover a relevant observation period. Credit institutions' internal assessments of the accuracy of their internal models shall be based on as long an observation period as possible.

(6) Credit institutions shall have internal standards for situations where comparisons of the actual returns on equity exposures with the estimates arrived at by means of internal models call the reliability of the internal models into question. These standards shall take account of variations in returns on equity exposures arising from business cycles and similar factors. All adjustments made to internal models shall be documented and consistent with the credit institution's model review standards.

(7) The structure of an internal model and the modelling process shall be documented. Among others, the responsibilities of persons involved in the modelling and in the use, validation and review of models shall be documented.

Subdivision 3 Credit risk mitigation

Sub-subdivision 1

Funded credit protection facilities recognised in the calculation of risk-weighted exposure amounts or expected loss amounts

§ 108. General requirements for recognising funded credit protection facilities

- (1) To be recognised in the calculation of risk-weighted exposure amounts or expected loss amounts, a funded credit protection facility shall meet the requirements established in this Sub-subdivision and in section 86³⁰ of the Credit Institutions Act.
- (2) The degree of correlation between the value of the assets relied upon for funded credit protection and the credit quality of the obligor shall not be undue.
- (3) Where a credit institution employs the Standardised Approach to credit risk as established in Subdivision 1 of this Division, the funded credit protection facilities specified in sections 109-112 of this Decree may be recognised in the calculation of risk-weighted exposure amounts.
- (4) Where a credit institution employs the Foundation IRB Approach to credit risk as established in Subdivision 2 of this Division, the funded credit protection facilities specified in sections 109-119 may be recognised in the calculation of risk-weighted exposure amounts and expected loss amounts.

§ 109. On-balance sheet netting

- (1) In the calculation of risk-weighted exposure amounts and expected loss amounts, a credit institution may net its claims against the claims of its obligor which derive from the loan issued by the credit institution to the obligor and the deposit made by the obligor in the credit institution, provided that the option of netting is established in an agreement between the credit institution and the obligor.
- (2) Eligible agreements on on-balance sheet netting shall be legally binding and enforceable in the relevant jurisdiction, including in the event of the insolvency or bankruptcy of a counterparty.
- (3) For on-balance sheet netting to be eligible, a credit institution shall:
 - 1) be able to determine at any time those assets and liabilities that are subject to the on-balance sheet netting agreement;
 - 2) monitor and control the risks associated with the termination of the credit protection; and
 - 3) monitor and control the relevant exposures on a net basis.
- (4) Loans and deposits with the lending credit institution subject to on-balance sheet netting shall be treated as cash collateral in the calculation of risk-weighted exposure amounts or expected loss amounts.

§ 110. Master netting agreements for repurchase transactions, securities lending or borrowing transactions and other capital market-driven transactions

- (1) Collateral taken in connection with repurchase transactions, securities lending transactions and other capital market-driven transactions, and securities borrowed in connection with securities borrowing transactions shall be treated as financial collateral and shall be recognised on the condition that the credit institution adopts the Financial Collateral Comprehensive Method for the calculation of risk-weighted exposure amounts and expected loss amounts as established in section 137.
- (2) "Other capital market-driven transaction" shall mean any transaction whose terms and conditions include the requirement of regular revaluation of margin and the right of the credit institution to increase the margin, if necessary.
- (3) For master netting agreements covering repurchase transactions, securities lending or borrowing transactions and other capital market-driven transactions to be recognised, they shall meet the following requirements:

- 1) The agreements shall be legally binding and enforceable in the relevant jurisdiction, including in the event of the insolvency or bankruptcy of a counterparty.
 - 2) The agreements shall give the non-defaulting party the right of early termination of all transactions under the agreement and netting of all claims and obligations arising from these transactions upon the event of default, including in the event of the bankruptcy or insolvency of the counterparty.
 - 3) The agreements shall provide for the netting of gains and losses on transactions so that a single net amount is owed by one party to the other.
- (4) To be treated as funded credit protection facilities, collateral taken in connection with repurchase transactions, securities lending transactions and other capital market-driven transactions, and securities borrowed in connection with securities borrowing transactions shall be included in the financial collateral specified in sections 111 and 112 and meet the requirements established in section 113.

§ 111. Financial collateral

(1) In the calculation of risk-weighted exposure amounts or expected loss amounts, credit institution may recognise the following financial collateral:

- 1) cash on deposit with, or cash assimilated instruments held by, the lending credit institution;
- 2) debt instruments issued by central governments and central banks or by regional governments, local authorities and administrative bodies that are treated similarly to central governments under Subdivision 2 of this Decree, if these instruments have a credit assessment by an eligible ECAI or a risk category by an export credit agency recognised as eligible under subsection 86⁵ (5) of the Credit Institutions Act which has been determined to be corresponding to credit quality step 4 or above under the procedure established in Sub-Subdivision 2 of Subdivision 1 of this Division;
- 3) debt instruments issued by multilateral development banks specified in subsection 29 (2) of this Decree;
- 4) debt instruments issued by international organisations specified in subsection 30 (2) of this Decree;
- 5) debt instruments issued by credit institutions and investment firms or by regional governments, local authorities and administrative bodies other than those mentioned in clause 1) of this subsection, if these instruments have a credit assessment by an eligible ECAI which has been determined to be corresponding to credit quality step 3 or above under the procedure established in Sub-Subdivision 2 of Subdivision 1 of this Division;
- 6) debt instruments issued by other legal entities, if these instruments have a credit assessment by an eligible ECAI which has been determined to be corresponding to credit quality step 3 or above under the procedure established in Sub-Subdivision 2 of Subdivision 1 of this Division;
- 7) short-term debt instruments with a short-term credit assessment by an eligible ECAI which has been determined to be corresponding to credit quality step 3 or above of short-term exposures under the procedure established in Sub-Subdivision 2 of Subdivision 1 of this Division;
- 8) equities and convertible bonds that are included in the main list of a recognised exchange;
- 9) gold.

(2) Debt instruments issued by credit institutions and investment firms which have no credit assessment by an eligible ECAI shall be recognised in the calculation of risk-weighted exposure amounts and expected loss amounts subject to the following conditions:

- 1) the debt instruments are listed on a recognised exchange;
- 2) the debt instruments qualify as senior debt;
- 3) all debt instruments of the same seniority issued by the same issuing institution have a credit assessment by an eligible ECAI which has been determined to be corresponding to credit quality step 3 or above under the procedure established in Sub-Subdivision 2 of Subdivision 1 of this Division;
- 4) the credit institution has no information to suggest that the credit quality of the debt instruments would justify a credit assessment below that indicated in clause 3) of this subsection;
- 5) the credit institution can demonstrate to the Financial Supervision Authority that the market liquidity of the debt instruments is sufficient.

(3) Shares and units of CIUs shall be recognised, if they meet the following requirements:

- 1) the net value of the shares and units of CIUs is calculated and quoted on a daily basis;
- 2) the CIUs are limited to investing in instruments specified in subsections (1) and (2) of this section; the use (or potential use) by a CIU of derivative instruments to mitigate risks shall not prevent units in that CIU from being eligible.

(4) Where a debt instrument has two credit assessments by eligible ECAIs, the less favourable assessment shall be deemed to apply. In cases where a debt instrument has more than two credit assessments by eligible ECAIs, the two most favourable assessments shall be deemed to apply. If the two most favourable credit assessments are different, the less favourable of the two shall be deemed to apply.

(5) Securities issued by the obligor, or any related group entity, are not eligible to be recognised as funded credit protection, except covered bonds falling within the terms of section 36 which are posted as collateral for repurchase transactions, provided that subsection 113 (1) is complied with.

§ 112. Additional financial collateral under the Financial Collateral Comprehensive Method

A credit institution employing the Financial Collateral Comprehensive Method specified in section 137 may recognise the following financial collateral in addition to those specified in section 111:

- 1) equities or convertible bonds not included in a main index but traded on a recognised exchange;
- 2) shares and units of CIUs, provided that their net value is calculated and quoted on a daily basis and the CIUs are limited to investing in instruments specified in section 111 and clause 1) of this section; the use (or potential use) by a CIU of derivative instruments to mitigate risks shall not prevent units in that CIU from being eligible.

§ 113. Requirements specific to recognition of financial collateral

(1) Financial collateral may only be recognised in the calculation of risk-weighted exposure amounts and expected loss amounts if their value is not materially dependent on the obligor's credit quality.

(2) To ensure the legal certainty of eligible financial collateral, a credit institution shall:

- 1) fulfil any contractual and statutory requirements in respect of, and take all steps necessary to ensure, the enforceability of the collateral arrangements under the law applicable to the collateral;
- 2) conduct sufficient legal reviews confirming the enforceability of the collateral arrangements in all relevant jurisdictions.

(3) For financial collateral to be recognised the following requirements shall be complied with:

- 1) credit institutions shall have collateral arrangements properly documented, with a clear and sufficient procedure for the timely liquidation of collateral;
- 2) credit institutions shall employ adequate procedures and processes to estimate and control risks arising from the use of collateral, including risks of credit protection being reduced or terminated, valuation risks, concentration risk arising from the use of collateral and other risks;
- 3) credit institutions shall establish, in writing, a list of financial collateral accepted for the purpose of credit risk mitigation, the amounts of such collateral and the relevant procedures;
- 4) credit institutions shall calculate the market value of the financial collateral, and revalue it accordingly, with a minimum frequency of once every six months and whenever the credit institution has reason to believe that there has occurred a significant decrease in the market value;
- 5) where the financial collateral is held by a third party, credit institutions shall take reasonable steps to ensure that the third party segregates the collateral from its own assets.

(4) When calculating the effects of financial collateral under the Financial Collateral Simple Method as established in section 135, only the financial collateral whose residual maturity is at least as long as the residual maturity of the exposure may be recognised.

§ 114. Mortgage

(1) Where a credit institution employs the Foundation IRB Approach, it may recognise the following in the calculation of risk-weighted exposure amounts and expected loss amounts:

- 1) mortgages on real estate;
- 2) collateral shares in residential housing companies operating in accordance with the Finnish Housing Company Act.

(2) Mortgages specified in subsection (1) of this section or similar encumbrances on immovable properties may be recognised if the following requirements are met:

- 1) the value of the immovable property encumbered with mortgage does not materially depend upon the credit quality of the obligor, except the effect of factors associated with the economic environment;
- 2) the repayment of the loan does not materially depend on any cash flow generated by the immovable property encumbered with mortgage, and the credit risk of the obligor does not materially depend on the performance of the immovable property encumbered with mortgage.

(3) Where a competent authority of a Member State implements the exemptions permitted by Community law in complying with the requirements established in subsection (2) of this section, mortgages or similar encumbrances on immovable properties in the jurisdiction of that Member State may be recognised on the condition that they meet the requirements established in that Member State.

(4) To be recognised in the calculation of risk-weighted exposure amounts or expected loss amounts, a mortgage shall meet the following requirements:

- 1) the mortgage shall be registered validly and in a timely manner and shall be legally enforceable in all relevant jurisdictions;
- 2) the mortgage contract shall provide for a perfected lien and enable the credit institution to realise the value of the protection arising from the mortgage within a reasonable timeframe pursuant to the procedure established in legislation.

(5) To recognise mortgages in the calculation of risk-weighted exposure amounts or expected loss amounts, credit institutions shall:

- 1) establish a list of types of residential and commercial real estate collateral accepted by the credit institution for the purposes of credit risk mitigation, and principles of lending against such collateral;
- 2) estimate the value of commercial real estate constituting the object of a mortgage at least once a year and the value of residential real estate constituting the object of a mortgage at least once in three years or more frequently in the case of material changes in the real estate market;
- 3) in the cases where existing information indicates that the value of real estate constituting the object of a mortgage may have declined materially relative to general market prices and for loans exceeding EUR 3 million or 5% of the own funds of the credit institution, have the real estate valuation reviewed by an independent valuator who has the necessary qualifications and experience to execute a valuation and who is independent from the credit decision process;
- 4) take necessary measures to ensure that real estate constituting the object of a mortgage is duly insured against damage.

§ 115. Finance lease transactions involving real estate

(1) Exposures arising from finance lease transactions involving real estate shall be treated the same as exposures arising from loans collateralised by real estate.

(2) To be recognised in the calculation of risk-weighted exposure amounts or expected loss amounts, finance lease transactions shall meet the following requirements:

- 1) the object of finance lease shall comply with the requirements established in subsections 114 (1)-(3) and the lessor shall be aware of the location, use and intended termination of use of the object of finance lease;
- 2) the lessor shall have ownership of the asset under effective legislation and be able to legally exercise its rights as the owner at any time.
- (3) the difference between the value of the unamortised amount of the receivable and the market value of the real estate serving as the collateral shall not be so large as to overstate the credit risk mitigation attributed to the leased asset.

§ 116. Pledged receivables as collateral

(1) Where a credit institution employs the Foundation IRB Approach, it may recognise receivables transferred to the credit institution as collateral in the calculation of risk-weighted exposure amounts or expected loss amounts, provided that the receivables are linked to ordinary commercial transactions or other transactions with an original maturity of less than or equal to one year. Eligible receivables do not include amounts owed by parties affiliated with the obligor or receivables associated with securitisations or credit derivatives.

(2) To be recognised in the calculation of risk-weighted exposure amounts or expected loss amounts, pledged receivables shall meet the following requirements:

- 1) the legal mechanism by which the receivables are pledged is legally secure, reliable and effective and ensure that the credit institution has clear rights over proceeds arising from the receivables;
- 2) legislation applicable to pledged receivables in the relevant jurisdiction shall allow the credit institution to have a first priority claim over the collateral;
- 3) agreements underlying the pledge of receivables shall be properly documented, determine *inter alia* the procedure for the collection of collateral and provide for the credit institution's legal authority to sell or assign the pledged receivables to other parties without the consent of the obligor;
- 4) the value of the pledged receivables shall exceed the amount of the exposure at least to the extent necessary for covering the cost of collection of the receivables, concentration risk within the receivables pool pledged by an individual obligor, and the overall concentration risk arising from receivables posted as collateral;
- 5) the receivables pledged by an obligor shall be diversified and not be unduly correlated with the obligor; where there is a material positive correlation, the attendant risks shall be mitigated by a larger margin between the values of pledged receivables and exposures.

(3) To recognise pledged receivables in the calculation of risk-weighted exposure amounts or expected loss amounts, credit institutions shall:

- 1) analyse the enforceability of the collateral arrangements in all relevant jurisdictions;
- 2) establish reliable principles and procedures for determining the credit risk associated with pledged receivables, which shall include, *inter alia*, analyses of the obligor's business and industry and the types of customers with whom the obligor does business;
- 3) constantly monitor the compliance of pledged receivables with the limits of concentration of risks, loan agreement covenants, restrictions arising from the external environment, and other legal requirements;
- 4) establish a procedure for collecting receivable payments in the case of the obligor's solvency problems, including in the cases where the obligor would ordinarily be obliged to collect the payments, and provide for the facilities necessary to that end.

§ 117. Cash on deposit with, or cash assimilated instruments held by, third party institutions

Cash on deposit with, or cash assimilated instruments held by, third party institutions may be recognised if they meet the following requirements:

- 1) the obligor's claim against the third party institution arising from cash on deposit with, or cash assimilated instruments held by that credit institution has been pledged or assigned to the lending credit institution;

- 2) the third party institution with which cash has been deposited or which holds cash assimilated instruments has been notified of the pledge or assignment;
- 3) the third party institution with which cash has been deposited or which holds cash assimilated instruments is entitled to make payments out of the deposit solely to the lending credit institution or to other parties with the lending credit institution's consent;
- 4) the agreement on the pledge or assignment of cash or cash assimilated instruments is unconditional and irrevocable.

§ 118. Life insurance policies

Life insurance policies may be recognised if they meet the following requirements:

- 1) the company providing the life insurance complies with the requirements established in clause 121 (2) 9);
- 2) the life insurance policy has been pledged or assigned to the lending credit institution;
- 3) the company providing the life insurance has been notified of the pledge or assignment and as a result may not pay amounts payable under the insurance contract without the consent of the lending credit institution;
- 4) the declared surrender value of the policy is non-reducible;
- 5) the lending credit institution is entitled to cancel the policy and receive the surrender value in the event of the default of the obligor;
- 6) the lending credit institution is informed of any non-payments under the policy by the policy-holder;
- 7) the insurance cover shall be effective at least until the maturity of the loan or, where the insurance relationship ends before the loan relationship expires, the credit institution shall ensure that the amount deriving from the insurance contract serves the credit institution as security until the maturity of the loan;
- 8) the pledge or assignment must be legally effective and enforceable in all relevant jurisdictions.

§ 119. Securities issued by credit institutions or investment firms which will be repurchased by them

Securities issued by other credit institutions or investment firms may be recognised as eligible credit protection if the issuers are obliged to repurchase the securities on demand.

Sub-subdivision 2

Unfunded credit protection facilities and credit derivatives recognised in the calculation of risk-weighted exposure amounts or expected loss amounts

§ 120. General provisions on the eligibility of unfunded credit protection facilities and credit derivatives

- (1) In the calculation of risk-weighted exposure amounts and expected loss amounts, the credit protection facilities specified in section 86³² of the Credit Institutions Act and the credit derivatives complying with the requirements established in this Sub-subdivision may be recognised as eligible.
- (2) Unfunded credit protection facilities and credit derivatives recognised in the calculation of risk-weighted exposure amounts or expected loss amounts shall meet the following requirements:
 - 1) the credit protection shall constitute a direct claim on the credit protection provider, except in the case specified in section 122 of this Decree;
 - 2) the extent of the credit protection shall be clearly defined and incontrovertible;
 - 3) a credit protection agreement shall not contain any provisions that would allow the protection provider unilaterally to cancel the protection or reduce the maturity of the credit protection or that could increase the effective cost of protection as a result of deteriorating credit quality of the protected exposure or prevent the protection provider from being obliged to pay out in the event that the original obligor fails to make any payments due;
 - 4) credit protection agreements shall be legally effective and enforceable in all relevant jurisdictions.
- (3) A credit institution shall demonstrate to the Financial Supervision Authority that it has systems in place to monitor and manage potential concentration of risks arising from the credit institution's use of unfunded credit protection facilities and credit derivatives, and that these systems accord with its overall risk management arrangements.

§ 121. Unfunded credit protection providers

(1) To be recognised as eligible in the calculation of risk-weighted exposure amounts or expected loss amounts, a third party providing unfunded credit protection shall be sufficiently reliable.

(2) Unfunded credit protection may be recognised in the calculation of risk-weighted exposure amounts or expected loss amounts if the third party who undertakes to satisfy the credit institution's claim in the case of the obligor's default is one of the following:

- 1) a central government or a central bank;
- 2) a regional government or a local authority;
- 3) a multilateral development bank;
- 4) an international organisation specified in subsection 30 (2) of this Decree;
- 5) an administrative body or non-commercial institution or association specified in subsection 28 (2) of this Decree;
- 6) a credit institution or an investment firm;
- 7) other financial institution authorised and supervised by the competent authorities responsible for the authorisation and supervision of credit institutions and subject to prudential requirements equivalent to those applied to credit institutions;
- 8) another corporate entity, including the parent, subsidiary or affiliate corporate entity of the credit institution, that has a credit assessment by an eligible ECAI which has been determined to be corresponding to credit quality step 3 or above under the procedure for the risk weighting of short-term exposures established in Sub-Subdivision 2 of Subdivision 2 of this Division;
- 9) another corporate entity, including the parent, subsidiary or affiliate corporate entity of the credit institution, that does not have a credit assessment by an eligible ECAI, provided that the credit institution in question employs the Foundation IRB Approach in the calculation of risk-weighted exposure amounts and expected loss amounts and has internally rated such a corporate entity as having a PD equivalent to that associated with the credit assessments of ECAIs determined to be corresponding to credit quality step 2 or above.

(3) Where risk-weighted exposure amounts and expected loss amounts are calculated under the Foundation IRB Approach, to be eligible an unfunded credit protection provider must be internally rated by the credit institution.

(4) In the case of the treatment described in subsection 51 (1) of this Decree, credit protection provided by credit institutions, investment firms, insurance and reinsurance companies and export credit agencies may be recognised as eligible on the following conditions:

- 1) the credit protection provider has sufficient expertise in providing credit protection;
- 2) the credit protection provider is regulated in a manner equivalent to the rules laid down in the Credit Institutions Act and this Decree, or had, at the time the credit protection agreement was entered into, a credit assessment by an eligible ECAI which is comparable to credit quality step 3 or above under the procedure established Sub-Subdivision 2 of Subdivision 1 of this Division;
- 3) the credit protection provider has an internal rating with a PD equivalent to or lower than that associated with a credit assessment by an eligible ECAI which would correspond to credit quality step 3 or above under the procedure established Sub-Subdivision 2 of Subdivision 2 of this Division.

(5) For the purposes of assessing compliance with the eligibility criteria established in subsection (3) of this section, credit protection provided by export credit agencies shall not benefit from any explicit central government counter-guarantee.

§ 122. Counter-guarantees by central governments

(1) Guarantees counter-guaranteed by central governments, central banks, regional governments and local authorities specified in subsections 27 (3) and (4), administrative agencies and non-commercial institutions or associations specified in subsection 28 (2) and multilateral development banks specified in subsection 29 (4) may be treated guarantees provided by these entities, if the following conditions are satisfied:

- 1) the counter-guarantee covers all credit risk elements arising from the exposure;
- 2) both the original guarantee and the counter-guarantee meet the requirements established in subsections 120 (2) and (3) and 123 (4), except the requirement for counter-guarantees established in clause 120 (2) 1);
- 3) the credit protection is efficient and nothing in known information suggests that the coverage of the counter-guarantee is less than effectively equivalent to that of a direct guarantee by the entity in question.

(2) Counter-guarantees provided by other institutions shall also be treated as counter-guarantees provided by central governments, if they are in turn guaranteed by one of the entities listed in subsection (1) of this section.

§ 123. Requirements specific to guarantees

(1) To be recognised as eligible in the calculation of risk-weighted exposure amounts or expected loss amounts, guarantees shall meet the following requirements:

- 1) on the default of or non-payment by the obligor, the lending credit institution shall have the right to pursue the guarantor for any monies due under the claim, without the lending credit institution first having to pursue the obligor itself;
- 2) the guarantee shall be an explicitly documented obligation assumed by the guarantor;
- 3) the guarantee shall cover all types of payments the obligor is expected to make in respect of the exposure for which the protection is provided, including the principal, interest and other payments, except in the case specified in subsection (2) of this section.

(2) Where certain types of the obligor's payment obligations arising from the exposure are excluded from the guarantee, the recognised value of the guarantee shall be adjusted to reflect the limited coverage pursuant to the procedure established in Sub-subdivision 2 of this Subdivision.

(3) In the case of residential mortgage loans, the requirement concerning the prevention of the possibility of refusing to pay, as set out in clause 120 (2) 3), and the requirement established in clause 1) of subsection (1) of this section shall be satisfied within 24 months.

(4) In the case of guarantees provided in the context of mutual guarantee schemes recognised for these purposes by the Financial Supervision Authority or provided by or counter-guaranteed by entities referred to in subsection 122 (1), the requirement established in clause 1) of subsection (1) of this section shall be considered to be satisfied where either of the following conditions is met:

- 1) the credit institution has the right to obtain in a timely manner a provisional payment by the guarantor calculated to represent a robust estimate of the amount of the economic loss, including losses resulting from the non-payment of interest and other types of payment which the borrower is obliged to make, likely to be incurred by the lending credit institution proportional to the coverage of the guarantee; or
- 2) the credit institution can demonstrate that the loss-protecting effects of the guarantee, including losses resulting from the non-payment of interest and other types of payments which the borrower is obliged to make, justify the recognition of the guarantee in the calculation of risk-weighted exposure amounts or expected loss amounts.

§ 124. Credit derivatives

(1) The following types of credit derivatives or instruments providing equivalent credit protection may be recognised as eligible for the purpose of calculating risk-weighted exposure amounts or expected loss amounts:

- 1) credit default swaps;
- 2) total return swaps;
- 3) credit linked notes to the extent of their cash funding.

(2) Where a credit institution records payments received on a total return swap as income, the protection provided by such a facility shall be recognised as eligible only on the condition that the credit institution records the deterioration in the value of the protected asset resulting from a decline of credit quality as expenses.

(3) Credit derivatives booked in the trade portfolio which are used for the protection of an instrument in the non-trade portfolio shall be recognised as eligible if they comply with the requirements established in this Division.

§ 125. Requirements specific to credit derivatives

(1) For credit derivatives to be recognised as eligible for the purpose of calculating risk-weighted exposure amounts or expected loss amounts, the credit derivatives shall mitigate the risks of the credit institution at least on the occurrence of the following credit events:

- 1) the failure to pay when due the amounts due under the terms of the obligation underlying the credit derivative, considering the acceptable grace period;
- 2) the bankruptcy, insolvency or inability of the obligor to pay its debts, or its admission in writing of its inability generally to pay its debts as they become due;
- 3) the restructuring of the underlying obligation involving postponement of principal or interest that results in a credit loss event, except in the case specified in subsection (2) of this section.

(2) Where the credit events specified under the credit derivative do not include restructuring of the underlying obligation, the credit protection may nonetheless be recognised subject to a reduction in the recognised value as specified in Sub-subdivision 2 of this Subdivision.

(3) For credit derivatives allowing for cash settlement, the credit institution shall have the principles of loss valuation, as well as the period during which post-credit-event events are taken into account in the loss valuation, in place.

(4) If transfer of the underlying obligation to the credit protection provider is required for the realisation of credit protection, the terms of the credit protection contract shall provide for entry into agreements required for prompt transfer.

(5) The identity of the parties responsible for determining whether a credit event has occurred shall be defined in the credit protection contract. The credit protection buyer shall have the right and ability to inform the protection provider of the occurrence of a credit event.

(6) A mismatch between the underlying obligation, whose terms determine the criteria of cash settlement or of occurrence of a credit event, and the obligation whose credit risk the credit institution wishes to mitigate by means of a credit derivative is permissible only if the following conditions are met:

- 1) the underlying obligation or the obligation used for the purpose of determining whether a credit event has occurred, as the case may be, ranks *pari passu* with or is junior to the protected obligation;
- 2) the underlying obligation or the obligation used for the purpose of determining whether a credit event has occurred and the obligation protected by the credit derivative share the same obligor (i.e. the same legal entity).

§ 125. Requirements specific to calculation of adjusted risk weights for guarantees and credit derivatives under the Foundation IRB Approach

To be eligible for the treatment set out in subsection 51 (1) of this Decree, guarantees or credit derivatives shall meet the following conditions:

- 1) the underlying obligation of credit protection is an exposure to a central bank, central government or regional government, local authority, administrative agency or non-commercial institution equalised with a central government, or to a company, including a small or medium-sized entity;
- 2) the underlying obligation of credit protection is not an exposure to an insurance or reinsurance company or to a member of the same group as the credit protection provider;
- 3) the instrument providing credit protection is a single-name guarantee or a single-name credit derivative, a first-to-default basket product or a n^{th} -to-default basket product;
- 4) the credit protection meets the requirements established in this Subdivision;

- 5) the risk weight that would be assigned to the exposure with credit protection prior to the adjustment does not already take into account the existence of the credit protection;
- 6) the credit institution shall have the right and legitimate expectation to receive payment from the credit protection provider without having to take legal action in order to pursue the counterparty for payment;
- 7) to the extent possible, the credit institution shall take steps to satisfy itself that the credit protection provider is able to pay promptly should credit quality deteriorate;
- 8) the purchased credit protection shall absorb all credit losses incurred on the hedged portion of an exposure that arise due to the occurrence of credit events outlined in the contract;
- 9) if the payout structure provides for settlement with the underlying obligation, there shall be legal certainty with respect to the deliverability of the underlying obligation;
- 10) if the credit institution intends to deliver an obligation other than the underlying exposure, the deliverable obligation shall be sufficiently liquid so the credit institution has the ability to purchase it for delivery;
- 11) the terms and conditions of credit protection arrangements shall be legally confirmed in writing by both the credit protection provider and the credit protection buyer;
- 12) credit institutions shall have a process in place to detect an excessive correlation between the creditworthiness of a protection provider and the obligor of the underlying exposure due to their performance being dependent on common factors beyond the systematic risk factor;
- 13) in the case of protection against dilution risk of purchased receivables, the seller of the purchased receivables shall not be a member of the same group as the protection provider.

Sub-subdivision 3 Calculating the effects of financial collateral

§ 127. Treatment of cash, repurchase transactions and securities or commodities borrowing and lending transactions

Cash, securities or commodities purchased, borrowed or received under a repurchase transaction or securities or commodities lending or borrowing transaction shall be treated as collateral.

§ 128. Treatment of credit linked notes

The cash funded portion of credit linked notes issued by the lending credit institution for the purpose of covering exposures in the non-trade portfolio may be treated as cash collateral.

§ 129. Treatment of on-balance sheet netting

Deposits with the lending credit institution subject to on-balance sheet netting shall be treated as cash collateral.

§ 130. Calculating the effects of credit risk mitigation for repurchase transactions, securities or commodities borrowing and lending transactions and other capital market-driven transactions

(1) In the case of repurchase transactions, securities or commodities borrowing or lending transactions and other capital market-driven transactions, the risk-weighted exposure amounts or expected loss amounts shall be calculated on the fully adjusted exposure value of each type of security or commodity calculated in accordance with section 131 or 134.

(2) For the purposes of this Subdivision, "type of security" means securities which are issued by the same entity, have the same issue date and are subject to the same terms and conditions.

§ 131. Calculating the fully adjusted exposure values for repurchase transactions, securities or commodities borrowing or lending transactions or other capital market-driven transactions, using supervisory volatility adjustments or own-estimates of volatility adjustments

(1) Credit institutions shall calculate the fully adjusted exposure values of repurchase transactions, securities or commodities borrowing or lending transactions or other capital market-driven transactions, using supervisory volatility

adjustments or own-estimates of volatility adjustments, according to the following formula:

$$E^* = \text{Max}\{0, [\sum(E) - \sum(C) + \sum(| \text{net position of each security} | * H_{sec}) + (\sum | E_{fx} | * H_{fx})]\}$$

where

E^* is the fully adjusted exposure value;

E is the exposure value, calculated in accordance with Subdivisions 1 and 2 of this Division, before the application of credit risk mitigation effects;

C is the value of the securities, commodities or cash borrowed, purchased or received in respect of each such exposure;

$\sum(E)$ is the sum of all E s under the agreement;

$\sum(C)$ is the sum of all C s under the agreement;

E_{fx} is the net position in a given currency other than the settlement currency of the agreement;

H_{sec} is the volatility adjustment appropriate to a particular type of security;

H_{fx} is the foreign exchange volatility adjustment.

(2) The net position in each "type of security" or commodity shall be calculated by subtracting from the total value of the securities or commodities of that type lent, sold or provided under the master netting agreement, the total value of securities or commodities of that type borrowed, purchased or received under the agreement.

(3) The net position in each currency related to the master netting agreement, other than the settlement currency of the master netting agreement, shall be calculated by subtracting from the total value of securities denominated in that currency lent, sold or provided under the master netting agreement added to the amount of cash in that currency lent or transferred under the agreement, the total value of securities denominated in that currency borrowed, purchased or received under the agreement added to the amount of cash in that currency borrowed or received under the agreement.

§ 132. Using internal models in the calculation of fully adjusted exposure values for repurchase transactions, securities or commodities borrowing or lending transactions and other capital market-driven transactions

(1) Subject to the prior written approval of the Financial Supervision Authority, a credit institution may use internal models in calculating fully adjusted exposure values for repurchase transactions, securities or commodities lending or borrowing transactions and other capital market-driven transactions other than derivative transactions, which take into account correlation effects between security positions subject to the master netting agreement as well as the liquidity of the instruments concerned. The internal models used shall provide estimates of the potential change in value of the unsecured exposure amount.

(2) Subject to the prior written approval of the Financial Supervision Authority, a credit institution may also use internal models in calculating fully adjusted exposure values for margin lending transactions, provided that the transactions are covered by a bilateral master netting agreement that meets the requirements set out in section 242.

(3) Where a credit institution has been permitted to use internal models for the calculation of fully adjusted exposure values for repurchase transactions, securities or commodities lending or borrowing transactions or other capital market-driven transactions, it shall use internal models for all counterparties and securities, excluding immaterial portfolios where it may employ the methods set out in section 140 or 144.

(4) Where the Financial Supervision Authority has authorised a credit institution to use the internal model specified in section 306, the credit institution may use that internal model for the calculation of fully adjusted exposure values for repurchase transactions, securities or commodities lending or borrowing transactions or other capital market-driven transactions with the approval of the Financial Supervision Authority.

(5) The Financial Supervision Authority shall make a decision regarding the grant of or refusal to grant the approval set out in subsection (1) of this section within one month after the receipt of all the required documents and information, but not later than within three months after the receipt of the application.

§ 133. Requirements specific to using internal models in the calculation of fully adjusted exposure values for repurchase transactions, securities or commodities borrowing or lending transactions or other capital market-driven transactions

(1) A credit institution shall demonstrate that its risk-management system for managing the risks arising on the transactions covered by master netting agreements is efficient and that it meets the following requirements:

- 1) the internal model used for calculation of potential price volatility for the transactions is closely integrated into the daily risk-management process of the credit institution and serves as the basis for reporting risk exposures to the senior management of the credit institution;
- 2) the credit institution has a risk control unit that is independent from business trading units, is responsible for designing and implementing the credit institution's risk-management system and reports directly to the senior management;
- 3) the daily reports produced by the risk-control unit are reviewed by a level of management with sufficient authority to enforce reductions of positions taken;
- 4) the credit institution has sufficient staff with knowledge and skills required for using internal models;
- 5) the credit institution has established procedures for monitoring and ensuring compliance with a documented set of principles concerning the overall operation of the risk-measurement system;
- 6) the credit institution's models have a proven track record of reasonable accuracy in measuring risks demonstrated through the back-testing of its output using at least one year of data;
- 7) the credit institution conducts stress tests by means of the risk-measurement system and the results of these tests are reviewed by the senior management and reflected in the policies and limits it sets;
- 8) the credit institution conducts, as part of its internal auditing process, regular reviews of its risk-measurement system which include both the activities of the business trading units and of the independent risk-control unit;
- 9) the credit institution conducts a review of its risk-management system at least once a year;
- 10) the internal model shall meet the requirements set out in Sub-subdivision 7 of Subdivision 6 of this Division.

(2) The calculation of the potential change in value of the unsecured exposure amount shall be subject to the following minimum requirements:

- 1) the potential change in value shall be calculated on a daily basis;
- 2) a 99th percentile, one-tailed confidence interval shall be used;
- 3) a 5-day liquidation period shall be presumed, except in the case of securities repurchase transactions or securities lending or borrowing transactions where a 10-day liquidation period shall be presumed;
- 4) an effective historical observation period of at least one year shall be used in testing the reliability of the model, except where a shorter observation period is justified by a significant upsurge in price volatility;
- 5) data sets shall be updated every three months.

(3) The internal model shall capture a sufficient number of risk factors in order to reflect all material risks causing changes in exposure values. Empirical correlations within risk categories and across risk categories may be taken into account in the internal model, provided that the credit institution's system for measuring correlations is reliable and covers all material risks causing changes in values.

§ 134. Calculating fully adjusted exposure values for repurchase transactions, securities or commodities borrowing or lending transactions or other capital market-driven transactions, using internal models

(1) Credit institutions shall calculate the fully adjusted exposure values of repurchase transactions, securities or commodities borrowing or lending transactions and other capital market-driven transactions, using internal models, according to the following formula:

$$E^* = \text{Max}\{0, [(\sum(E) - \sum(C)) + (\text{model output})]\} ,$$

where

E^* is the fully adjusted exposure value;

E is the exposure value, calculated in accordance with Subdivisions 1 and 2 of this Division, before the application of credit risk mitigation effects;

C is the value of the securities, commodities or cash borrowed, purchased or received in respect of each such exposure;

$\sum(E)$ is the sum of all E s under the agreement;

$\sum(C)$ is the sum of all C s under the agreement;

E_{fx} is the net position in a given currency other than the settlement currency of the agreement;

H_{sec} is the volatility adjustment appropriate to a particular type of security;

H_{fx} is the foreign exchange volatility adjustment.

(2) In using the formula set out in subsection (1) of this section, credit institutions shall use the previous business day's model output.

§ 135. Financial Collateral Simple Method

(1) The Financial Collateral Simple Method may be used only where risk-weighted exposure amounts are calculated under the Standardised Approach to credit risk. A credit institution shall not use simultaneously both the Financial Collateral Simple Method and the Financial Collateral Comprehensive Method.

(2) Under the Financial Collateral Simple Method, recognised financial collateral is assigned a value equal to its market value.

§ 136. Using the Financial Collateral Simple Method in calculating risk-weighted exposure amounts

(1) Where a credit institution employs the Financial Collateral Simple Method to calculate the effects of financial collateral, the risk weight of the financial collateral shall be assigned to the part of the exposure collateralised by the market value of the collateral in calculating risk-weighted exposure amounts, and the remainder of the exposure shall be assigned the risk weight of the relevant exposure.

(2) Under the Financial Collateral Simple Method, the risk weight assigned to the collateralised portion of an exposure shall be a minimum of 20%, except in the cases specified in subsections (3)-(5) of this section.

(3) A risk weight of 0% shall be assigned to the collateralised portion of the exposure arising from repurchase transactions, securities or commodities borrowing or lending transactions which fulfil the criteria established in section 148. If the counterparty to the transaction is not a core market participant a risk weight of 10% shall be assigned.

(4) A risk weight of 0% shall, to the extent of the collateralisation, be assigned to the OTC derivatives which are subject to daily marking-to-market and which are collateralised by cash or cash-assimilated instruments where there is no currency mismatch. A risk weight of 10% shall be assigned to the extent of the collateralisation to the OTC derivatives which are subject to daily marking-to-market and which are collateralised by securities issued by central governments, central banks or public sector entities which are assigned a 0% risk weight under subsections 26 (3) and (4).

(5) A risk weight of 10% shall be assigned to the extent of the collateralisation to other transactions where the exposure and the collateral are denominated in the same currency and where the collateral is cash or a cash-assimilated instrument or securities issued by central governments, central banks or public sector entities which are assigned a 0% risk weight under subsections 26 (3) and (4).

§ 137. Financial Collateral Comprehensive Method

(1) Where the effects of financial collateral are calculated pursuant to the Financial Collateral Comprehensive Method, the risk-weighted exposure amounts or expected loss amounts shall be calculated on the fully adjusted exposure which is equal to the difference between the exposure value increased by the volatility adjustment and the collateral value reduced by the volatility adjustment.

(2) Under the Financial Collateral Comprehensive Method, recognised financial collateral is assigned a value equal to its market value.

(3) Where financial collateral is denominated in a currency that differs from that in which the underlying exposure is denominated, an adjustment reflecting currency volatility shall be added to the volatility adjustment applied to the collateral.

(4) In the case of OTC derivatives covered by master netting agreements recognised by the Financial Supervision Authority under Sub-subdivision 8 of Subdivision 6 of this Division, a volatility adjustment reflecting currency volatility shall be applied when there is a mismatch between the collateral currency and the settlement currency. Even in the case where more than two currencies are involved in the transactions covered by the netting agreement, only a single volatility adjustment shall be applied.

§ 138. Calculating fully adjusted exposure values under the Financial Collateral Comprehensive Method

(1) Under the Financial Collateral Comprehensive Method, the fully adjusted value of an exposure, taking into account the risk-mitigating effects of collateral, is calculated according to the following formula, except in the cases specified in sections 131 and 132:

$$E^* = \text{Max}\{0, [E_{VA} - C_{VAM}]\}$$

where

E^* is the fully adjusted exposure value;

C_{VA} is the volatility-adjusted value of the collateral;

C_{VAM} is C_{VA} further adjusted for any maturity mismatch;

E_{VA} is the volatility-adjusted exposure amount;

H_E is the volatility adjustment appropriate to the exposure;

H_C is the volatility adjustment appropriate to the collateral;

H_{FX} is the volatility adjustment appropriate to the currency mismatch.

(2) The volatility-adjusted value of the collateral shall be calculated according to the following formula:

$$C_{VA} = C * (1 - H_C - H_{FX})$$

§ 139. General requirements for using volatility adjustments

(1) To adjust exposure and collateral values with volatility, credit institutions may use either supervisory volatility adjustments or own estimates of volatility adjustments.

(2) To use own estimates of volatility adjustments, a credit institution shall first apply for the written approval of the Financial Supervision Authority. To be granted the approval, a credit institution shall demonstrate that the requirements established in 144-146 are met.

(3) Where a credit institution has been authorised to use its own estimates of volatility adjustments, the credit institution shall use its own estimates of volatility adjustments for all exposures and collateral to be adjusted, excluding immaterial portfolios for which the credit institution may use supervisory volatility adjustments.

(4) Where an exposure is simultaneously secured by several recognised collaterals, the volatility adjustment for the pool of collaterals shall be calculated according to the following formula:

 ,

where

a_i is the proportion of a collateral in the pool of collaterals;

H_i is the volatility adjustment applicable to that collateral.

§ 140. Using supervisory volatility adjustments

- (1) Where a credit institution reevaluates adjustable instruments on a daily basis, the supervisory adjustments set out in sections 141 and 142 shall be used.
- (2) If the frequency of revaluation of adjustable instruments is less than daily, the credit institution shall use the supervisory adjustments set out in sections 141 and 142 and apply the treatment established in section 147 to them.
- (3) the application of supervisory volatility adjustments, the periods of liquidation of collateral shall be determined as follows:
- 1) 20 business days for margin lending transactions;
 - 2) 5 business days for repurchase transactions and securities borrowing or lending transactions;
 - 3) 10 business days for other capital market-driven transactions.
- (4) For securities or commodities not mentioned in sections 111 and 112 sold or borrowed under repurchase transactions or securities or commodities lending or borrowing transactions, the volatility adjustment is the same as for the other equities and convertible bonds as specified in section 142.
- (5) For eligible shares and units of CIUs specified in sections 111 and 112 of this Decree, the volatility adjustment is the weighted average volatility adjustments that would apply, having regard to the liquidation period of the transaction as specified in subsection (2) of this section, to the assets in which the fund has invested. If the structure of investments of a CIU is not known to the credit institution, the volatility adjustment shall be the highest volatility adjustment that would apply to any of the assets in which the CIU has the right to invest.
- (6) For securities specified in subsection 111 (2) of this Decree, the volatility adjustments shall be the same as for debt instruments issued by credit institutions or investment firms with an external credit assessment corresponding to credit quality steps 2 or 3.

§ 141. Supervisory volatility adjustments applicable to debt securities issued by central governments, central banks, credit institutions, investment firms or companies

- (1) Supervisory volatility adjustments applicable to debt securities specified in section 111 of this Decree are set out in the following table (expressed in percentages):

Credit quality step corresponding to credit assessment	Residual maturity	Debt securities issued by central governments and central banks			Debt securities issued by credit institutions, investment firms or companies		
		Liquidation period			Liquidation period		
		20 business days	10 business days	5 business days	20 business days	10 business days	5 business days
1	≤ 1 year	0.707	0.5	0.354	1.414	1	0.707
	> 1 ≤ 5 years	2.828	2	1.414	5.657	4	2.828
	> 5 years	5.657	4	2.828	11.314	8	5.657
2-3	≤ 1 year	1.414	1	0.707	2.828	2	1.414
	> 1 ≤ 5 years	4.243	3	2.121	8.485	6	4.243
	> 5 years	8.485	6	4.243	16.971	12	8.485
	≤ 1 year	21.213	15	10.607			
	> 1 ≤ 5 years	21.213	15	10.607			

4	> 5 years	21.213	15	10.607	N/A
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(2) Supervisory volatility adjustments applicable to debt securities specified in section 111 of this Decree for which a specific credit assessment of short-term obligations is available are set out in the following table (expressed in percentages):

Credit quality step corresponding to credit assessment of a short-term obligation	Debt securities issued by central governments and central banks with short-term credit assessments			Debt securities issued by credit institutions, investment firms or companies with short-term credit assessments		
	Liquidation period			Liquidation period		
	20 business days	10 business days	5 business days	20 business days	10 business days	5 business days
1	0.707	0,5	0.354	1.414	1	0.707
2-3	1.414	1	0.707	2.828	2	1.414

§ 142. Supervisory volatility adjustments applicable to other financial collateral

Supervisory volatility adjustments applicable to debt securities specified in section 112 of this Decree are set out in the following table (expressed in percentages):

Other collateral or exposures	Liquidation period		
	20 business days	10 business days	5 business days
Main Index Equities, Main Index Convertible Bonds	21.213	15	10.607
Other Equities or Convertible Bonds listed on a recognised exchange	35.355	25	17.678
Cash	0	0	0
Gold	21.213	15	10.607

§ 143. Supervisory volatility adjustments applicable in the case of currency mismatches

Volatility adjustments applicable in the case of currency mismatches of collaterals specified in sections 111 and 112 shall be the following:

- 1) 11.314% in the case of a liquidation period of 20 business days;
- 2) 8% in the case of a liquidation period of 10 business days;
- 3) 5.657% in the case of a liquidation period of 5 business days.

§ 144. Using own estimates of volatility adjustments

(1) When debt securities have a credit assessment from an eligible ECAI equivalent to investment grade or better, a volatility estimate may be calculated for each category of security.

(2) Categories of securities shall be determined on the basis of the type of issuer of the security, the ECAI that has provided the external credit assessment of the securities, the residual maturity of the securities, and their modified duration. Volatility estimates must be representative of the securities included in the category by the credit institution.

(3) For debt securities having a credit assessment from an eligible ECAI equivalent to below investment grade the volatility adjustments must be calculated for each individual item.

(4) Credit institutions using the own-estimates approach shall estimate volatility of the collateral or foreign exchange mismatch without taking into account any correlations between the unsecured exposure, collateral and/or exchange rates.

§ 145. Quantitative requirements for using own estimates of volatility adjustments

(1) Instruments adjusted with the credit institution's own estimates of volatility adjustments shall be revaluated on a daily basis, except if the credit institution applies the treatment set out in section 147.

(2) In calculating the volatility adjustments, a 99th percentile one-tailed confidence interval shall be used.

(3) In the application of the credit institution's own estimates of volatility adjustments, the periods of liquidation of collateral shall be determined as follows:

- 1) 20 business days for secured lending transactions;
- 2) 5 business days for repurchase transactions and securities borrowing or lending transactions;
- 3) 10 business days for other capital market-driven transactions.

(4) Credit institutions may use volatility adjustment numbers calculated according to shorter or longer liquidation periods than these set out in subsection (3) of this section. In such a case, the volatility adjustment calculated on the basis of the liquidation period used by the credit institution shall be scaled up or down to the liquidation period set out in subsection (3) of this section, using the following formula:



where

H_M is the volatility adjustment calculated on the basis of the liquidation period used by the credit institution;

T_N is the liquidation period used by the credit institution for calculation of the volatility adjustment H_N ;

H_N is the volatility adjustment corresponding to the liquidation period T_N ;

T_M is the liquidation period established in subsection (3) of this section for the transaction in question.

(5) When calculating its estimates of volatility adjustments, a credit institution shall take into account the illiquidity of lower-quality assets. The liquidation period shall be adjusted upwards in cases where there is doubt concerning the liquidity of the collateral. A credit institution shall also identify where historical data may understate potential volatility and conduct relevant stress tests.

(6) The historical observation period for calculating volatility adjustments shall be a minimum length of one year. For credit institutions that use a weighting scheme or other adjustment methods for the historical observation period, the effective observation period shall be at least one year, that is, the weighted average time lag of the individual observations shall not be more than 6 months.

(7) The Financial Supervision Authority may also require a credit institution to calculate its volatility adjustments using a shorter observation period than that specified in subsection (5) of this section if this is justified by a significant upsurge in price volatility.

(8) Credit institutions shall update their data sets and reassess their volatility adjustments at least once every three months. In the case of material changes in market prices, credit institutions shall reassess their volatility adjustments more frequently.

§ 146. Qualitative requirements for using own estimates of volatility adjustments

(1) When using own estimates of volatility adjustments, credit institutions shall comply with the following requirements:

- 1) the volatility estimates shall be used in the day-to-day risk management process of the credit institution including in relation to its internal exposure limits;
- 2) if the collateral liquidation period used by the credit institution in its day-to-day risk management process is longer than that set out in subsection 145 (3) for the type of transaction in question, the treatment specified in subsection 145 (4) shall be applied in the calculation of volatility adjustments;
- 3) the credit institution shall have documented systems and procedures for the internal estimation of volatility adjustments and for the integration of such estimations into its risk management process.

(2) An independent review of using internal estimates of volatility adjustments shall be carried out regularly in the credit institution's own internal auditing process. A review of the overall system for the estimation of volatility adjustments and for integration of those adjustments into the credit institution's risk management process shall take place at least once a year and shall specifically address, among other things:

- 1) the use of estimated volatility adjustments in daily risk management;
- 2) the validation of any changes in the estimates of volatility adjustments;
- 3) the verification of the consistency, timeliness, reliability and independence of data sources used to run the system for the estimation of volatility adjustments;
- 4) the accuracy and appropriateness of the volatility assumptions.

§ 147. Adjustment of volatility adjustments where exposures and collaterals are revaluated less frequently than on a daily basis

Where a credit institution revaluates instruments subject to adjustment with volatility less frequently than on a daily basis, the supervisory volatility adjustments or internal estimates of volatility adjustments shall be scaled up according to the following formula:



where

H is the volatility adjustment to be applied to the position to be adjusted;

H_M is the volatility adjustment where there is daily revaluation;

N_R is the actual number of business days between revaluations;

T_M is the liquidation period for the type of transaction in question.

§ 148. Exceptions of using volatility adjustments in the case of repurchase transactions and securities borrowing or lending transactions

(1) Where a credit institution uses the supervisory volatility adjustments approach or the own-estimates approach it may apply a 0% volatility adjustment to repurchase transactions and securities lending or borrowing transactions that meet the following conditions:

- 1) both the exposure and the collateral are cash or debt securities specified in section 111 eligible for a 0% risk weight under Subdivision 1 of this Division;
- 2) both the exposure and the collateral are denominated in the same currency;
- 3) the exposure and the collateral are listed on an exchange, are subject to daily valuation to fair value or the maturity of the transaction is no more than one day;
- 4) it is considered that the time between the last valuation to fair value before a failure to remargin by the counterparty and the liquidation of the collateral shall be no more than four business days;
- 5) the transaction is settled across a settlement system proven for that type of transaction;
- 6) the documentation covering the transaction is standard market documentation for repurchase transactions or securities lending or borrowing transactions in the securities concerned;

- 7) the transaction is governed by documentation specifying that if the counterparty fails to satisfy an obligation to deliver cash or securities or otherwise defaults, then the transaction is immediately terminable;
- 8) the counterparty is a core market participant as specified in subsection (2) of this section.

(2) Core market participants include:

- 1) the entities set out in clauses 111 (1) 2) and 3) of this Decree which are assigned a 0% risk weight under Subdivision 1 of this Division;
- 2) the central government of a Member State, if the competent authority of that Member State treats the central government as a core market participant;
- 3) credit institutions and investment firms;
- 4) other financial companies and insurance companies that have a credit assessment by an eligible ECAI which has been determined to be corresponding to credit quality step 2 or above under the procedure established in Sub-Subdivision 2 of Subdivision 2 of this Division;
- 5) other financial companies and insurance companies which, in the case of credit institutions calculating risk-weighted exposure amounts and expected loss amounts under the Internal Ratings Based Approach, do not have a credit assessment by an eligible ECAI and are internally rated as having a PD equivalent to that associated with the credit assessments of ECAIs determined by the Financial Supervision Authority to be corresponding to credit quality step 2 or above;
- 6) regulated CIUs that are subject to capital requirements, a minimum size of owners' equity or investment limitations;
- 7) regulated pension funds;
- 8) recognised clearing organisations.

§ 149. Calculation of risk-weighted exposure amounts and expected loss amounts under the Financial Collateral Comprehensive Method

(1) Where a credit institution employs the Standardised Approach to credit risk, risk-weighted exposure amounts shall be calculated on the basis of fully adjusted exposure values calculated in accordance with section 138, pursuant to the procedure established in Subdivision 1 of this Division.

(2) Where a credit institution employs the Foundation IRB Approach to credit risk, risk-weighted exposure amounts and expected loss amounts shall be calculated pursuant to the procedure established in Subdivision 2 of this Division, using the effective LGD. The effective LGD shall be calculated according to the following formula:



where

LGD^* is the effective LGD;

LGD is the LGD calculated in accordance with subsection 43 (2);

E^* is the fully adjusted exposure value calculated in accordance with section 138;

E is the exposure value calculated in accordance with Subdivision 2 of this Division.

Sub-subdivision 4 Calculating the effects of other collaterals

§ 150. Valuation of mortgages in the calculation of risk-weighted exposure amounts and expected loss amounts

(1) In the calculation of risk-weighted exposure amounts and expected loss amounts, a mortgage shall be recognised at the market value as determined by an independent expert, reduced as appropriate to reflect the results of the monitoring required under clause 114 (5) 4) and to take account of any prior claims on the property.

(2) For the purposes of this Decree, "market value" means the estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion. The market

value shall be documented in a transparent and clear manner.

§ 151. Valuation of pledged receivables in the calculation of risk-weighted exposure amounts and expected loss amounts

In the calculation of risk-weighted exposure amounts and expected loss amounts, pledged receivables shall be recognised at the value of the amount receivable.

§ 152. Calculation of risk-weighted exposure amounts and expected loss amounts in the case of exposures secured by a mortgage or by receivables

(1) Effective LGDs to be applied to exposures secured by a mortgage shall be determined as follows:

- 1) where the mortgage value accounts for less than 30% of the exposure value, the LGD applicable to uncollateralised exposures as specified in Sub-subdivision 4 of Subdivision 2 of this Division shall be the effective LGD;
- 2) where the mortgage value accounts for 140% of the exposure value or more, an LGD of 35% shall be applied to exposures arising from non-subordinated or contingent claims and an LGD of 65% shall be applied to exposures arising from subordinated or contingent claims;
- 3) where the mortgage value accounts for 30-139% of the exposure value, only the part of the exposure collateralised with the mortgage to the extent established in clause 2) of this subsection of this section shall be deemed secured and shall be assigned the LGD specified in that clause.

(2) Effective LGDs to be applied to exposures secured by receivables shall be determined as follows:

- 1) where the amount receivable on account of pledged receivables accounts for 125% of the exposure value or more, an LGD of 35% shall be applied to exposures arising from non-subordinated or contingent claims and an LGD of 65% shall be applied to exposures arising from subordinated or contingent claims;
- 2) where the amount receivable on account of pledged receivables accounts for less than 125% of the exposure value, only the part of the exposure collateralised with the receivables to the extent established in this clause shall be deemed secured and shall be assigned the LGD specified in this clause;
- 3) where a Member State applies an effective LGD to exposures collateralised by receivables which is lower than that specified in clause 1) of this section, relying on the Community law, the effective LGD applicable to exposures collateralised by mortgages in that Member State shall be the LGD applied in that Member State subject to the same conditions as established in that Member State.

§ 153. Treatment of the effects of other funded credit protection

(1) In the calculation of risk-weighted exposure amounts or expected loss amounts, cash on deposit with, or cash assimilated instruments held by, a third party credit institution may be treated as a guarantee by the third party credit institution and its effects shall be calculated in accordance with section 154.

(2) In the calculation of risk-weighted exposure amounts or expected loss amounts, life insurance policies may be treated as a guarantee by the company providing the life insurance and its effects shall be calculated in accordance with section 154. The value of the guarantee shall be the surrender value of the life insurance policy.

(3) In the calculation of risk-weighted exposure amounts or expected loss amounts, instruments repurchased on request, issued by credit institutions or investment firms, shall be treated as a guarantee by the issuing credit institution or investment firm and its effects shall be calculated in accordance with section 154. The value of the guarantee shall be the following:

- 1) where the issuer is obliged to repurchase the instrument at its face value, the value of the protection shall be that amount;
- 2) where the issuer is obliged to repurchase the instrument at its market price, the value of the protection shall be that amount.

Sub-subdivision 5
Calculating the effects of unfunded credit protection

§ 154. Calculating the value of unfunded credit protection

- (1) The value of unfunded credit protection shall be the amount that the protection provider has undertaken to pay in the event of the default or non-payment of the borrower or on the occurrence of other specified credit events.
- (2) Where the value of credit protection is lower than the value of the exposure for which protection is provided, then, for the purpose of calculating risk-weighted exposure amounts or expected loss amounts, the value of the credit protection specified in subsection (1) of this section shall be reduced by 40%.
- (3) Where the value of credit protection is higher than the value of the exposure for which protection is provided, the value of the credit protection to be recognised shall be no higher than 60% of the exposure value.
- (4) Where unfunded credit protection is denominated in a currency different from that in which the exposure is denominated (a currency mismatch) the value of the credit protection shall be calculated according to the following formula:



where

G is the nominal amount of the credit protection;

G^* is the value of the credit protection adjusted for any currency mismatch;

H_{FX} is the volatility adjustment appropriate to the currency mismatch.

- (5) For the purpose of calculating the unfunded credit protection with a currency mismatch as established in subsection (4) of this section, the volatility adjustments for the currency mismatch may be calculated based on the supervisory volatility adjustments approach or the own-estimates approach as set out in this Subdivision.

§ 155. Calculating risk-weighted exposure amounts for exposures with unfunded credit protection in the case of securitisation

Where a credit institution transfers a part of the risk of a loan in one or more tranches, the treatment set out in Subdivision 4 of this Division shall apply. Materiality thresholds on payments below which no payment shall be made in the event of loss are considered to be equivalent to retained first loss positions.

§ 156. Calculating risk-weighted exposure amounts for exposures with unfunded credit protection under the Standardised Approach to credit risk

- (1) Under the Standardised Approach to credit risk, where an exposure is fully protected, the risk-weighted exposure amount shall be calculated on the value of the unfunded credit protection adjusted for any currency mismatch as specified in section 143 and for any maturity mismatch as specified in section 160, in accordance with the following formula:



where

RWA is the risk-weighted exposure;

G_A is the exposure value adjusted for any currency mismatch and any maturity mismatch;

g is the risk weight applicable to the credit protection provider.

- (2) Where the value of the credit protection is lower than the exposure value and the exposure and its protection are of equal seniority, i.e. the credit institution and the protection provider share losses on a pro rata basis, the adjusted

exposure value shall be calculated according to the following formula:



where

E is the exposure value;

G_A is the unfunded credit protection adjusted for any currency mismatch and any maturity mismatch;

r is the risk weight of exposures to the obligor;

g is the risk weight applicable to the credit protection provider.

(3) The treatment provided for in clause 26 (1) 5) shall be applied to exposures or parts of exposures guaranteed by central governments or central banks, where the guarantee is denominated in the domestic currency of the borrower and the exposure is funded in that currency.

§ 157. Calculating risk-weighted exposure amounts for exposures with unfunded credit protection under the Foundation IRB Approach

(1) Under the Foundation IRB Approach, the PD assigned to the credit protection provider shall be applied to exposures or parts of exposures with credit protection. Where full protection is not warranted, a PD between that of the borrower and that of the protection provider shall be applied.

(2) Where a subordinated exposure is fully or partially protected by non-subordinated unfunded credit protection, the LGD of the non-subordinated exposure shall be applied to the covered portion of the exposure.

(3) The covered portion of an exposure shall be determined on the basis of the unfunded credit protection value, adjusted for any currency mismatch and any maturity mismatch.

(4) To any uncovered portion of an exposure the PD of the borrower and the LGD of the underlying exposure shall be applied.

Sub-subdivision 6 Maturity mismatches

§ 158. Maturity mismatch

(1) For the purposes of calculating risk-weighted exposure amounts, a maturity mismatch occurs when the residual maturity of the credit protection is less than that of the protected exposure.

(2) In the case of a maturity mismatch, credit protection of less than three months residual maturity shall not be recognised, if the original maturity of the protection is less than one year or if the minimum residual maturity of the protection must be one day under subsection 73 (3).

§ 159. Definition of maturity

(1) The effective maturity of an exposure shall be the longest possible remaining time before the obligor is scheduled to fulfil its obligations to the credit institution. Where such a period of time is longer than five years, the maturity shall be deemed to be equal to five years.

(2) The maturity of the credit protection shall be the time to the earliest date at which the protection may terminate or be terminated, subject to subsection (3) of this section.

(3) Where there is an option to terminate the protection which is at the discretion of the protection provider, the maturity of the protection shall be taken to be the time to the earliest date at which that option may be exercised.

(4) Where the protection buyer has an option and a probable intention to terminate the credit protection before

contractual maturity, the maturity of the protection shall be taken to be the time to the earliest date at which the protection buyer may exercise that option. Where there is no such an intention, the maturity of the protection shall be taken to be the contractual maturity.

(5) Where a credit derivative agreement can be terminated prior to expiration of any grace period required for a default on the underlying obligation to occur as a result of a failure to pay, the maturity of the protection shall be reduced by the amount of the grace period.

§ 160. Valuation of the effects of financial collateral in the case of maturity mismatch

(1) Where a credit institution employs the Financial Collateral Comprehensive Method, the collateral value adjusted for a maturity mismatch shall be calculated according to the following formula:



where

C_{VAM} is the value of financial collateral, adjusted for maturity mismatch;

C_{VA} is the value of the collateral, adjusted for currency mismatch, or the amount of the exposure, whichever is the lowest;

t is the number of years remaining to the maturity date of the credit protection calculated in accordance with section 159, or the value of T , whichever is the lower;

T is the number of years remaining to the maturity date of the exposure calculated in accordance with section 159, or 5 years, whichever is the lower;

t^* is 0.25.

(2) The value of financial collateral adjusted for any maturity mismatch shall be used in the formula for the calculation of the fully adjusted values of exposures set out in subsection 138(1).

(3) Under the Financial Collateral Simple Method, where there is a mismatch between the maturity of the exposure and the maturity of the credit protection, the protection shall not be recognised.

§ 161. Valuation of the effects of unfunded credit protection in the case of maturity mismatch

In the case of unfunded credit protection, the value of credit protection adjusted for any maturity mismatch shall be calculated according to the following formula:



where

G^* is the amount of unfunded credit protection adjusted for any currency mismatch;

G_A is G^* adjusted for any maturity mismatch;

t is the number of years remaining to the maturity date of the credit protection calculated in accordance with section 159, or the value of T , whichever is the lower;

T is the number of years remaining to the maturity date of the exposure calculated in accordance with section 159, or 5 years, whichever is the lower;

t^* is 0.25.

Sub-subdivision 7 Special cases of recognition of credit protection

§ 162. Calculation of the value of credit protection under the Standardised Approach in the case of a combination of collaterals

(1) In the case where a credit institution calculating risk-weighted exposure amounts under the Foundation IRB

Approach has more than one form of credit risk mitigation covering a single exposure or where a single protection provider has differing maturities, the credit institution shall subdivide the exposure into parts covered by each type of credit risk mitigation tool and the risk-weighted exposure amount for each part shall be calculated separately.

(2) Where an exposure has more than one form of funded credit protection, the volatility-adjusted exposure value shall be subdivided into parts and each such part shall be deemed to be covered by one collateral.

(3) An LGD shall be assigned to each part of the collateral in accordance with the value and type of the collateral.

§ 163. Calculation of risk-weighted exposure amounts and expected loss amounts under the Foundation IRB Approach in the case of a combination of collaterals

(1) Where an exposure treated under the Foundation IRB Approach is simultaneously collateralised by a financial collateral and a mortgage or receivables, the exposure, increased by a volatility adjustment as appropriate, shall be subdivided into parts and each such part shall be deemed to be covered by one type of collateral.

(2) An effective LGD shall be assigned to each part of the collateral in accordance with the value and type of the collateral.

§ 164. Credit derivatives covering several exposures

(1) Where a credit derivative covers a number of exposures with credit protection under terms that the first default among the exposures shall trigger the payment obligation of the credit protection provider and that this credit event shall terminate the credit derivative contract, the credit institution may modify the calculation of the risk-weighted exposure amount and, as relevant, the expected loss amount of the exposure which would, in the absence of the credit protection, produce the lowest risk-weighted exposure amount. That treatment shall only be applied if the exposure value is less than or equal to the value of the credit protection.

(2) Where the n^{th} default among the exposures covered by credit protection triggers the payment obligation of the credit protection provider under the credit derivative terms, the credit institution purchasing the protection may only recognise the protection if protection has also been obtained for defaults 1 to $n-1$ or when $n-1$ defaults have already occurred.

Subdivision 4 Securitisation

Sub-subdivision 1

General provisions on the calculation of risk-weighted exposure amounts for securitised exposures

§ 165. Application of this Subdivision

(1) This Subdivision shall be applied to the calculation of risk-weighted exposure amounts for securitised transactions meeting the requirements established in sections 167 and 168.

(2) A credit institution shall not apply the provisions of this Subdivision to any exposure securitised by it, if it has covered losses or potential losses of the holders of the securitisation positions outside the obligations provided for in the securitisation contract. Said prohibition shall apply for three financial years after the provision of assistance to the holders of securitised exposures outside the securitisation contracts.

(3) A credit institution shall disclose information on the provision of assistance to holders of securitised exposures outside contractual obligations and the impact of such assistance on the credit institution's capital requirement.

(4) The provisions of Subdivisions 1 and 2 of this Division shall be applied to securitisation transactions that do not meet the requirements established in sections 167 and 168 and to the prohibition set out in subsection (2) of this section.

§ 166. Definitions relating to securitisation

For the purposes of this Subdivision, the following definitions shall apply:

- (1) "excess spread" means the amount by which finance charges and other fees received in respect of a securitisation transaction exceed the costs and expenses relating to the transaction;
- (2) "securitisation tranche" means a segment of exposures related to a securitisation transaction, where the credit quality of each exposure is equal, without taking account of credit protection provided by third parties directly to a position in the segment;
- (3) "asset-backed commercial paper (ABCP) programme" means a programme of securitisations the securities issued by which take the form of asset-backed commercial papers with an original maturity of one year or less;
- (4) "traditional securitisation" means a securitisation transaction involving the transfer of the risk and gains relating to exposures being securitised to a securitisation special purpose entity which issues securities, either by assignment of the exposures or through sub-participation, with the securities issued not representing payment obligations of the originator credit institution;
- (5) "synthetic securitisation" means a securitisation transaction where the risk and gains relating to exposures being securitised are transferred by using either credit derivatives or guarantees, and the pool of exposures is not removed from the balance sheet of the originator credit institution;
- (6) "sub-participation" is a method of securitisation where a securitisation special purpose entity (SSPE) and the originator of an exposure enter into a contract under which the SSPE participates in funding the exposure of the originator according to a pre-determined proportion, and bears all risks related to that exposure according to the same proportion;
- (7) "securitisation special purpose entity (SSPE)" means a legal person organised for carrying on a securitisation or securitisations, whose task is to isolate securitised exposures from the assets of the originator credit institution. The activities of a SSPE are limited to those appropriate to accomplishing that objective and the holders of the beneficial interests in a SSPE have the right to pledge or exchange those interests without restriction;
- (8) "originator" means either a legal entity that, either itself or through related entities, directly or indirectly, was involved in the original agreement which gave rise to the exposure to a third party which was securitised later, or an entity which purchased a third party's exposure and then securitised it;
- (9) "sponsor" means a credit institution other than an originator credit institution which establishes and manages a commercial paper programme or other securitisation scheme under which exposures are purchased from third party entities;
- (10) "early amortisation provision" means a contractual clause which provides for the right of investors to require, on the occurrence of defined events, that their positions be redeemed before the originally stated maturity;
- (11) "clean-up call option" means a contractual option for the originator to repurchase or extinguish the securitisation positions before all of the underlying exposures have been repaid, when the amount of outstanding exposures falls below a specified level;
- (12) "liquidity facility" means the securitisation position arising from a contractual agreement to provide funding to ensure timeliness of cash flow to investors.

§ 167. Treatment of traditional securitisations in the calculation of capital requirements for credit risk

- (1) Exposures securitised in a traditional securitisation shall be excluded from the calculation of risk-weighted exposure amounts and expected loss amounts, if the credit institution is the originator of the securitisation, where

credit risk associated with the securitised exposures has been fully transferred to third parties and if the securitisation complies with the requirements established in subsection (2)-(4) of this section.

(2) A traditional securitisation shall meet the following requirements:

- 1) The securitisation documentation reflects the economic substance of the transaction.
- 2) The securities issued as a result of the securitisation do not represent payment obligations of the originator credit institution.
- 3) The securitised exposures have been transferred to the SSPE.
- 4) No claims against the credit institution can be satisfied out of the securitised exposures, and the securitised exposures do not belong in the bankruptcy estate of the credit institution, which shall be confirmed by the opinion of a qualified expert.
- 5) The originator credit institution does not maintain effective or indirect control over the transferred exposures, i.e. the credit institution is not entitled to receive any gains associated with the transferred exposures or obliged to compensate for any losses to third parties that are associated with the transferred exposures.

(3) Where the terms and conditions of securitisation provide for a clean-up call option, the following conditions shall also be satisfied:

- 1) The clean-up call option is exercisable at the discretion of the originator credit institution.
- 2) The clean-up call option may only be exercised when at least 90% of the original value of the exposures securitised has been amortised at the expense of the holders of positions received or securitised.
- 3) The clean-up call option cannot be used to avoid or compensate losses to holders of securitised exposures at the expense of the credit institution that transferred the exposures.

(4) The securitisation documentation does not contain clauses that require the originator credit institution to enhance the credit quality of the transferred exposures or to increase the yield or risk premium payable to the holders of securitised exposures in response to a deterioration in the credit quality of the transferred exposures. For the purposes of this subsection, early amortisation of securitised exposures shall not be deemed a credit quality enhancement tool.

§ 168. Treatment of synthetic securitisations in the calculation of capital requirements for credit risk

(1) Instead of the Standardised Approach or the Internal Ratings Based Approach specified in Subdivisions 1 and 2 of this Division, an originator credit institution of a synthetic securitisation may calculate risk-weighted exposure amounts and expected loss amounts for securitised exposures in accordance with the methods set out in this Subdivision, if the credit risk associated with the securitised exposures has been transferred to the holders of securitised positions and the securitisation complies with the following conditions:

- 1) The securitisation documentation reflects the economic substance of the transaction.
- 2) The credit protection by which the credit risk is transferred complies with the requirements established in Subdivision of this Division; for the purposes of this clause, unfunded credit protection shall not be recognised as eligible credit protection.
- 3) The terms and conditions of the credit protection transaction do not impose significant materiality thresholds below which credit protection is deemed not to be triggered if a credit event occurs.
- 4) The terms and conditions of the credit protection transaction do not allow for the termination of the protection due to deterioration of the credit quality of the securitised exposures.
- 5) The terms and conditions of the credit protection transaction do not require the originator credit institution to enhance the credit quality of the securitised exposures positions in the securitisation; for the purposes of this subsection, early amortisation of securitised exposures shall not be deemed a credit quality enhancement tool.
- 6) The terms and conditions of the credit protection transaction do not provide for an increase in the credit institution's cost of credit protection or in the yield or risk premium payable to holders of positions in the securitisation in response to a deterioration in the credit quality of the underlying pool.
- 7) An opinion is obtained from an independent qualified expert confirming the enforceability of the credit protection in all relevant jurisdictions.

(2) An originator credit institution of a synthetic securitisation shall apply the procedure established in this Subdivision to the entire pool of exposures included in the securitisation, treating them as one or several securitisation positions with credit protection.

§ 169. Methods used for calculating risk-weighted exposure amounts

(1) Where a credit institution uses the Standardised Approach set out in Subdivision 1 of this Division for the calculation of risk-weighted exposure amounts for the exposure class to which the securitised exposures would be assigned, it shall calculate the risk-weighted exposure amount for a securitisation position in accordance with Sub-subdivision 2 of this Subdivision.

(2) Where a credit institution uses the Internal Ratings Based Approach set out in Subdivision 2 of this Division for the calculation of risk-weighted exposure amounts for the exposure class to which the securitised exposures would be assigned, it shall calculate the risk-weighted exposure amount for a securitisation position in accordance with Sub-subdivision 3 of this Subdivision.

§ 170. Securitisation position values

(1) Where a credit institution calculates risk-weighted exposure amounts under Sub-subdivision 2 of this Subdivision, the exposure value of an on-balance sheet securitisation position shall be its balance sheet value. Where the write-down of an asset is recognised on a separate row of the balance sheet, the position shall be included in the net value.

(2) Where a credit institution calculates risk-weighted exposure amounts under Sub-subdivision 3 of this Subdivision, the exposure value of an on-balance sheet securitisation position shall be measured not including value adjustments.

(3) The exposure values of securitisation positions arising from derivative instruments listed in Sub-subdivision 2 of Subdivision 6 of this Division shall be determined in accordance with Subdivision 6 of this Division.

§ 171. Treatment of maturity mismatches in synthetic securitisations

(1) Where a credit institution calculates risk-weighted exposure amounts of securitised exposures in accordance with this Subdivision and there are significant maturity mismatches between the securitised exposures and the credit protection instruments by which the exposures were securitised, the credit institution shall adjust the risk-weighted exposure amounts in accordance with subsections (2)-(4).

(2) The maturity of a portfolio of securitised exposures shall be taken to be the longest maturity of any of those exposures subject to a maximum of five years. The maturity of the credit protection shall be determined in accordance with Subdivision 3 of this Division.

(3) Risk-weighted exposure amounts of securitised exposures shall be adjusted according to the following formula:



where

RW^* is the adjusted risk-weighted exposure amount for the purposes of calculating the capital requirement;

$RW(A_{SS})$ is the risk-weighted exposure amounts of the securitised exposures that should have been used if the exposures had not been securitised;

$RW(SP)$ is the risk-weighted exposure amounts of securitised exposures calculated under this Subdivision if there was no maturity mismatch;

T is maturity of the underlying exposures expressed in years;

t is maturity of credit protection expressed in years;

t^* is 0.25.

(4) The adjustment shall not be applied to positions whose risk weight is 1250% under this Subdivision.

Sub-subdivision 2

Calculating risk-weighted exposure amounts for securitisation positions under the Standardised Approach

§ 172. Calculating risk-weighted exposure amounts for securitisation positions under the Standardised Approach

(1) Under the Standardised Approach, the risk-weighted exposure amount of a securitisation position shall be calculated by multiplying the exposure value calculated under section 170 by the risk weight calculated under this Sub-subdivision.

(2) Where a securitisation position has a short-term credit assessment, the risk weights corresponding to the credit quality steps determined by the Financial Supervision Authority pursuant to the procedure established in Sub-subdivision 2 of Subdivision 1 of this Division shall be as follows:

- 1) credit quality step 1 - 20%;
- 2) credit quality step 2 - 50%;
- 3) credit quality step 3 - 100%;
- 4) credit quality steps 4 and lower - 1250%.

(3) Where the external credit assessment assigned to a securitisation position is not a short-term credit assessment, the risk weights corresponding to the credit quality steps determined by the Financial Supervision Authority pursuant to the procedure established in Sub-subdivision 2 of Subdivision 1 of this Division shall be as follows:

- 1) credit quality step 1 - 20%;
- 2) credit quality step 2 - 50%;
- 3) credit quality step 3 - 100%;
- 4) credit quality step 4 - 100%;
- 5) credit quality steps 5 and lower - 1250%.

(4) In the absence of an external credit assessment the risk weight of 1250% shall be assigned to securitisation positions, except in the cases set out in sections 174-176.

§ 173. Upper limits of capital requirements for originator and sponsor credit institutions

(1) For an originator credit institution or sponsor credit institution, the capital requirement for its positions in a securitisation shall be limited to the capital requirement which would be calculated for the securitised exposures had they not been securitised.

(2) Where the risk-weighted exposure amounts of an originator credit institution or sponsor credit institution calculated in respect of all of its positions in a securitisation pursuant to the procedure established in this Subdivision are so high that the relevant capital requirement would exceed the highest possible capital requirement referred to in subsection (1) of this section, the aggregate risk-weighted exposure amount of the securitised positions in the securitisation shall be reduced so as to render the resulting capital requirement equal to the highest possible capital requirement referred to in subsection (1) of this section.

(3) To calculate the upper limit of capital requirements, a 150% risk weight shall be assigned to all past due items and items belonging to high risk categories.

(4) Positions deducted from the credit institutions' own funds in accordance with section 173 shall not be included in the calculation of the upper limit of capital requirements.

§ 174. Calculation of risk weights under the risk concentration method

(1) A credit institution having an unrated securitised position may apply risk weights calculated pursuant to the procedure established in subsection (2) of this section in the calculation of the capital requirement for that position

provided it has regular, precise and up-to-date information about the composition of the pool of exposures securitised.

(2) Under the risk concentration method, the risk weight of a securitised position is the weighted-average risk weight that would be applied to the securitised exposures underlying the securitised position under Subdivision 1 of this Division, adjusted with a concentration ratio. The calculation of the weighted-average risk weight shall be based on the risk weights that would be applied to the exposures had they not been securitised.

(3) To calculate the concentration ratio, the sum of the nominal amounts of all securitised positions arising from the securitisation shall be divided by the sum of the nominal amounts of the positions junior to or *pari passu* with the securitised position held by the credit institution. In the calculation of the sum of positions junior to or *pari passu* with the securitised position held by the credit institution, the securitised position held by the credit institution shall be taken into account, as well.

(4) Where the risk weight calculated under subsection (2) of this section is lower than the risk weight to be assigned to a senior position within the same securitisation under an external assessment, the risk weight assigned to the senior position within the same securitisation under the external assessment shall be assigned to the securitised position.

(5) Where the risk weight calculated under subsections (2) and (4) of this section is higher than 1250%, the risk weight of 1250% shall be applied.

(6) Where a credit institution that has used a risk weight calculated under the risk concentration method is no longer able to obtain regular, precise and up-to-date information about the securitised exposures and to calculate the average risk weight in accordance with subsection (2) of this section, it shall apply a risk weight of 1250% to the securitised position.

§ 175. Risk weights of securitised positions in an ABCP programme

(1) To securitised positions in an ABCP programme meeting the conditions specified in subsection (3) of this section, a risk weight may be applied which is the highest of the risk weights that would have been applied to the securitised exposures under Subdivision 1 of this Division had these exposures not been securitised.

(2) Where the highest risk weight of the securitised exposures is lower than 100%, a risk weight of 100% shall be applied.

(3) The risk weight set out in subsection (1) of this section may be assigned, if the securitised position in the ABCP programme simultaneously meets the following conditions:

1) The securitised position is in a tranche which is economically in a second loss position in the securitisation and the first loss position provides sufficient credit enhancement to the second loss position.

2) The credit quality of the securitised position is equivalent of investment grade credit quality under generally accepted market practices.

3) The securitised position is held by a credit institution which does not hold a position in the first loss tranche.

(4) Where a securitised position in an ABCP programme has arisen from a liquidity facility and the risk weight calculated under subsection (1) of this section is higher than the risk weight calculated for that position under section 176, the credit institution may apply the risk weight calculated under section 176 to the position.

§ 176. Risk weights of securitisation positions arising from liquidity facilities

(1) When all of the conditions set out in subsection (4) of this section are met, a conversion figure of 20% may be applied to an unrated securitisation position arising from a liquidity facility with an original maturity of one year or less, and a conversion figure of 50% may be applied to an unrated securitisation position arising from a liquidity facility with an original maturity of more than one year.

(2) Where a credit institution applies the figures set out in subsection (1) of this section, the risk weight to be assigned

to the adjusted securitised positions shall be the highest risk weight that would be applied to the securitised exposures under Subdivision 1 of this Division had the exposures not been securitised.

(3) A conversion figure of 0% may be applied to a securitisation position arising from a liquidity facility in the following cases:

- 1) the liquidity facility meets the conditions set out in subsection (4) of this section and it may be drawn only in the event of a general market disruption that causes liquidity-related difficulties for more than one SPE in servicing the securitised positions and these difficulties are not the result of an impairment of the credit quality of the securitised exposures;
- 2) the liquidity facility meets the conditions set out in subsection (4) of this section and it is unconditionally cancellable by the credit institution, provided that repayment of draws on the facility are senior to any other claims on the cash flow arising from the securitised exposures.

(4) The conversion figures set out in subsections (1) and (3) of this section may be applied on the following conditions:

- 1) the liquidity facility documentation shall clearly identify and limit the circumstances under which the facility may be drawn;
- 2) the liquidity facility documentation shall not enable the credit institution to provide funded or unfunded credit protection for other positions in the securitisation;
- 3) the liquidity facility documentation shall not contain any provisions that make it possible for the facility to be drawn so as to provide liquidity in respect of exposures in default;
- 4) the facility shall not be used to provide permanent or regular funding for the securitised positions;
- 5) repayment of draws on the facility shall not be subordinated to the claims of holders of other securitised positions other than to claims arising in respect of interest rate or currency derivative contracts and fees;
- 6) the liquidity facility documentation shall not provide for the possibility of waiver or deferral of repayment of draws on the facility;
- 7) it shall not be possible for the facility to be drawn after all applicable credit protection mechanisms ensuring the repayment of the facility are exhausted;
- 8) the facility shall include a provision that results in a reduction in the amount that can be drawn by the amount of exposures that are in default, or where the pool of securitised exposures consists of rated instruments, that terminates the facility if the average quality of the pool falls below investment grade.

§ 177. Treatment of credit risk mitigation on securitised positions

Where funded or unfunded credit protection is obtained on a securitised position, the risk-weighted exposure amounts may be calculated on the securitised position in accordance with Subdivision 3 of this Division.

§ 178. Alternative treatment of securitised positions

(1) In respect of a securitised position to which a 1250% risk weight would be assigned pursuant to the procedure established in this Subdivision, credit institutions may, as an alternative to including the position in their calculation of capital requirements for credit risk, deduct that position from own funds under subsection 75 (3) of the Credit Institutions Act.

(2) The calculation of the exposure value of the position to be deducted may reflect credit protection in a manner consistent with Subdivision 3 of this Division.

Sub-subdivision 3

Calculating risk-weighted exposure amounts for securitised positions under the Internal Ratings Based Approach

§ 179. Calculating risk-weighted exposure amounts for securitised positions under the Internal Ratings Based Approach

Where securitised exposures would be assigned to an exposure class to which a credit institution may apply the Internal Ratings Based Approach under section 86⁷ of the Credit Institutions Act, the credit institution shall calculate the risk-weighted exposure amount for the securitised position in accordance with this Sub-subdivision.

§ 180. Methods of calculating risk-weighted exposure amounts for securitised positions under the Internal Ratings Based Approach

(1) For securitised positions with an external assessment, the risk-weighted exposure amounts shall be calculated pursuant to the procedure established in section 178.

(2) For unrated positions the risk-weighted exposure amounts shall be calculated according to the Supervisory Formula Method set out in section 179, except where the credit institution uses the Internal Assessment Approach under section 181.

(3) A credit institution other than an originator credit institution or a sponsor credit institution may only use the Supervisory Formula Method set out in section 179 with the prior written approval of the Financial Supervision Authority.

(4) Subject to the prior approval of the Financial Supervision Authority, risk-weighted exposure amounts shall be calculated for a securitised position arising from an unrated ABCP programme pursuant to the procedure established in section 181.

(5) Where an originator or sponsor credit institution of an unrated securitised position does not have sufficient data to calculate K_{irb} and to use the Supervisory Formula Method under section 184 and it has not been authorised to use the Internal Assessment Approach as set out in section 182, the risk-weighted exposure amount shall be calculated according to the Inferred Ratings Method under section 181. Where due to non-conformity to the requirements established in subsection 181 (2) the Inferred Ratings Method cannot be employed, a risk weight of 1250% shall be assigned to the securitised position.

(6) Where a credit institution other than an originator or sponsor credit institution of an unrated securitised position has not been authorised by the Financial Supervision Authority to use the Internal Assessment Approach set out in section 182 or the Supervisory Formula Method set out in section 179, the risk-weighted exposure amount of the unrated securitised position shall be calculated according to the Inferred Ratings Method under section 181. Where due to non-conformity to the requirements established in subsection 181 (2) the Inferred Ratings Method cannot be employed, a risk weight of 1250% shall be assigned to the securitised position.

(7) Where the sum of the capital requirement for credit risk of a securitised position and the expected loss amount on that securitised position calculated by a credit institution exceeds the sum of the capital requirement and the expected loss amount that would have been calculated for the securitised exposures had these not been securitised, the credit institution shall recognise in the calculation of capital adequacy the capital requirement and the expected loss amount that would have been calculated for the securitised exposures had these not been securitised.

§ 181. Inferred Ratings Method

Under the Inferred Ratings Method, a credit institution shall attribute to an unrated securitised position the lowest of the risk weights that would be assigned under the Ratings Based Method established in section 182 to those rated positions of the same securitisation which are subordinate to the unrated securitised position in question, provided that the following requirements are satisfied:

- 1) the rated position on the basis of which the risk weight is determined must be subordinate in all respects to the unrated position to which the risk weight will be applied;
- 2) the maturity of the rated position must be equal to or longer than that of the unrated position to which the risk weight will be applied;
- 3) the external credit assessment of the rated position serving as the basis for determining the risk weight for an

unrated position is monitored on an ongoing basis and the risk weight of the unrated position is updated promptly to reflect any changes in the credit assessment of the rated position.

§ 182. General requirements on using the Internal Assessment Approach for positions in ABCP programmes

- (1) Subject to the prior written approval of the Financial Supervision Authority, credit institutions may calculate risk weights for securitised positions in ABCP programmes in accordance with the Internal Assessment Approach.
- (2) When granting the approval referred to in subsection (1) of this section, the Financial Supervision Authority shall guide itself by the requirements specified in subsections (3)-(18) of this section.
- (3) Commercial papers issued in the course of the securitisation shall have an external assessments.
- (4) The credit institution shall satisfy the Financial Supervision Authority that its internal methodology for assessing credit quality reflects, to a sufficient extent, the publicly available assessment methodology of one or more eligible ECAs which has been developed for the purpose of rating securitisation positions similar to those arising from the securitisation of the exposures in question.
- (5) When developing its internal methodology for assessing credit quality, a credit institution shall take into account, *inter alia*, the assessment methodologies of the eligible ECAs that have provided a credit quality assessment for the commercial papers issued in the course of the securitisation in question.
- (6) Quantitative parameters, such as stress factors, used in the credit institution's internal methodology for assessing credit quality shall be at least as conservative as those used in the relevant assessment methodology of the ECAs in question.
- (7) In developing its internal assessment methodology the credit institution shall take into consideration, in addition to the requirement established in subsection (5) of this section, all relevant published rating methodologies of the eligible ECAs which are used for the purpose of rating securitisation positions similar to those arising from the securitisation of the exposures in question.
- (8) The credit institution shall document the procedures for taking into account the methodologies of the eligible ECAs. At least once a year, the credit institution shall analyse changes in all publicly available rating methodologies and update its internal credit quality assessment methodology to reflect the changes, as appropriate.
- (9) The credit institution's internal credit quality assessment methodology shall be based upon credit quality rating grades that, in turn, shall be unambiguously associable with the credit quality steps corresponding to the credit assessments of eligible ECAs. The methodology according to which the credit institution associates its internal rating grades with the credit quality steps used by entities assessing credit quality shall be exhaustively and clearly described in the internal documentation of the credit institution.
- (10) The credit institution shall use its internal credit quality assessment methodology and the credit quality assessments provided under that methodology in the internal risk management processes, including its decision making, management information and capital allocation processes.
- (11) Internal or external auditors, an ECAI, or the credit institution's internal independent credit review or risk management function shall perform regular reviews of the internal assessment process and of the quality of the internal assessments of the credit quality of securitised positions.
- (12) If the credit institution's internal audit, credit review, or risk management functions performs the regular reviews set out in subsection (11) of this section, then these functions shall be independent of the business line that arranges securitisations or is responsible for the arrangement of customer relationships relating to securitisations.
- (13) The credit institution shall on a regular basis compare changes in the credit quality of securitised positions to the credit quality ratings provided under its internal assessment methodology to evaluate the performance of its internal

predictive assessment methodology. The credit institution shall make adjustments, as necessary, to its internal assessment methodology when the comparison routinely reveals divergences between the performance of securitised positions and the credit quality indicated by the internal ratings.

(14) The terms and conditions of the ABCP programme shall establish underwriting standards in the form of credit and investment guidelines, providing, *inter alia*, that the administrator of the securitisation shall:

- 1) consider the type of the exposures being securitised or purchased, the type and monetary value of the rights arising from the provision of liquidity facilities and credit enhancements, the loss distribution, and the legal and economic isolation of the securitised exposures from the entity transferring the exposures;
- 2) perform an analysis of the risk profile of the entity transferring the exposures being securitised, which shall include an analysis of past and expected future financial performance of the transferor, current market position and expected future competitiveness of the transferor, leverage, cash flow, interest coverage and debt rating, etc., of the transferor;
- 3) perform a review of the underwriting standards, servicing capabilities, and the quality of receivables management and collection processes of the entity transferring the exposures being securitised.

(15) The ABCP programme's underwriting standards shall establish minimum asset eligibility criteria for the exposures being securitised which, in particular:

- 1) exclude the purchase of exposures that are significantly past due or defaulted;
- 2) limit excess concentration of securitised exposures to individual obligors or geographic areas;
- 3) limits the tenor of the exposures to be securitised;
- 4) The documentation of the ABCP programme shall provide for collections policies and processes that take into account the credit quality and operational capability of the servicer.

(16) The documentation of the ABCP programme shall provide for at least one protection mechanism to mitigate the risk relating to the seller or servicer of securitised exposures and prevent the securitised exposures from being commingled with the bankruptcy estate of the seller or servicer of the securitised exposures, such as the possibility of early amortisation triggered upon a decline in the credit quality of the seller or servicer.

(17) The aggregated estimate of loss that the administrator of the securitisation has provided with regard to the receivables the acquisition of which is being considered shall take into account all sources of potential risk, including the credit and dilution risks. If the seller-provided credit enhancement is sized based only on credit risk-related losses, then the administrator of the securitisation shall establish a separate reserve for dilution risk, if dilution risk is material for the particular type of receivables. In sizing the required credit enhancement level, the administrator of the securitisation shall review historical information concerning losses, delinquencies, dilutions, and the turnover rate of the receivables for several of the past years.

(18) The terms and conditions of the securitisation shall provide for a protection mechanism, such as the option of early amortisation, in order to mitigate potential credit deterioration of the securitised exposures.

(19) The requirement for the assessment methodology of the ECAI to be publicly available, as established in subsection (4) of this section, may be waived by the Financial Supervision Authority where, in the opinion of the Financial Supervision Authority, the absence of a publicly available credit quality assessment methodology is due to the specific features of the securitisation.

(20) The credit institution shall assign unrated securitised positions to the rating system used by the ECAI whose methodology is applied for the purposes of internal credit quality assessment. Where the selected external assessment is considered to be corresponding to the level of investment grade or better under the market practice, the credit institution shall treat the securitised position as a position with an external assessment by an eligible ECAI for the purposes of calculating risk-weighted exposure amounts and shall apply the procedure established in section 182 to that position.

§ 183. Ratings Based Method

(1) The Ratings Based Method shall be used if a securitised position has an external assessment.

(2) Under the Ratings Based Method, the risk-weighted exposure amount of a rated securitised position shall be calculated by applying to the exposure value, calculated pursuant to the procedure established in this Subdivision, the risk weight set out in subsections (3) and (4) of this section. The risk-weighted exposure amount shall be adjusted by multiplying it by a coefficient of 1.06.

(3) To securitised positions with a short-term credit assessment the risk weights set out in the following table shall be applied on the basis of the credit quality steps determined by the Financial Supervision Authority pursuant to the procedure established in Sub-subdivision 2 of Subdivision 1 of this Division:

Credit quality step	Risk weight		
	A	B	C
1	7%	12%	20%
2	12%	20%	35%
3	60%	75%	75%
4 and lower	1250%	1250%	1250%

(4) Where the external assessment assigned to a securitised position is not a short-term credit assessment, the risk weights set out in the following table shall be applied to them on the basis of the credit quality steps determined by the Financial Supervision Authority pursuant to the procedure established in Sub-subdivision 2 of Subdivision 1 of this Division:

Credit quality step	Risk weight		
	A	B	C
1	7%	12%	20%
2	8%	15%	25%
3	10%	18%	35%
4	12%	20%	35%
5	20%	35%	35%
6	35%	50%	50%
7	60%	75%	75%
8	100%	100%	100%
9	250%	250%	250%
10	425%	425%	425%
11	650%	650%	650%
12 and lower	1250%	1250%	1250%

(5) The risk weights in column A of the tables set out in subsections (3) and (4) of this section shall be applied to securitised positions that are the most senior tranche of the securitisation. When determining whether a tranche is the most senior, a credit institution shall not take into consideration amounts due under interest rate or currency derivative contracts, fees due, or other similar payments.

(6) A risk weight of 6% may be applied to a position which would receive a risk weight of 7% under subsections (3) and (4) of this section, provided that:

- 1) the position has an external credit assessment which pursuant to the procedure established in Sub-subdivision 2 of Subdivision 1 of this Division would correspond to credit quality step 1; or
- 2) in the case of an unrated position, the position meets the requirements established in section 181 and the rated position based on which the credit quality step of the unrated position has been determined would receive a risk weight

of 7% under subsections (3) and (4) of this section;

3) The Financial Supervision Authority is satisfied that this is justified due to the loss absorption qualities of subordinate tranches in the securitisation.

(7) The risk weights in column C of the tables set out in subsections (3) and (4) of this section shall be applied where the position is in a securitisation where the effective number of exposures securitised, calculated under subsection (8) or (9) of this section is less than six.

(8) The effective number of securitised exposures is calculated according to the following formula:



where

EAD_i represents the sum of all exposures to the i^{th} obligor.

(9) Where the credit institution is aware of the share of the largest exposure in the portfolio of securitised exposures, the effective number of securitised exposures may be calculated according to the following formula:

$$N = 1/C_1,$$

where C_1 is the portfolio share associated with the largest exposure.

(10) In the case of resecuritisation, i.e. securitisation of securitised exposures, the credit institution must determine the number of securitised exposures in the second securitisation portfolio and not the number of underlying exposures in the original pools from which the underlying securitisation exposures stem.

(11) In the cases not regulated by subsections (5) and (7), the risk weights in column B of the tables set out in subsections (3) and (4) of this section shall be applied to securitised positions.

§ 184. Supervisory Formula Method

(1) Credit institutions authorised to use the Supervisory Formula Method for the purpose of determining the risk weights of securitised positions pursuant to this Decree shall calculate the risk weight of a securitised position according to the following formula:



where



where:





$$\tau = 1000$$

$$\omega = 20$$

(2) The following symbols were used in the formulas set out in subsection (1) of this section:

- 1) $Beta[x; a, b]$ refers to the cumulative beta distribution with parameters a and b evaluated at x ;
- 2) T represents the ratio of the nominal amount of the securitised position to the sum of the exposure values of the exposures that have been securitised. For the purposes of calculating the sum of the exposure values, the exposure value of a derivative instrument listed in Sub-subdivision 2 of Subdivision 6 of this Division shall, where the current replacement cost is negative or equal to zero, be the potential future credit exposure calculated in accordance with Subdivision 6 of this Division;
- 3) K_{IRBr} represents the ratio of K_{IRB} to the sum of the exposure values of the exposures that have been securitised, expressed as a coefficient;
- 4) L represents the credit enhancement level, measured as the ratio of the sum of all securitisation positions subordinate to the position for which the risk weight is calculated to the sum of the exposure values of the exposures that have been securitised. Capitalised future income shall not be included in the calculation of L . Amounts due by counterparties to derivative instruments listed in Sub-subdivision 2 of Subdivision 6 of this Division that represent positions more junior than the position for which the risk weight is calculated may be measured at their current replacement cost (without the potential future credit exposures);
- 5) N is the effective number of exposures calculated in accordance with the formula set out in subsection 182 (8);
- 6) $ELGD$ is the exposure-weighted average LGD, calculated as follows:



where

LGD_i represents the average LGD associated with all exposures to the i^{th} obligor, where LGD is determined in accordance with Subdivision 2 of this Division subject to the provisions of subsections (3) and (4) of this section.

(3) In the case of resecuritisation, i.e. securitisation of exposures that arose as a result of an earlier securitisation, an LGD of 100% shall be applied to the securitised positions.

(4) When receivables purchased by the credit institution are the securitised exposures and where credit risk and dilution risk for the purchased receivables are treated in an aggregate manner under the securitisation contract, the LGD input shall be constructed as a weighted average of the LGD for credit risk and the 75% LGD for dilution risk. Capital requirements calculated for credit risk and dilution risk shall be used as the weights.

(5) If the exposure value of the largest securitised exposure is no more than 3% of the sum of the exposure values of the securitised exposures, then, for the purposes of the Supervisory Formula Method, the credit institution may, instead of the inputs set out in subsection (2) of this section, use the following simplification based inputs:

1) $LGD = 50\%$;

N is a value calculated as follows:



or

$$N = I/C_1,$$

where

C_m is the ratio of the sum of the exposure values of the largest 'm' exposures to the sum of the exposure values of the exposures securitised. The level of m may be set by the credit institution at its own discretion.

3) For securitisations involving retail exposures of varying amounts, credit institutions may implement the Supervisory Formula Method using the simplifications: $h = 0$ and $v = 0$, subject to the approval of the Financial Supervision Authority.

(6) Where the risk weight determined by a credit institution under subsection (1) of this section is lower than 7%, the risk weight of 7% shall be applied.

§ 185. Risk weights of positions arising from liquidity facilities

(1) A conversion figure of 20% may be applied to an unrated position arising from a liquidity facility that may only be drawn in the event of a general market disruption and that meets the conditions established in subsection 176 (4).

(2) A conversion figure of 0% may be applied to an unrated position arising from a liquidity facility that meets the conditions established in subsection 176 (3).

§ 186. Simplified treatment of positions arising from liquidity facilities

(1) When, in the opinion of a credit institution, due to the complicatedness and costliness of calculations, it is not practical for the credit institution to calculate the risk-weighted exposure amounts for securitised exposures as if they had not been securitised, the credit institution may, subject to the prior written approval of the Financial Supervision Authority, temporarily apply the method set out in subsection (2) of this section for the calculation of the risk-weight of the securitisation position arising from a liquidity facility that meets the conditions set out in subsection 176 (4).

(2) The highest risk weight that would be applied to securitised exposures under Subdivision 1 of this Division may be applied to securitised positions arising from a liquidity facility. In such a case, the following conversion figures may be used in the calculation of the exposure value of a securitised position:

- 1) 50% if the liquidity facility has an original maturity of one year or less;
- 2) 20% if the liquidity facility complies with the conditions established in subsection 175 (1);
- 3) 100% for cases not covered by clause 1) or 2) of this subsection.

§ 187. Recognition of credit risk mitigation in respect of securitised positions

(1) Funded protection shall only be recognised in the calculation of risk-weighted exposure amounts for securitised positions if it complies with the requirements established in Subdivision 3 of this Division.

(2) Unfunded protection shall only be recognised in the calculation of risk-weighted exposure amounts for securitised positions if the credit protection and the protection provider comply with the requirements established in Subdivision 3 of this Division.

§ 188. Recognition of credit protection under the Ratings Based Method

Where risk-weighted exposure amounts are calculated for a securitised position using the Ratings Based Method set out in section 182 and the securitised position has funded or unfunded credit protection, the exposure value and/or the risk-weighted exposure amount for the securitised position shall be adjusted pursuant to the procedure established in Subdivision 3 of this Division.

§ 189. Recognition of credit protection under the Supervisory Formula Method

(1) Where risk-weighted exposure amounts are calculated for a securitised position using the Supervisory Formula Method set out in section 183 and the securitised position has funded or unfunded credit protection, the credit institution shall determine the effective risk weight of the position. To determine the effective risk weight, the credit institution shall divide the risk-weighted exposure amount of the position by the exposure value of the position and

multiply the result by 100.

(2) In the case of funded credit protection, the credit institution shall determine the adjusted value E^* of the position in accordance with the procedure for recognition of funded credit protection set out in Subdivision 3 of this Division. To calculate the risk-adjusted value, the funded protection-adjusted exposure amount of the position shall be multiplied by the effective risk weight determined under subsection (1) of this section.

(3) In the case of unfunded credit protection, the risk-weighted exposure amount of the securitised position shall be calculated as follows:

- 1) G_A (the adjusted amount of the protection) shall be determined in accordance with the provisions of Subdivision 3 of this Division;
- 2) the adjusted amount of the credit protection shall be multiplied by the risk weight of the protection provider;
- 3) the part of the securitised position which is not covered by credit protection shall be multiplied by the effective risk weight set out in subsection (1) of this section;
- 4) the risk-weighted amounts determined under subsections (2) and (3) shall be summed up.

§ 190. Recognition of partial credit protection under the Supervisory Formula Method

(1) If the credit protection contract provides for covering the losses that may occur on a proportional basis on the securitised position, the credit institution shall apply the provisions of section 184.

(2) In other cases, the credit institution shall treat the securitised position as two positions one of which is covered by credit protection and the other is not covered with credit protection. The position whose credit quality is better shall be treated as the position covered by credit protection.

(3) The portion covered by credit protection shall be treated pursuant to the procedure established in section 136, subject to the assumption that:

- 1) T shall be adjusted to e^* in the case of funded credit protection, where e^* denotes the ratio of E^* to the aggregate amount of the securitised exposures, and where E^* is the adjusted exposure amount of the securitised position calculated in accordance with the provisions of Subdivision 3 of this Division;
- 2) T shall be adjusted to $T-g$ in the case of unfunded credit protection, where "g" is the ratio of the nominal amount of credit protection (adjusted for any currency or maturity mismatch in accordance with the provisions of Subdivision 3 of this Division) to the sum of the exposure amounts of the securitised exposures.

(4) In the case of unfunded credit protection the risk weight of the protection provider shall be applied to that portion of the position not falling within the adjusted value of T .

§ 191. Reduction of risk-weighted exposure amounts

(1) The risk-weighted exposure amount of a securitised position to which a 1250% risk weight is assigned may be reduced by 12.5 times the amount of any value adjustments made by the credit institution in respect of the securitised exposures. In such a case the value adjustments shall not be taken account of for the purposes of the treatment of expected losses according to Sub-subdivision 3 of Subdivision 2 of this Division.

(2) In respect of a securitised position in respect of which a 1250% risk weight applies under this Subdivision, credit institutions may, as an alternative to including the position in their calculation of risk-weighted exposure amounts, deduct from own funds the exposure value of the position.

(3) For the purposes of deducting the exposure value of a securitised position as set out in subsection (2) of this section, the credit institution may:

- 1) derive the exposure value of the position from the risk-weighted exposure amounts taking into account any reductions made in accordance with subsection (1) of this section;

- 2) take into account funded credit protection in accordance with sections 182-185;
 - 3) where the Supervisory Formula Method is used and $L < K_{IRB_r}$ and $[L+T] > K_{IRB_r}$, the position may be treated as two positions with L equal to K_{IRB_r} for the more senior of the positions.
- (4) The credit institution shall not take account of the position deducted under subsection (2) of this section in determining the maximum capital requirement under subsection 179 (6).

Sub-subdivision 4

Specifications of calculating risk-weighted exposure amounts for securitisation positions arising from revolving exposures

§ 192. Additional risk-weighted exposure amounts for securitisation positions arising from revolving exposures

- (1) In addition to the risk-weighted exposure amounts calculated in respect of its securitised positions in accordance with Sub-subdivisions 2 and 3 of this Subdivision, an originator credit institution shall calculate risk-weighted exposure amounts for securitised revolving exposures if the terms and conditions of securitisation provide for the investors' right of early amortisation.
- (2) The additional risk-weighted exposure amount shall be determined by multiplying the amount of the part of securitised exposures calculated in accordance with section 193 by the product of the appropriate conversion figure as indicated in section 194 and the weighted average risk weight that would apply to the securitised exposures pursuant to Subdivision 1 of this Division if the exposures had not been securitised.
- (3) Where the securitised exposures comprise both revolving and non-revolving exposures, a credit institution shall apply the treatment set out in subsection (2) to the portion of the underlying pool containing revolving exposures.
- (4) A credit institution need not calculate the additional risk-weighted exposure amount specified in subsection (2), if the following conditions are simultaneously met:
 - 1) the terms and conditions of the securitisation provide for the obligation of the holders of securitised positions to bear any credit risks relating to future exposures arising from future draws by borrowers even after an early amortisation event has occurred, and
 - 2) according to the terms and conditions of the securitisation, any early amortisation provision is solely triggered by events not related to any changes in the credit quality of the securitised revolving exposures or of the originator credit institution.
- (5) The total of the additional risk-weighted exposure amounts determined in accordance with subsection (2) and the risk-weighted exposure amounts of the securitised positions held by the credit institution in the same securitisation shall be no greater than the greater of:
 - 1) the risk-weighted exposure amounts of the securitised positions held by the credit institution in the same securitisation, and
 - 2) the risk-weighted exposure amounts that the credit institution would calculate in respect of the securitised exposures, had they not been securitised.

§ 193. Calculating the securitised part of revolving exposures

- (1) Where a credit institution calculates risk-weighted exposure amounts on securitised positions arising from revolving exposures pursuant to the procedure established in Sub-subdivision 2 of this Subdivision, the securitised part of the revolving exposures is the sum of securitised revolving exposures to the extent of amounts drawn by clients, unless otherwise specified in subsections (2)-(5) of this section.
- (2) Where a credit institution calculates risk-weighted exposure amounts on securitised positions arising from revolving exposures pursuant to the procedure established in Sub-subdivision 3 of this Subdivision, the securitised part of the revolving exposures is the sum of the amounts drawn under securitised revolving exposures and the undrawn

portion of the exposures.

(3) A credit institution may deduct from the securitised part of revolving exposures calculated under subsection (1) or subsection (2) a certain proportion of principal and interest collections relating to the securitised revolving exposures, provided that according to the terms and conditions of the securitisation that proportion belongs to the credit institution, not to the holders of the securitised positions.

(4) Where a credit institution applies subsection (3), the credit institution shall treat its proportion of principal and interest collections as revolving exposures that have not been securitised.

§ 194. Conversion figures for securitised positions arising from revolving exposures

(1) Where the securitised exposures are retail exposures which are unconditionally cancellable without prior notice and where, under the securitisation contract, the early amortisation is triggered by the excess spread level of the securitisation falling below a predetermined minimum level, credit institutions shall calculate the conversion figures in accordance with this section.

(2) To determine the conversion figure, a credit institution shall compare the three-month average excess spread level with the periodic trapping point prescribed in the securitisation contract. For the purposes of this section, "trapping point" means the contractual percent of excess spread based on which the credit institution calculates the proportion of the excess spread to be included in a reserve to cover possible future losses. For the purposes of the calculations set out in this subsection, the trapping point shall be expressed as a percent of the residual value of securitised exposures. Where the securitisation contract does not require excess spread to be trapped, the trapping point is deemed to be 4.5 percentage points greater than the minimum excess spread level referred to above.

(3) The conversion figure to be applied shall be determined by the level of the actual three-month average excess spread calculated in accordance with subsection (2), being based on the following table and on whether the securitisation contract provides for a controlled or non-controlled option of early amortisation for investors:

	Controlled early amortisation provision	Non-controlled early amortisation provision
3-month average excess spread	Conversion figure	Conversion figure
Above 133.33%	0%	0%
From 100% to 133.33%	1%	5%
From 75% to 100%	2%	15%
From 50% to 75%	10%	50%
From 25% to 50%	20%	100%
25% or less	40%	100%

(4) For the purposes of this section, the early amortisation provision is controlled where the following conditions are met:

- 1) the originator credit institution has an appropriate capital/liquidity plan in place to ensure that it has sufficient net own funds and liquidity available in the event of an early amortisation option being exercised, and the credit institution is ready to immediately implement that plan;
- 2) throughout the duration of the securitisation transaction there is pro rata sharing between the originator's interest and other investors' interest of payments of interest and principal, expenses, losses and recoveries based on the balance of receivables outstanding at one or more reference points during each month;
- 3) the credit institution considers the amortisation period sufficient for 90% of the balance of receivables outstanding at the beginning of the early amortisation period to have been repaid or recognised as in default;
- 4) the speed of repayment is no more rapid than would be achieved by straight-line amortisation, i.e. the redemption of

securitised positions evenly over the period set out in subsection clause 3) of this subsection.

(%) All other securitisations subject to a controlled early amortisation provision shall be subject to a conversion figure of 90%.

All other securitisations subject to a non-controlled early amortisation provision shall be subject to a conversion figure of 100%.

Subdivision 5

Calculating exposure values for off-balance sheet items

§ 195. Exposure values of off-balance sheet items

(1) To calculate the exposures values of off-balance sheet items, the conversion figures set out in subsection (2) of this section shall be applied. A conversion figure represents the probability of the off-balance sheet item being realised.

(2) The conversion figures to be applied to exposures arising from off-balance sheet items are the following:

- 1) 100% in the case of full-risk off-balance sheet items;
- 2) 50% in the case of medium-risk off-balance sheet items;
- 3) 20% in the case of medium/low-risk off-balance sheet items;
- 4) 0% in the case of low-risk off-balance sheet items.

(3) Subject to the existence of credit protection meeting the criteria set out in Subdivision 3 of this Division, conversion figures shall be applied after the adjustment of the exposure on account of the credit protection.

§ 196. Full-risk off-balance sheet items

Full-risk off-balance sheet items include the following:

- 1) guarantees having the character of credit substitutes;
- 2) credit derivatives;
- 3) acceptances;
- 4) endorsements on bills not bearing the name of another credit institution;
- 5) transactions with recourse, involving the sale and repurchase of securities or other assets, in the case of which the credit institution bears the credit risk;
- 6) irrevocable standby letters of credit having the character of credit substitutes;
- 7) securities or other assets purchased under outright forward purchase agreements;
- 8) forward deposits;
- 9) the unpaid portion of partly-paid securities;
- 10) asset sale and repurchase agreements that are not recorded on the balance sheet;
- 11) other off-balance sheet items also carrying full risk.

§ 197. Medium-risk off-balance sheet items

Medium-risk off-balance sheet items include the following:

- 1) documentary credits issued and confirmed;
- 2) note issuance facilities (NIF) and revolving underwriting facilities (RUF);
- 3) standby letters of credit not having the character of credit substitutes;
- 4) undrawn credit facilities and other similar liabilities (incl. agreements to purchase securities, provide guarantees or acceptance facilities) with an original maturity of more than one year;
- 5) warranties and indemnities not having the character of credit substitutes (including tender, performance, customs and tax guarantees), in the case of which the credit institution is obliged to perform the non-monetary liabilities of a customer or to pay compensation to a third party where commodities delivered or service provided fails to conform to

contractual terms;

6) other off-balance sheet items also carrying medium risk.

§ 198. Medium/low-risk contingent claims

Medium/low-risk off-balance sheet items include the following:

- 1) short-term documentary credits in which underlying shipment acts as collateral, and other self-liquidating documentary credits;
- 2) undrawn credit facilities and other similar liabilities (incl. agreements to purchase securities, provide guarantees or acceptance facilities) with an original maturity of up to and including one year which may not be cancelled unconditionally at any time without notice or that do not effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness;
- 3) other off-balance sheet items also carrying medium/low risk.

§ 199. Low-risk off-balance sheet items

Low-risk off-balance sheet items include the following:

- 1) undrawn credit facilities or other similar liabilities (incl. agreements to purchase securities, provide guarantees or acceptance facilities) with an original maturity of up to and including one year which may be cancelled unconditionally at any time without notice or that do effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness; retail credit lines may be considered as unconditionally cancellable if the contract terms permit the credit institution to cancel them unconditionally at least to the extent allowed under consumer protection and related legislation;
- 2) other off-balance sheet items also carrying low risk.

Subdivision 6

Calculating exposure values for derivative instruments, repurchase transactions, securities or commodities lending or borrowing transactions, long settlement transactions and margin lending transactions

Sub-subdivision 1

Definitions

§ 200. Netting sets, hedging sets, and related terms

For the purposes of this Subdivision, the following definitions shall apply to transaction sets:

- 1) "Netting set" means a group of transactions with a single counterparty that are subject to a bilateral netting arrangement legally enforceable with regard to each of the counterparties and for which netting is recognised under Sub-subdivision 8 of this Subdivision and under Subdivision 3 of this Division. Each transaction that is not subject to a legally enforceable bilateral netting arrangement, which is recognised under Sub-subdivision 8 of this Subdivision, shall be interpreted as its own netting set for the purpose of this Subdivision.
- 2) "Risk Position" means the size of a risk calculated in accordance with Sub-subdivision 6 of this Subdivision.
- 3) "Hedging set" means a group of risk positions from the transactions within a single netting set for which only their balance is relevant for determining the exposure value under the method set out in Sub-subdivision 6 of this Subdivision.
- 4) "Margin agreement" means an agreement or provisions of an agreement under which one counterparty shall supply collateral to a second counterparty when an exposure of that second counterparty to the first counterparty exceeds a pre-determined level.
- 5) "Margin threshold" means the largest amount of an exposure that remains outstanding until the lender has the right to call for collateral.
- 6) "Margin period of risk" means the time period from the last exchange of collateral covering a netting set of transactions with a defaulting counterpart until that counterpart is closed out and the resulting market risk is re-hedged.
- 7) "Effective maturity under the Internal Model Method" for a netting set with maturity greater than one year means

the ratio of the sum of expected exposure over the life of the transactions in the netting set discounted at the risk-free rate of return divided by the sum of expected exposure over one year in a netting set discounted at the risk-free rate. This effective maturity may be adjusted to reflect rollover risk by replacing expected exposure with effective expected exposure for forecasting horizons under one year.

8) "Cross-product netting" means the inclusion of transactions of different product categories within the same netting set pursuant to the cross-product netting rules set out in this Subdivision.

9) "Current market value (CMV)" refers to the net market value of the portfolio of transactions within the netting set with the counterparty. Both positive and negative market values are used in computing CMV.

§ 201. Definitions used with regard to distributions

For the purposes of this Subdivision, the following definitions shall apply in respect of distributions:

1) "Distribution of market values" means the forecast of the probability distribution of net market values of transactions within a netting set for some future date (the forecasting horizon), given the realised market value of those transactions up to the present time.

2) "Distribution of exposures" means the forecast of the probability distribution of market values that is generated by setting forecast instances of negative net market values equal to zero.

3) "Risk-neutral distribution" means a distribution of market values or exposures at a future time period where the distribution is calculated using market implied values such as implied volatilities.

4) "Actual distribution" means a distribution of market values or exposures at a future time period where the distribution is calculated using historic or realised values such as volatilities calculated using past price or rate changes.

§ 202. Definitions used with regard to exposure measures and adjustments

For the purposes of this Subdivision, the following definitions shall apply to exposure measures and adjustments:

1) "Current exposure" means the market value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Where the market value of a transaction or portfolio of transactions within a netting set is negative, the current exposure shall be equalised with zero.

2) "Peak exposure" means a high percentile of the distribution of exposures at any particular future date before the maturity date of the longest transaction in the netting set.

3) "Expected exposure (EE)" means the average of the distribution of exposures at any particular future date before the longest maturity transaction in the netting set matures.

4) "Effective expected exposure (effective EE) at a specific date" means the maximum expected exposure that occurs at that date or any prior date. Alternatively, the effective EE may be defined for a specific date as the greater of the expected exposure at that date, or the effective exposure at the previous date.

5) "Expected positive exposure (EPE)" means the weighted average over time of expected exposures where the weights are the proportion that an individual expected exposure represents of the entire time interval. When calculating the minimum capital requirement, the average is taken over the first year. If all the contracts within the netting set mature within less than one year, the average is taken over the time period of the longest maturity contract in the netting set.

6) "Effective expected positive exposure (effective EPE)" means the weighted average over time of effective expected exposure over the first year, where the weights are the proportion that an individual expected exposure represents of the entire time interval. If all the contracts within the netting set mature within less than one year, the average is taken over the time period of the longest maturity contract in the netting set.

7) "Credit valuation adjustment" means an adjustment to the mid-market valuation (the average of bid and offer prices) of the portfolio of transactions with a counterparty which reflects the market value of the credit risk due to any failure to perform on contractual agreements with a counterparty. This adjustment may reflect the market value of the credit risk of the counterparty or the market value of the credit risk of both the credit institution and the counterparty.

8) "One-sided credit valuation adjustment" means a credit valuation adjustment that reflects the market value of the credit risk of the counterparty to the credit institution, but does not reflect the market value of the credit risk of the credit institution to the counterparty.

§ 203. Definitions used with regard to counterparty credit risk

For the purposes of this Subdivision, the following definitions shall apply in respect of a counterparty credit risk:

- 1) "Rollover risk" means the amount by which expected positive exposure is understated when future transactions with a counterparty are expected to be conducted on an ongoing basis. The additional exposure generated by those future transactions is not included in calculation of EPE.
- 2) "General wrong-way risk" arises when the PD of counterparties is positively correlated with general market risk factors.
- 3) "Specific wrong-way risk" arises when the exposure to a particular counterparty is positively correlated with the PD of the counterparty due to the nature of the transactions with the counterparty. A credit institution shall be considered to be exposed to a specific wrong-way risk if the future exposure to a specific counterparty is expected to be high when the counterparty's PD is also high.

Sub-subdivision 2 Types of derivatives

§ 204. Application of this Sub-subdivision

This Sub-subdivision lists the derivatives that are subject to the treatment of the exposure value calculation set out in this Subdivision.

§ 205. Interest-rate-related contracts

Interest-rate-related contracts include:

- 1) single-currency interest rate swaps;
- 2) basis-swaps;
- 3) forward rate agreements;
- 4) interest rate futures;
- 5) interest-rate options purchased;
- 6) other contracts of a similar nature.

§ 206. Foreign-exchange contracts and contracts concerning gold

Foreign-exchange contracts and contracts concerning gold include the following:

- 1) cross-currency interest rate swaps;
- 2) forward foreign-exchange contracts;
- 3) currency futures;
- 4) currency options purchased;
- 5) other contracts of similar nature.

§ 207. Contracts concerning other underlying obligations

Derivatives relating to other underlying obligations are derivatives of a nature similar to those listed in clauses 1)-5) of section 205 and in clauses 1)-4) of section 206 with assets and indices not set out in these sections as the underlying financial instruments, including:

- 1) derivative contracts relating to securities, currencies, interest rates or yields, or other derivatives instruments, financial indices or financial measures which may be settled physically or in cash;
- 2) derivative instruments relating to commodities which must be settled in cash or may be settled in cash at the option of one of the parties under the terms of the contract;
- 3) derivative instruments relating to commodities which can be physically settled provided that the commodities are traded on a regulated market or through a multilateral trading facility (MTF);

- 4) derivative instruments relating to commodities which can be physically settled not otherwise mentioned in clause 3) of this section, provided that the relevant transactions are not concluded for commercial purposes and have the characteristics of other derivative financial instruments, having regard to whether, inter alia, they are cleared and settled through recognised clearing houses or are subject to regular margin calls;
- 5) financial contracts for differences;
- 6) derivative instruments relating to climatic variables, freight rates, emission allowances or inflation rates or other official economic statistics which must be settled in cash or may be settled in cash at the option of one of the parties to the contract, as well as any other derivative contracts relating to assets, rights, obligations, indices and measures not otherwise mentioned in this Subdivision, which have the characteristics of other derivative financial instruments, having regard to whether, inter alia, they are settled through recognised clearing systems or are subject to regular margin calls.

Sub-subdivision 3 **Calculating exposure values**

§ 208. Methods used for calculating exposure values

(1) The following methods shall be used for calculating the exposure values of derivatives:

- 1) Mark-to-Market Method;
- 2) Original Exposure Method;
- 3) Standardised Method;
- 4) Internal Model Method.

(2) The combined use of the methods set out in subsection (1) of this section is only permitted on a permanent basis within the consolidation group of a credit institution, but not within a single legal entity.

(3) Combined use of the Mark-to-Market Method and the Standardised Method within a credit institution is permitted where one of the methods is used for the cases set out in subsection 219 (2).

§ 209. Restrictions on using methods

(1) Credit institutions that have not been exempted from the obligation to calculate capital requirements to cover the risks of their trade portfolios shall not use the Original Exposure Method for calculating exposure values.

(2) The Original Exposure Method shall not be used for calculating the exposure values of derivatives set out in section 207.

(3) To calculate exposure values pursuant to the Internal Model Method, a credit institution shall first apply for the approval of the Financial Supervision Authority and submit evidence concerning compliance with the requirements established in Sub-subdivision 7 of this Subdivision.

(4) The Financial Supervision Authority shall make a decision regarding the grant of or refusal to grant the approval set out in subsection (3) of this section within one month after the receipt of all the required documents and information, but not later than within four months after the receipt of the application.

§ 210. Exceptions relating to credit derivatives

Where a credit institution has acquired a credit derivative to mitigate a credit risk arising from an instrument discussed in this Division or as protection against a counterparty credit risk, the exposure value of the credit derivative counterparty's credit risk shall be set to zero and the minimum capital requirements for the hedged exposure shall be calculated using one of the following methods:

- 1) the rules of valuation of unfunded credit protection established in Subdivision 3 of this Division;
- 2) the rules established in Subdivision 2 of this Division, subject to the approval of the Financial Supervision

Authority;

3) subject to the approval of the Financial Supervision Authority, the minimum requirements of the Internal Ratings Based Approach and the requirements specific to valuation of guarantees and credit derivatives as established in sections 96-100.

§ 211. Exceptions relating to credit default swaps

The exposure value for a counterparty credit risk from sold credit default swaps in the non-trade portfolio, where they are treated as credit protection provided by the credit institution and subject to a capital requirement for credit risk for the full notional amount, is set to zero.

§ 212. Exposure values of netting sets

Under all methods set out in subsection 208 (1), the exposure value for a given counterparty is equal to the sum of the exposure values calculated for each netting set with that counterparty.

§ 213. Transactions with central counterparties

(1) An exposure value of zero for a counterparty credit risk can be attributed to transactions with central counterparties discussed in this Subdivision, if the transactions have not been rejected by the central counterparty and are collateralised on a daily basis.

(2) For the purpose of calculating the capital requirement for credit risk arising from transactions discussed in this Subdivision, an exposure value of zero can be attributed to the credit risk exposures, if the transactions have not been rejected by the central counterparty and are collateralised on a daily basis.

§ 214. Exceptions relating to long settlement transactions

(1) Exposures arising from long settlement transactions can be determined using any of the methods set out in subsection 208 (1), regardless of the methods chosen for treating OTC derivatives and repurchase transactions, securities or commodities lending or borrowing transactions, and margin lending transactions.

(2) In calculating capital requirements for long settlement transactions, credit institutions that use the Internal Ratings Based Approach for calculating the capital requirements for credit risk may assign the risk weights prescribed under the Standardised Approach irrespective of the materiality of such positions.

Sub-subdivision 4 Mark-to-Market Method of calculating exposure values

§ 215. Calculating exposure values under the Mark-to-Market Method

(1) Under the Mark-to-Market Method, an exposure value is equal to the sum of the current replacement cost, calculated in accordance with this Sub-subdivision, and potential future credit exposure.

(2) For single-currency floating interest rate swaps, the exposure value is equal to the replacement cost.

§ 216. Replacement cost

(1) Replacement cost is a cost arising where a counterparty fails to comply with its contractual obligations and the credit institution must enter into a new, similar contract or conclude the transaction at another price (market price).

(2) The replacement cost shall be calculated for all contracts with positive market values.

§ 217. Potential future credit exposure

(1) Potential future credit exposures shall be calculated by multiplying the notional principal amounts or underlying

values by the percentages set out in the following table:

Residual maturity	Interest rate related derivatives	Derivatives related to foreign exchange rates and gold	Securities related derivatives	Derivatives related to precious metals (except gold)	Derivatives related to commodities (other than precious metals)
One year or less	0%	1%	6%	7%	10%
Over one year, not exceeding five years	0,5%	5%	8%	7%	12%
Over five years	1,5%	7,5%	10%	8%	15%

(2) Instruments which do not fall within one of the five categories indicated in the table in subsection (1) of this section shall be treated as derivatives related to commodities other than precious metals.

(3) Residual maturity means the period from the reporting date until the term of the contract in question.

(4) For contracts whose terms are reset on specified dates such that the market value of the contract is zero on these specified dates, the residual maturity would be equal to the period from the reporting date until the next reset date. In the case of interest-rate-related derivatives that meet these criteria and have a residual maturity of over one year, the percentage shall be no lower than 0.5%.

(5) For contracts with multiple exchanges of principal, the percentages indicated in the table in subsection (1) of this section shall be multiplied by the number of remaining payments still to be made according to the contract.

Sub-subdivision 5 **Original Exposure Method of calculating exposure values**

§ 218. Calculating exposure values under the Original Exposure Method

(1) Under the Original Exposure Method, exposure values shall be calculated by multiplying the notional amounts of instruments by the percentages indicated in the following table.

Maturity	Interest-related derivatives	Derivatives related to foreign exchange rates and gold
One year or less	0.5%	2%
Over one year, not exceeding two years	1%	5%
Additional allowance for each additional year	1%	3%

(2) For interest rate related derivatives, the maturity is equal to the residual maturity, i.e. the period from the reporting date until the term of the contract in question.

(3) For derivatives related to foreign exchange rates and gold, the maturity is equal to the original maturity.

Sub-subdivision 6 **Standardised Method of calculating exposure values**

§ 219. Terms and conditions of calculating exposure values under the Standardised Method

(1) The Standardised Method may be used only for calculating the exposure values of OTC derivatives and long settlement transactions.

(2) Where a credit institution has not been authorised to use internal models under subsection 205 (3) and it is not

capable of calculating the delta for transactions with a non-linear risk profile specified in Subdivision 4 of Division 6 of this Chapter or the modified duration for debt instruments constituting payment legs or underlying instruments, the exposure value shall be calculated pursuant to the method established in Sub-subdivision 4 of this Subdivision.

(3) Netting shall not be implemented in the case described in subsection (2) of this section, and the exposure value shall be determined as if there were a netting set that comprises just the individual transaction.

§ 220. Calculating exposure values under the Standardised Method

(1) Under the Standardised Method, the exposure value shall be calculated separately for each netting set. The exposure value of a netting set is equal to the value of transactions in the set, determined without the market value of collateral pursuant to the following formula:

$$E = \frac{CMV - \sum_i CMV_i + \sum_l CMC_l}{\beta}$$

where

CMV is the current market value of the portfolio of transactions within the netting set with a counterparty not including collateral,

thus $\sum_i CMV_i$, where CMV_i is the current market value of transaction i ;

CMC is the current market value of the collateral assigned to the transactions in the netting set,

thus $\sum_l CMC_l$, where CMC_l is the current market value of collateral l ;

i = index designating transaction;

l = index designating collateral;

j is the index designating the hedging set category; risk positions of opposite sign may be offset to yield a net risk position on which the exposure measure is then based;

RPT_{ij} is the risk position from transaction i with respect to hedging set j ;

RPC_{lj} is the risk position from collateral l with respect to hedging set j ;

$CCRM_j$ is the CCR Multiplier set out in the table in subsection 218 (1) with respect to hedging set j ;

$\beta = 1.4$.

(2) For the purposes of this section, only the collateral set out in section 108 shall be treated as acceptable collateral. Collateral received from a counterparty has a positive sign and collateral posted to a counterparty has a negative sign.

§ 221. General principles of mapping transactions with a linear risk profile to risk positions

(1) When an OTC derivative transaction with a linear risk profile stipulates the exchange of a financial instrument for a payment, the payment part of the transaction is referred to as the payment leg. Transactions that stipulate the exchange of payment against payment consist of two payment legs. The payment legs consist of the contractually agreed gross payments, including the notional amount of the transaction.

(2) Credit institutions may disregard the interest rate risk from payment legs with a remaining maturity of less than one year for the purposes of calculating exposure values.

(3) Transactions that consist of two payment legs that are denominated in the same currency, including interest rate swaps, may be treated as a single aggregate transaction.

§ 222. Mapping transactions with a linear risk profile to risk positions

(1) Transactions with a linear risk profile with equities or equity indices, gold, other precious metals or other commodities as the underlying financial instruments are mapped to a risk position in the respective equity, equity index or commodity (including gold and other precious metals) and an interest rate risk position for the payment leg. If the payment leg is denominated in a foreign currency, it is additionally mapped to a risk position in the respective currency.

(2) Transactions with a linear risk profile with a debt instrument as the underlying instrument are mapped to an interest rate risk position for the debt instrument and another interest rate risk position for the payment leg. Transactions with a linear risk profile that stipulate the exchange of payment against payment, including foreign exchange forwards, are mapped to an interest rate risk position for each of the payment legs. If the underlying debt instrument is denominated in a foreign currency, the debt instrument is mapped to a risk position in this currency. If a payment leg is denominated in a foreign currency, the payment leg is again mapped to a risk position in this currency. The exposure value assigned to a foreign exchange basis swap transaction is zero.

§ 223. Sizes of risk positions from transactions with a linear risk profile

(1) The size of a risk position from a transaction with linear risk profile is the effective notional value (market price multiplied by quantity) of the underlying financial instruments (including commodities) converted to the credit institution's domestic currency, except for debt instruments.

(2) For debt instruments and for payment legs, the size of the risk position is the effective notional value of the outstanding gross payments, converted to the credit institution's domestic currency, multiplied by the modified duration of the debt instrument, or payment leg, respectively.

(3) The size of a risk position from a credit default swap is the notional value of the reference debt instrument multiplied by the remaining maturity of the credit default swap.

§ 224. Sizes of risk positions from transactions with a non-linear risk profile

(1) The size of a risk position from an OTC derivative with a non-linear risk profile, including options and swaptions, is equal to the delta equivalent effective notional value of the financial instrument that underlies the transaction, except in the case of an underlying debt instrument.

(2) The size of a risk position from an OTC derivative with a non-linear risk profile, including options and swaptions, of which the underlying is a debt instrument or a payment leg, is equal to the delta equivalent effective notional value of the financial instrument or payment leg multiplied by the modified duration of the debt instrument, or payment leg, respectively.

§ 225. Determining the sizes and signs of risk positions

(1) For the determination of risk positions, collateral received from a counterparty is to be treated as a claim on the counterparty under a derivative contract (long position) that is due today, while collateral posted is to be treated like an obligation to the counterparty (short position) that is due today.

(2) Credit institutions may use the following formulae to determine the sizes and signs of risk positions for all instruments other than debt instruments:

- 1) effective notional value; or
- 2) delta equivalent notional value calculated pursuant to the following formula:

delta equivalent notional value  ,

where

p_{ref} is the price of the underlying instrument, expressed in the reference currency;

V is the value of the financial instrument (in the case of an option this is the option price and in the case of a transaction with a linear risk profile this is the value of the underlying instrument itself). If V is denominated in a currency other than the reference currency, the derivative must be converted into the reference currency by multiplication with the relevant exchange rate;

p is the price of the underlying instrument, expressed in the same currency as V .

(3) Credit institutions may use the following formulae to determine the sizes and signs of risk positions for debt

instruments and the payment legs of all transactions:

- 1) effective notional value multiplied by the modified duration, or
- 2) delta equivalent in notional value multiplied by the modified duration, with the delta equivalent notional value calculated pursuant to the following formula:

delta equivalent notional value  ,

where

V is the value of the financial instrument (in the case of an option this is the option price and in the case of a transaction with a linear risk profile this is the value of the underlying instrument itself or of the payment leg, respectively). If V is denominated in a currency other than the reference currency, the derivative must be converted into the reference currency by multiplication with the relevant exchange rate;

r is the interest rate.

§ 226. Net risk positions of hedging sets

The risk positions are to be grouped into hedging sets. For each hedging set, the absolute value amount of the sum of the resulting risk positions is computed. This sum is termed the 'net risk position' and is calculated according to the following formula:

 ,

where

i = index designating transaction;

l = index designating collateral;

j is the index designating the hedging set category; risk positions of opposite sign may be offset to yield a net risk position on which the exposure measure is then based;

RPT_{ij} is the risk position from transaction i with respect to hedging set j ;

RPC_{lj} is the risk position from collateral l with respect to hedging set j .

§ 227. Bases of including risk positions in hedging sets

(1) For interest rate risk positions from money deposits received from the counterparty as collateral, from payment legs and from underlying debt instruments, to which according to section 284 a specific risk capital charge of 1.60% or less applies, there are six hedging sets for each currency, as set out in the table below. Hedging sets are defined by a combination of the criteria 'maturity' and 'referenced interest rates.'

	Government referenced interest rates	Non-government referenced interest rates
Maturity	One year or less	One year or less
Maturity	Over one year, not exceeding five years	Over one year, not exceeding five years
Maturity	Over 5 years	Over 5 years

(2) For interest rate risk positions from underlying debt instruments or payment legs for which the interest rate is linked to a reference interest rate that represents a general market interest level, the remaining maturity is the length of the time interval up to the next re-adjustment of the interest rate. In all other cases, remaining maturity is the remaining life of the underlying debt instrument or in the case of a payment leg, the remaining life of the transaction.

(3) One hedging set shall be formed for each issuer of a reference debt instrument that underlies a credit default swap.

(4) For interest rate risk positions from money deposits that are posted with a counterparty as collateral when that counterparty does not have debt obligations of low specific risk outstanding and from underlying debt instruments, to which according to section 284 a specific risk capital charge of more than 1.60% applies, there shall be one hedging

set for each issuer. When a payment leg emulates such a debt instrument, one hedging set shall also be formed for each issuer of the reference debt instrument. Credit institutions may assign risk positions that arise from debt instruments of a certain issuer, or from reference debt instruments of the same issuer that are emulated by payment legs, or that underlie a credit default swap, to the same hedging set.

(5) Underlying financial instruments other than debt instruments shall be assigned to the same respective hedging sets only if they are identical or similar instruments. The similarity of instruments shall be established as follows:

- 1) For equities, similar instruments are those of the same issuer. An equity index shall be treated as an instrument of another issuer.
- 2) For precious metals, similar instruments are those of the same metal. A precious metal index shall be treated as a separate precious metal.
- 3) For electric power, similar instruments are those delivery rights and obligations that refer to the same peak or off-peak load time interval within any 24-hour interval.
- 4) For commodities, similar instruments are those of the same commodity. A commodity index is treated as a separate commodity.

(6) Underlying instruments of OTC derivatives, as referred to in point 10 of the table in section 228 of this Decree, shall be assigned to separate individual hedging sets for each category of underlying instrument.

§ 228. Counterparty credit risk multipliers for different hedging set categories

Hedging set categories and the counterparty credit risk multipliers assigned to the hedging set categories are set out in the table below:

Hedging set categories	Counterparty credit risk multiplier (CCRM)
1. Interest rates	0.2%
2. Interest rates for risk positions from a reference debt instrument that underlies a credit default swap or a debt instrument to which a specific risk capital charge of 1.60%, or less, applies	0.3%
3. Interest rates for risk positions from a debt instrument or reference debt instrument to which a specific risk capital charge of more than 1.60% applies	0.6%
4. Exchange rates	2.5%
5. Electric power	4.0%
6. Gold	5.0%
7. Equities	7.0%
8. Precious metals (except gold)	8.5%
9. Other commodities (excluding precious metals and electric power)	10.0%
10. Underlying instruments of OTC derivatives that are not in any of the above categories	10.0%

§ 229. Internal procedures required in the case of the Standardised Method for calculating exposure values

(1) A credit institution shall have internal procedures to verify that, prior to including a transaction in a hedging set, the transaction meets the requirements set out in Sub-subdivision 8 of this Subdivision.

(2) A credit institution shall have internal procedures to verify that, prior to recognising the effect of collateral in its calculations under the procedure established in this Sub-subdivision, the collateral meets the legal certainty standards

set out in Subdivision 3 of Division 2 of this Chapter.

Sub-subdivision 7 **Internal Model Method for calculating exposure values**

§ 230. Using the Internal Model Method for calculating exposure values

(1) Subject to the approval of the Financial Supervision Authority referred to in subsection 209 (3), a credit institution may use the Internal Model Method to calculate the exposure value for the following groups of transactions:

- 1) derivatives specified in Sub-subdivision 2 of this Subdivision;
- 2) repurchase transactions, securities lending or borrowing transactions, and margin lending transactions.

(2) Long settlement transactions may be included in the groups specified in subsection (1) of this section, as well.

(3) Credit institutions may choose not to apply the Internal Model Method to exposures that are immaterial in size and risk.

(4) Subject to the approval of the Financial Supervision Authority, implementation of the Internal Model Method may be carried out sequentially for different types of transactions. During the period agreed with the Financial Supervision Authority, a credit institution may use the Mark-to-Market Method or the Standardised Method specified in Sub-subdivisions 4 and 6, respectively, to calculate exposure values.

(5) For all OTC derivative transactions and for long settlement transactions for which a credit institution has not obtained the approval to use the Internal Model Method, the credit institution shall use the method specified in Sub-subdivision 4 or 6. Combined use of these two methods is permitted on a permanent basis within a consolidation group, across different legal entities. Combined use of these two methods within a legal entity is only permitted in the case set out in subsection 215 (2).

(6) As regards the transactions for which a credit institution has obtained approval to use the Internal Model Method the credit institution shall not revert to the use of the methods in specified in Sub-subdivision 4 or 6 except for demonstrated good cause and subject to the prior written approval of the Financial Supervision Authority.

(7) If a credit institution ceases to comply with the requirements on using the Internal Model Method set out in this Sub-subdivision, it shall either present to the Financial Supervision Authority a plan for a timely return to compliance or demonstrate that the effect of non-compliance is immaterial.

§ 231. Calculating exposure values under the Internal Model Method

(1) The internal model shall specify the forecasting distribution for changes in the market value of the netting set attributable to changes in market variables, including interest rates and foreign exchange rates.

(2) The model shall then compute the exposure value for the netting set at each future date given the changes in the market variables. For margined counterparties, the model may also capture future collateral movements.

(3) Credit institutions may include eligible financial collateral as defined in section 108 in their forecasting distributions for changes in the market value of the netting set, if the quantitative, qualitative and data requirements for the Internal Model Method are met for the collateral.

(4) Under the Internal Model Method, the exposure value of a netting set shall be calculated by multiplying the effective expected positive exposure of the netting set by the scaling factor alpha (α), as follows:

$$\text{Exposure value} = \alpha \times \text{Effective EPE} ,$$

where α is the scaling factor set out in section 233;

Effective EPE is the effective expected positive exposure.

(5) To calculate exposure values, credit institutions may use a formula different from that set out in subsection (4) of this section, provided it yields a more conservative result for every counterparty.

§ 232. Calculating the effective expected positive exposure

(1) The effective expected positive exposure of a netting set shall be calculated as follows:

1) The expected exposure (EE) of the netting set shall be estimated as the average exposure at future date t , where the average is taken across possible future values of relevant market risk factors. The internal model estimates the expected exposures at a series of future dates (t_1, t_2, t_3, \dots), etc.

2) Effective expected exposure (Effective) EE shall be computed recursively pursuant to the following formula:



where

the current date is denoted as t_0 and effective EE_{t_0} equals current exposure.

3) The effective expected positive exposure of the netting set shall be calculated as the average effective expected exposure during the first year of future exposure. If all contracts in the netting set mature within less than one year, the effective expected positive exposure is the average of the expected exposures of all contracts in the netting set until all contracts in the netting set mature. The effective expected positive exposure shall be calculated according to the following formula:



where

the weights $\Delta t_k = t_k - t_{k-1}$ allow for the case when future exposure is calculated at dates that are not equally spaced over time.

(2) Expected exposure (EE) or peak exposure measures shall be calculated based on a distribution of exposures that accounts for the possible non-normality of the distribution of exposures.

§ 233. Alpha as the scaling factor for exposure values of netting sets

(1) The value of alpha to be used in the calculation of exposure values is 1.4.

(2) The Financial Supervision Authority may require a credit institution to use a higher alpha than that set out in subsection (1) of this section.

(3) Credit institutions may use their own estimates of alpha in calculating the exposure values of netting sets. The use of a credit institution's own estimates of alpha shall be subject to a floor of 1.2. An estimate of alpha shall equal the ratio of internal capital from a full simulation of a counterparty credit risk exposure across counterparties (numerator) and internal capital based on expected positive exposure (denominator). In the denominator, the expected positive exposure shall be used as if it were a fixed outstanding amount.

(4) A credit institution shall ensure that the numerator and denominator of alpha are computed in compliance with the credit institution's internal modelling methodology, parameter specifications and portfolio composition. The methodology of estimating internal capital in the calculation of alpha shall be well documented and be subject to independent validation. Credit institutions shall review their estimates on at least a quarterly basis, and more frequently when the composition of the portfolio varies over time. Credit institutions shall also assess the risk of inaccuracies of the internal model, i.e. model risk.

(5) Credit institutions shall inform the Financial Supervision Authority of relying on the option set out in subsection

(3) of this section and demonstrate that the simulation of a counterparty credit risk exposure used for determining the internal estimates of alpha capture material sources of stochastic dependency of distribution of market values of transactions or of portfolios of transactions across counterparties.

(6) Potential increases in volatility or correlation of market risk and a counterparty credit risk in an economic downturn shall be taken into account in determining internal estimates of alpha, if appropriate.

§ 234. Recognition of margin agreements in calculating the expected positive exposures of netting sets

(1) If the netting set is subject to a margin agreement, credit institutions may use the effective expected positive exposure as the expected positive exposure of the netting set without taking into account the margin agreement, or recognise the margin agreement according to one of the following methods:

1) The expected positive exposure value is equal to the threshold, if positive, under the margin agreement plus an addition that reflects the potential increase in exposure over the margin period of risk. For netting sets consisting only of repurchase and similar transactions the minimum margin period shall be five days, subject to daily remargining and daily mark-to-market. For other transactions the minimum margin period shall be 10 days.

(2) If the model captures the effects of margining when estimating the expected exposure of the netting set, the model's EE measure may be used directly in the formula set out in clause 232 (1) 2) subject to the approval of the Financial Supervision Authority.

§ 235. Minimum requirements for EPE models

A credit institution's EPE model shall meet the operational requirements established in sections 236-240.

§ 236. Counterparty credit risk control

(1) Credit institutions shall have a control unit that is responsible for the design and implementation of its counterparty credit risk management system, including the initial and on-going validation of the model. This unit shall control input data integrity and produce and analyse reports on the output of the credit institution's risk measurement model, including an evaluation of the relationship between measures of risk exposure and credit and trading limits.

(2) The unit responsible for the counterparty credit risk control shall be independent from units responsible for originating, renewing or trading exposures and free from any other undue influence.

(3) The unit responsible for the counterparty credit risk control shall be adequately staffed to fulfil its function and it shall report directly to the senior management of the credit institution. The work of this unit shall be closely integrated into the day-to-day credit risk management process of the credit institution and its output shall, accordingly, be an integral part of the process of planning, monitoring and controlling the credit institution's credit and overall risk profile.

(4) Credit institutions shall have counterparty credit risk management policies, processes and systems that are conceptually sound and implemented with integrity. A sound counterparty credit risk management framework shall include the identification, measurement, management, approval and internal reporting of the counterparty credit risk.

(5) A credit institution's risk management policies shall take account of market, liquidity, and legal and operational risks that can be associated with a counterparty credit risk. A credit institution shall not undertake business with a counterparty without assessing its creditworthiness and shall take due account of settlement and pre-settlement credit risk. These risks shall be managed as comprehensively as practicable at the counterparty level, aggregating counterparty credit risk exposures with other credit exposures.

(6) A credit institution's senior management shall be actively involved in the counterparty credit risk control process and shall ensure that adequate financial and human resources are devoted to that process. The senior management shall be aware of the limitations and assumptions of the model used and the impact these can have on the reliability of the

model's output. The senior management shall also consider the uncertainties of the market environment and operational issues of the credit institution and be aware of how these are reflected in the model.

(7) The daily reports prepared on a credit institution's exposures to a counterparty credit risk shall be reviewed by a level of management with sufficient seniority and authority to enforce both reductions of positions taken by individual credit managers or traders and reductions in the credit institution's overall CCR exposure.

(8) A credit institution's counterparty credit risk management system shall be used in conjunction with internal credit and trading limits. Credit and trading limits shall be related to the credit institution's risk measurement model in a manner that is consistent over time and that is well understood by credit managers, traders and the senior management.

(9) A credit institution's measurement of a counterparty credit risk shall include measuring daily and intra-day usage of credit lines. Credit institutions shall measure current exposure with and without collateral. At the portfolio and counterparty level, credit institutions shall calculate and monitor peak exposure or PFE at the confidence interval chosen by the credit institution. A credit institution shall take account of large or concentrated positions, including by groups of related counterparties, by industry or by market, etc.

(10) Credit institutions shall have a routine and rigorous program of stress testing in place as a supplement to the counterparty credit risk analysis based on the day-to-day output of the credit institution's risk measurement model. The results of this stress testing shall be reviewed periodically by the senior management and shall be reflected in the counterparty credit risk policies and limits set by the senior management and the board of directors. Where stress tests reveal a particular vulnerability to a given set of circumstances, prompt steps shall be taken to manage those risks appropriately.

(11) Credit institutions shall have a routine in place for ensuring compliance with a documented set of internal policies, controls and procedures concerning the operation of the counterparty credit risk management system. A credit institution's counterparty credit risk management system shall be adequately documented and shall provide an explanation of the methodology used to measure the counterparty credit risk.

(12) A credit institution shall conduct an independent review of its counterparty credit risk management system regularly through its own internal auditing process. This review shall include the activities of the independent counterparty credit risk control unit. A review of the overall counterparty credit risk management process shall take place at regular intervals and shall specifically address, at a minimum:

- 1) the adequacy of the documentation of the counterparty credit risk management system and process;
- 2) the functioning of the counterparty credit risk control unit;
- 3) the integration of counterparty credit risk estimates into daily risk management;
- 4) the approval process for risk pricing models and valuation systems used by front and back-office personnel;
- 5) the validation of any significant change in the counterparty credit risk measurement process;
- 6) the scope of a counterparty credit risk captured by the risk measurement model;
- 7) the integrity of the management information system;
- 8) the consistency and timeliness of counterparty credit risk data and the reliability and independence of the data sources;
- 9) the verification of the consistency, timeliness and reliability of data sources used to run models, including the reliability and independence of such data sources;
- 10) the accuracy and appropriateness of volatility and correlation assumptions;
- 11) the accuracy of valuation and risk transformation calculations;
- 12) the verification of the model's accuracy through frequent back-testing.

§ 237. Use test

(1) The distribution of exposures generated by the model used to calculate effective expected positive exposures shall be closely integrated into the day-to-day counterparty credit risk management process of a credit institution. The estimated distribution of exposures shall be used in the credit approval, internal capital allocation and corporate governance of the credit institution.

(2) A credit institution shall preserve relevant data and information about the performance of the model used to calculate effective expected positive exposures and shall be able to demonstrate that it has been using an internal model to calculate the distributions of exposures upon which the calculation of expected positive exposures is based that meets, broadly, the minimum requirements set out in this Sub-subdivision for at least one year prior to the submission of the application to the Financial Supervision Authority.

(3) The model used to generate a distribution of exposures to a counterparty credit risk shall be part of a counterparty credit risk management framework that includes the identification, measurement, management, approval and internal reporting of a counterparty credit risk.

(4) The counterparty credit risk management framework into which the model used to estimate the distribution of expected exposures is integrated shall include, *inter alia*, the measurement of the interaction of exposures to the credit risk and counterparty credit risk, including the estimated usage of undrawn credit lines.

(5) The use test is satisfied if a credit institution also uses the estimated distribution of exposures generated by the model used in the credit institution's counterparty credit risk management framework for the purpose of estimating other counterparty credit risk measures, such as peak exposure or PFE, in addition to the expected positive exposure.

(6) In addition to estimating the distribution of expected exposures the counterparty credit risk management framework shall include the measuring and monitoring of current exposures to counterparty credit risk both with and without collateral, as appropriate.

(7) The counterparty credit risk management framework of a credit institution shall have the capability to estimate expected exposures on a daily basis, unless the credit institution demonstrates to the Financial Supervision Authority that its exposures to a counterparty credit risk warrant less frequent calculation. Credit institutions shall compute expected exposures along a time profile of forecasting horizons that adequately reflects the time structure of future cash flow and maturity of the contracts and in a manner that is consistent with the materiality and composition of the exposures.

(8) Exposures shall be measured, monitored and controlled over the life of all contracts in the netting set, i.e. not just over the one-year horizon. Credit institutions shall have procedures in place to identify and control the risks for counterparties where the exposure rises beyond the one-year horizon. The forecast increase in the exposure shall be an input into the credit institution's internal capital model.

§ 238. Stress testing

(1) Credit institutions shall have in place reliable stress testing processes for use in the assessment of capital adequacy for a counterparty credit risk. The results of stress testing shall be compared with the measure of expected positive exposure and considered by the credit institution as part of the credit institution's assessment process. Stress testing shall also involve identifying possible events or future changes in economic conditions that could have unfavourable effects on a credit institution's exposures to a counterparty credit risk, as well as an assessment of the credit institution's ability to withstand such changes.

(2) A credit institution shall stress test its CCR exposures, including jointly stressing market and credit risk factors. Stress tests of a counterparty credit risk shall consider the concentration risk (to a single counterparty or groups of counterparties), correlation risk across market and credit risk, and the risk that liquidating the counterparty's positions could bring about changes in the market. Stress tests shall also consider the impact on the credit institution's own positions of such changes in the market and integrate that impact in its assessment of a counterparty credit risk.

§ 239. Correlation risk (wrong-way risk)

(1) In using their internal models, credit institutions shall give due consideration to exposures that give rise to a significant degree of general wrong-way risk.

(2) Credit institutions shall have procedures in place to identify, monitor and control cases of specific wrong-way risk, beginning at the inception of a transaction and continuing through the life of the transaction.

§ 240. Integrity of the modelling process

(1) A model shall reflect transaction terms and specifications in a timely, complete, and conservative fashion. Such terms shall include at least contract notional amounts, maturity, reference assets, margining arrangements and netting arrangements. The terms and specifications shall be maintained in a database that is subject to formal and periodic audit. The process for recognising netting arrangements shall require signoff by legal staff to verify the legal enforceability of netting and be entered into the database by an independent unit. The transmission of transaction terms and specifications data to the model shall also be subject to internal audit, and formal reconciliation processes shall be in place between the model and source data systems to verify on an ongoing basis that transaction terms and specifications are being reflected in EPE correctly or at least conservatively.

(2) The model shall employ current market data to compute current exposures. When using historical data to estimate volatility and correlations, at least three years of historical data shall be used which shall be updated quarterly or more frequently if market conditions so require. These data shall cover a full range of economic conditions, such as a full business cycle. A unit independent from the business unit shall validate the price supplied by the business unit. The data shall be acquired independently of the lines of business, fed into the model in a timely and complete fashion, and maintained in a database that is subject to formal and periodic audit. A credit institution shall also have a well-developed data integrity verification process to clean the data of erroneous and/or anomalous observations. To the extent that the model relies on proxy market data, including, for new products, where three years of historical data may not be available, internal policies shall identify suitable proxies and the credit institution shall demonstrate empirically that the proxy provides a conservative representation of the underlying risk under adverse market conditions. If the model includes the effect of collateral on changes in the market value of the netting set, the credit institution shall have adequate historical data to use the volatility of the collateral in the model.

(3) The model shall be subject to a validation process. The process shall be clearly articulated in credit institutions' policies and procedures. The validation process shall specify the kind of testing needed to ensure model integrity and identify conditions under which assumptions are violated and may result in an understatement of EPE. The validation process shall include a review of the comprehensiveness of the model.

(4) A credit institution shall monitor the appropriate risks and have processes in place to adjust its estimation of EPE when those risks become significant. This includes the following:

- 1) the credit institution shall identify and manage its exposures to specific wrong-way risk;
- 2) for exposures with a rising risk profile after one year, the credit institution shall compare on a regular basis the estimate of EPE over one year with EPE over the life of the exposure;
- 3) for exposures with a residual maturity below one year, the credit institution shall compare on a regular basis the replacement cost (current exposure) and the realised exposure profile, and/or store data that would allow such a comparison.

(5) A credit institution shall have internal procedures to verify that, prior to including a transaction in a netting set, the transaction is included in a legally enforceable netting contract that meets the requirements set out in Sub-subdivision 8 of this Subdivision.

(6) A credit institution that makes use of collateral to mitigate its counterparty credit risk shall have internal procedures to verify that, prior to recognising the effect of collateral in its calculations, the collateral meets the legal certainty standards established in Subdivision 3 of Division 2.

§ 241. Validation requirements for EPE models

A credit institution's EPE model shall meet the following validation requirements:

- 1) the qualitative validation requirements established in section 307 of this Decree;

- 2) interest rates, foreign exchange rates, equity prices, commodities, and other market risk factors shall be forecast over long time horizons for measuring exposures to a counterparty credit risk. The performance of the forecasting model for market risk factors shall be validated over a long time horizon;
- 3) the pricing models used to calculate exposures to a counterparty credit risk for a given scenario of future shocks to market risk factors shall be tested as part of the model validation process. Pricing models for options shall account for the nonlinearity of option value with respect to market risk factors;
- 4) the EPE model shall capture transaction-specific information in order to aggregate exposures at the level of the netting set. A credit institution shall verify that transactions are assigned to the appropriate netting set within the model;
- 5) the EPE model shall also include transaction-specific information to capture the effects of margining. It shall take into account both the current amount of margin and margin that would be passed between counterparties in the future. Such a model shall account for the nature of margin agreements (unilateral or bilateral), the frequency of margin calls, the margin period of risk, the minimum threshold of unmarginated exposure the credit institution is willing to accept, and the minimum transfer amount. Such a model shall either model the mark-to-market change in the value of collateral posted or apply the rules set out in Subdivision 3 of Division 2 of this Chapter;
- 6) static, historical back-testing on representative counterparty portfolios shall be part of the model validation process. At regular intervals, a credit institution shall conduct such back-testing on a number of representative counterparty portfolios (actual or hypothetical). These representative portfolios shall be chosen based on their sensitivity to the material risk factors and correlations to which the credit institution is exposed.
- 7) If back-testing indicates that the model is not sufficiently accurate, the Financial Supervision Authority may revoke the model approval or impose a deadline for improving the model. In the case of inaccuracy of the model, the Financial Supervision Authority may also require additional own funds to be held by the credit institution in question.

Sub-subdivision 8 Contractual netting

§ 242. Contractual netting

- (1) For the purposes of this Sub-subdivision, "counterparty" means any entity (including natural persons) that has the power to conclude a contractual netting agreement.
- (2) For the purposes of this Sub-subdivision, "contractual netting agreement" (hereinafter "netting agreement") means a written bilateral agreement between a credit institution and a counterparty which creates a single legal obligation covering all included bilateral master agreements concerning one product category.
- (3) For the purposes of this Sub-subdivision, "contractual cross-product netting agreement" (hereinafter "cross-product netting agreement") means a written bilateral agreement between a credit institution and a counterparty which creates a single legal obligation covering all included bilateral master agreements and transactions belonging to different product categories.
- (4) For the purposes of cross-product netting, the following are considered different product categories:
 - 1) repurchase transactions, reverse repurchase transactions, securities and commodities lending and borrowing transactions;
 - 2) margin lending transactions, and
 - 3) derivatives specified in Sub-subdivision 2 of this Subdivision.

§ 243. Recognition of netting agreements in calculating exposure values

- (1) In calculating exposure values, the following types of netting agreements and cross-product netting agreements may be recognised as risk-reducing, provided they meet the conditions set out in subsection (2) of this section:
 - 1) bilateral contracts for novation between a credit institution and its counterparty under which mutual claims and obligations are automatically amalgamated in such a way that this novation fixes one single net amount each time novation applies and thus creates a legally binding, single new contract extinguishing former contracts;

- 2) other bilateral agreements between a credit institution and its counterparty, and
- 3) cross-product netting agreements for credit institutions that use the Internal Model Method specified in Sub-subdivision 7 of this Subdivision, for transactions falling under the scope of that method, except netting agreements made with entities in the same consolidation group as the credit institution.

(2) Conditions of recognising netting agreements and cross-product netting agreements are the following:

- 1) A credit institution has a contractual netting agreement with its counterparty which creates a single legal obligation, covering all included transactions, such that, in the event of a counterparty's failure to perform owing to default, bankruptcy, liquidation or any other similar circumstance, the credit institution will have a claim to receive or an obligation to pay only the net sum of the positive and negative mark-to-market values of included individual transactions.
- 2) The credit institution has procedures in place to ensure that the legal enforceability of its netting agreements and cross-product netting agreements is kept under periodic review in the light of possible changes in the relevant laws.
- 3) The credit institution maintains all required documentation concerning netting agreements and cross-product netting agreements in its files.
- 4) The effects of netting agreements and cross-product netting agreements are factored into the credit institution's measurement of each counterparty's aggregate credit risk exposure and the credit institution manages its counterparty credit risk on such a basis.
- 5) Credit risk to each counterparty is aggregated to arrive at a single legal exposure across transactions. This aggregation shall be factored into credit limit purposes and internal capital purposes.

(3) A credit institution shall submit to the Financial Supervision Authority a written legal opinion to the effect that, in the event of a legal challenge, the relevant courts and administrative authorities would, in the cases described in clause 1) of subsection (2) of this section, find that under the netting agreements and cross-product netting agreements the credit institution's claims and obligations would be limited to the net sum of the transactions included in the netting agreements, under:

- 1) the law of the jurisdiction in which the counterparty is incorporated and, if a foreign branch of an undertaking is involved, also under the law of the jurisdiction in which the branch is located;
- 2) the law that governs the individual transactions included in the netting agreement or cross-product netting agreement in question;
- 3) the law that governs any contract or agreement necessary to effect the netting agreements or cross-product netting agreements.

(4) In addition to the requirements set out in subsections (2) and (3) of this section, cross-product netting agreements shall meet the following criteria:

- 1) the net sum referred to in clause 1) of subsection (2) of this section shall be the net sum of the positive and negative closeout values of any included individual bilateral master agreement and of the positive and negative mark-to-market value of the individual transactions (the "cross-product net amount");
- 2) the written legal opinions referred to in subsection (3) of this section shall address the validity and enforceability of the entire cross-product netting agreement under its terms and the impact of the netting agreement on the material provisions of each included individual bilateral master agreement;
- 3) the credit institution shall have procedures in place under clause 2) of subsection (2) of this section to verify that any transaction which is to be included in a netting set is covered by a legal opinion;
- 4) the credit institution shall continue to comply with the requirements for cross-product netting agreements established in this Sub-subdivision and the requirements of Subdivision 6 of Division 2 of this Chapter for the recognition of credit risk mitigation with respect to each included individual bilateral master agreement and transaction.

(5) No netting agreement or cross-product netting agreement containing a provision which permits a non-defaulting counterparty to make limited payments only, or no payments at all, to the defaulter, even if the defaulter is a net creditor (a "walk-away" clause), may be recognised as risk-reducing.

(6) The Financial Supervision Authority may forbid the recognition of netting agreements or cross-product netting agreements as risk-reducing, if the conditions established in this section are not met or if consultations concerning the legal validity of netting agreements with other competent authorities reveal that the validity of the agreements is not sufficiently ensured under the law of each of the relevant jurisdictions.

§ 244. Recognition of netting agreements and cross-product netting agreements for the purpose of measuring the counterparty credit risk under the Standardised Method and the Internal Model Method

In the case of the Standardised Method set out in Sub-subdivision 6 of this Subdivision and the Internal Model Method set out in Sub-subdivision 7 of this Subdivision, netting agreements and cross-product netting agreements shall be recognised pursuant to the procedure established in these Sub-subdivisions.

§ 245. Recognition of contracts for novation for the purpose of measuring the counterparty credit risk under the Mark-to-Market Method and the Original Exposure Method

(1) In the case of the Mark-to-Market Method set out in Sub-subdivision 4 of this Subdivision, the net amounts fixed by contracts for novation shall serve as the basis for computing the replacement cost and the potential future credit exposure.

(2) Where a credit institution applies the Original Exposure Method set out in Sub-subdivision 5 of this Subdivision, the net amounts fixed by contracts for novation shall serve as the basis for computing the notional principal amounts of instruments.

§ 246. Recognition of other netting agreements for the purpose of measuring the counterparty credit risk under the Mark-to-Market Method

(1) Where a credit institution applies the Mark-to-Market Method set out in Sub-subdivision 4 of this Subdivision, the current replacement cost for the transactions included in a netting agreement may be obtained by taking account of the actual hypothetical net replacement cost which results from the agreement. In the case where netting leads to a net obligation for the credit institution calculating the net replacement cost, the current replacement cost is calculated as 0 (zero).

(2) The figure for potential future credit exposure for all transactions included in a netting agreement shall be reduced according to the following formula:

$$PCE_{red} = 0,4 * PCE_{gross} + 0,6 * NGR * PCE_{gross},$$

where

PCE_{red} is the reduced figure for potential future credit exposure for all transactions with a given counterparty which are included in a legally valid bilateral netting agreement;

PCE_{gross} is the sum of the figures for potential future credit exposure for all transactions with a given counterparty which are included in a legally valid bilateral netting agreement and are calculated by multiplying their notional principal amounts by the percentages set out in subsection 217 (1);

NGR is a net-to-gross ratio, computed either:

1) by way of a separate calculation where the net replacement cost for all transactions included in a legally valid bilateral netting agreement with a given counterparty is divided by the gross replacement cost for all contracts included in a legally valid bilateral netting agreement with that counterparty, or

2) by way of an aggregate calculation where the sum of the net replacement cost calculated on a bilateral basis for all counterparties taking into account the contracts included in legally valid netting agreements is divided by the gross replacement cost for all contracts included in legally valid netting agreements.

The method chosen for calculating NGR shall be used consistently.

(3) For the purposes of reducing the potential future credit exposure pursuant to the procedure established in

subsection (2) of this section, perfectly matching transactions included in the netting agreement may be taken into account as a single contract with a notional principal equivalent to the net receipts.

(4) Perfectly matching transactions, within the meaning of this subsection and section 247, are foreign-exchange forwards or similar transactions in the case of which cash flow falls due on the same value date and fully or partly in the same currency.

§ 247. Recognition of other netting agreements for the purpose of measuring the counterparty credit risk under the Original Exposure Method

(1) Where a credit institution applies the Original Exposure Method set out in Sub-subdivision 5 of this Subdivision, transactions meeting the criteria indicated in subsection 246 (1) which are fully included in the netting agreement may be taken into account as a single contract with a notional principal equivalent to the net receipts of the transactions. The percentages established in subsection 218 (1) shall be applied to the perfectly matching transactions included in the netting agreement.

(2) To other transactions included in netting agreements the following percentages shall be applied in the calculation of exposure values:

Maturity	Interest-rate-related derivatives	Derivatives related to foreign exchange rates and gold
One year or less	0.35%	1.5%
Over one year, not exceeding two years	0.75%	3.75%
Additional allowance for each additional year	0.75%	2.25%

Division 3 Calculating capital requirements for options

§ 248. Calculating capital requirements for options

(1) Capital requirements for options, warrants and instruments similar to options shall be calculated pursuant to the procedure established in this Division.

(2) Capital requirements calculated in accordance with this Division shall be added to capital requirements calculated against foreign-exchange risk, interest rate risk, equity position risk or commodities risk based on the underlying assets of the option.

(3) Options risk consists of the following elements:

- 1) delta risk which represents the sensitivity of an option price to variation in the market value of the underlying;
- 2) gamma risk which represents variation in delta due to a change in the underlying's market value;
- 3) vega risk which represents the sensitivity of an option price to the volatility of the price of the underlying;
- 4) rho risk which represents the sensitivity of an option price to changes in interest rates;
- 5) theta risk which represents the impact that the passage of time has on the value of an option;
- 6) dividend risk which represents the risk of changes in dividends upon which the value of an option is based.

(4) Credit institutions may net positions in identical options.

(5) Capital requirements against options risk shall be calculated using either the Simplified Method or the Delta-Plus Method. A credit institution may calculate capital requirements using the Simplified Method only if its trading book includes only purchased options. In order to use a method other than the Simplified Method or the Delta-Plus Method,

a credit institution shall apply for the prior written approval of the Financial Supervision Authority.

(6) If, in addition to the risks included in the Delta-Plus Method, rho, theta and dividend risks are also associated with options, capital requirements shall be calculated against such risks as well.

§ 249. Simplified Method for calculating capital requirements for options

(1) According to the type of the underlying to which an option refers, the capital requirements are as follows:

- 1) in the case of options associated with foreign currencies, the capital requirement is 10% of the value of the underlying to which the option refers;
- 2) in the case of options associated with debt instruments, the capital requirement is the sum of the capital requirements against specific risk and general risk provided for the debt instrument as set out in section 282. The capital requirement for general risk is 8%;
- 3) in the case of options associated with interest rate and interest rate indices, the capital requirement is 8% of the value of the underlying to which the option refers;
- 4) in the case of options associated with equities, the capital requirement is the sum of the capital requirements against specific risk and general risk provided for the equity as set out in sections 293 and 294;
- 5) in the case of options associated with commodities, the capital requirement is 15% of the underlyings to which the option refers.

(2) In the case of covered or naked options that are purchased, the capital requirement shall be the lower of the market value of the underlyings to which the option refers multiplied by the percentage specified in subsection (1) of this section and the market value of the option.

(3) In the case of covered options that are purchased, the capital requirement shall be the market value of the underlyings to which the option refers multiplied by the percentage specified in subsection (1) of this section, less the amount by which the option is in the money.

(4) A purchased put option is in the money if the strike price of the option exceeds the market price of the underlying (in the case of options with a residual maturity of up to six months) or the future price of the underlying (in the case of options with a residual maturity of more than six months).

(5) A purchased call option is in the money if the strike price of the option is less than the market price of the underlying (in the case of options with a residual maturity of up to six months) or the future price of the underlying (in the case of options with a residual maturity exceeding six months).

(6) In order to calculate the amount to the extent of which an option is in-the-money, the number of units of underlying assets shall be multiplied by the difference between the strike price of the option and the market price of the underlying assets or future price of the underlying assets.

(7) If a credit institution is unable to obtain reliable information concerning the future price of underlyings, the difference between the market price and the future price of the underlyings shall be deemed to be zero in the calculation of the capital requirement.

§ 250. Using the Delta-Plus Method for the purpose of calculating capital requirements for options

(1) If the Delta-Plus Method is used, the capital requirement is the sum of capital requirements calculated against delta, gamma and vega risks pursuant to sections 251-254.

(2) In order to calculate delta, gamma and vega, the method used for supervision purposes by the exchange concerned shall be used in the case of exchange-traded options. If this is impossible, and in the case of OTC options, an internal model approved by the Financial Supervision Authority shall be used.

§ 251. Delta risk

(1) In order to calculate the delta-weighted value of underlyings, the value of the underlyings to which the option refers shall be multiplied by its delta.

(2) The delta-weighted values of underlyings shall be included in the risk calculations described in Divisions 4, 5 and 6 of this Chapter on the basis of the risk relating to the underlyings to which the options refer as follows:

- 1) if the underlyings of options are debt instruments, the delta-weighted value of the underlyings shall be included in the calculation of the interest rate risk set out in Sub-subdivision 2 of Subdivision 2 of Division 6 of this Chapter;
- 2) if the underlyings of options are equities, the delta-weighted value of the underlyings shall be included in the calculation of equity position risk set out in Sub-subdivision 3 of Subdivision 2 of Division 6 of this Chapter;
- 3) if the underlyings of options are commodities, the delta-weighted value of the underlyings shall be included in the calculation of commodities risk set out in Division 5 of this Chapter;
- 4) if the underlyings of options are foreign currency or gold in bullion form traded on international markets, the delta-weighted value of the underlyings shall be included in the calculation of foreign-exchange risk set out in Division 4 of this Chapter.

§ 252. Options with interest rates or debt instruments as underlyings

(1) Options with interest rates or debt instruments as underlyings shall be divided into two positions in a manner similar to that provided for in Subdivision 2 of Division 6 of this Chapter as follows:

- 1) the position whose maturity date is the date of entry into force of the underlying contract;
- 2) the position whose maturity date is the date of maturity of the underlying contract.

(2) A purchased call option and a sold put option shall be treated as a combination of a delta-weighted long position whose maturity is equal to the maturity of the underlying contract and a delta-weighted short position whose maturity is equal to the maturity of the option.

(3) A sold call option and a purchased put option shall be treated as a combination of a delta-weighted short position whose maturity is equal to the maturity of the underlying contract and a delta-weighted long position whose maturity is equal to the maturity date of the option.

(4) Options whose underlyings are floating rate instruments with caps and floors shall be treated as a combination of floating rate instruments and a series of European options.

§ 253. Gamma risk

(1) The capital requirement for an option's position against gamma risk or "gamma impact" shall be calculated pursuant to the following formula:

$$\text{Gamma impact} = 1/2 \Delta \hat{\epsilon} n \hat{\epsilon} \text{ gamma } \hat{\epsilon} VU^2,$$

where

n is the number of units of underlyings;

VU is the variation in the market value of the underlyings.

(2) Variation in the market value of the underlyings (VU) shall be calculated as follows:

- 1) in the case of interest rate options with debt instruments as underlyings, the market value of the debt instruments shall be multiplied by the appropriate risk weighting specified in the column "Weighting" of the table set out in subsection 288 (2);
- 2) in the case of interest rate options, the contractual value of the position calculated pursuant to subsection 272 (2) shall be multiplied by the interest rate change specified in the column "Assumed interest rate change" of the table set out in subsection 288 (2);
- 3) in the case of options on equities, the market value of the underlyings shall be multiplied by 8%;

- 4) in the case of options with foreign exchange or gold in bullion as the underlyings, the market value of the underlyings shall be multiplied by 8%;
 - 5) in the case of options on commodities, the market value of the underlyings shall be multiplied by 15%.
- (3) When calculating the capital requirement for gamma risk on options, the following positions are treated as the same underlyings:

- 1) debt instruments which belong to the same maturity band according to the table set out in subsection 288 (2);
 - 2) equities issued by persons registered in the same country;
 - 3) each foreign currency separately and gold in bullion form traded on international markets;
 - 4) each individual commodity, taking account of the conditions set out in subsection 260 (1).
- (4) The overall capital requirement of a credit institution for gamma risk shall be calculated as follows:
- 1) the gamma impacts of options are calculated for each underlying separately;
 - 2) the gamma impacts of options are totalled taking account of the signs by each underlying separately and this results in a net gamma impact for the options of each underlying;
 - 3) the negative net gamma impacts of all options are totalled.

§ 254. Vega risk

(1) The capital requirement for an option's position against vega risk or "vega impact" shall be calculated pursuant to the following formula:

$$\text{Vega impact} = n \hat{\text{vega}} / 4 \hat{\sigma},$$

where

n is the number of units of underlyings;
 σ is the volatility of the market value of the underlying.

- (2) The overall capital requirement of a credit institution for vega risk shall be calculated as follows:
- 1) the vega impacts of options are calculated for each underlying separately; The underlyings shall be determined according to the principles established in 253 (3);
 - 2) the vega impacts of options are totalled taking account of the signs by each underlying separately and this results in a net vega impact for the options of each underlying;
 - 3) the absolute values of the net vega impacts of all options are totalled.

Division 4

Capital requirement for foreign-exchange risk

§ 255. Capital requirement for foreign-exchange risk

- (1) The capital requirement for foreign-exchange risk shall be 8% of the overall net open currency position calculated pursuant to section 258. The capital requirement for foreign-exchange risk shall not be calculated unless the overall net open currency position exceeds 2% of the net own funds calculated pursuant to subsection 8 (2).
- (2) With the prior written approval of the Financial Supervision Authority, lower capital requirements may be provided against positions in correlated currencies. The capital requirement for the covered part of a net position in two correlated currencies shall be 4%. The uncovered part of a net position in two correlated currencies shall be included, as the net short or the net long open position, in the calculation of the overall net open currency position in accordance with sections 226 and 258.
- (3) A pair of currencies may be deemed to be closely correlated only if the likelihood of a loss occurring on equal and opposite positions in such currencies over 10 consecutive working days, which is 4% or less of the value of the

matched position in question, has a probability of at least 99%, when an observation period of three years is used, or 95%, when an observation period of five years is used. The likelihood of a loss is calculated on the basis of daily exchange-rate data.

§ 256. General principles of calculating net open foreign-exchange positions

- (1) In the calculation of a net open foreign-exchange position, all on and off-balance-sheet assets and liabilities affected by changes in exchange rates shall be taken into account. Gold in bullion form which is traded on international markets shall be treated in a manner similar to foreign currencies. The Estonian kroon and the euro shall not be treated as foreign currencies.
- (2) Net open position shall be calculated separately for each currency. Where shares and units of CIUs are not subject to the treatment set out in subsections 257 (3)-(5), these investments shall be deemed to be a separate foreign-exchange position irrespective of the currencies in which the units are listed.
- (3) In the calculation of net open foreign-exchange positions, composite currencies shall be broken down into the component currencies according to the quotas in force.
- (4) For the purposes of foreign-exchange risk, a net open foreign-exchange position shall be deemed to be a short position if liability items denominated in a given currency exceed asset items denominated in the same currency, and a long position if asset items denominated in a given currency exceed liability items denominated in the same currency.
- (5) With the prior written approval of the Financial Supervision Authority, any currencies which are subject to legally binding intergovernmental agreements may be treated as a single currency.
- (6) Positions already deducted in the calculation of own funds shall not be included in the calculation of a net open foreign-exchange position.
- (7) Subject to the prior written approval of the Financial Supervision Authority, positions which are of a non-trading nature and which are deliberately taken in order to hedge against the adverse effect of the exchange rate on capital adequacy (structural positions) may be excluded from the calculation of net open foreign-exchange positions.

§ 257. Net open foreign-exchange positions

- (1) A net open foreign-exchange position consists of the following components:
 - 1) the net spot position (all asset items less all liability items in the currency in question);
 - 2) the net forward position (all amounts to be received less all amounts to be paid in a given currency under forward exchange transactions, including futures and forward positions in swaps not included in the spot position);
 - 3) guarantees in the same currency and similar instruments that are certain to be called;
 - 4) the delta-weighted net value of the foreign-currency options. The delta-weighted net value shall be calculated pursuant to Division 3 of this Chapter;
 - 5) the market value of other options affected by changes in the exchange rate of the currency in question, excluding foreign-currency and gold options.
- (2) Holdings in foreign credit and financial institutions which have not been deducted in the calculation of own funds pursuant to section 75 of the Credit Institutions Act shall be taken into account in the calculation of net open foreign-exchange positions in the currency in which the own capital of the given credit or financial institutions is fixed.
- (3) As regards shares and units of CIUs, the actual foreign exchange positions arising from investments made by the CIUs may be included in the calculation of the net open foreign-exchange positions.
- (4) In determining the foreign-exchange positions arising from investments made by the CIUs, credit institutions may rely on information from third parties, provided that the accuracy of calculating capital requirements is ensured.

(5) If a credit institution does not have reliable data about investments made by a CIU, then in the calculation of the foreign-exchange positions in the investments it shall be assumed that the CIU has invested up to the maximum extent allowed, incl. up to the maximum extent allowed for a given currency. The resulting estimated foreign-exchange position shall be treated as a separate foreign-exchange position similarly to gold. Where a credit institution is aware of whether the position is a short or long position, the CIU's open net foreign-exchange position shall be added to the credit institution's long or short foreign-exchange position, as appropriate. There shall be no netting between such positions prior to the calculation.

§ 258. Calculation of overall net open foreign-exchange positions

(1) In order to calculate the overall net open foreign-exchange position, the net long and short open positions in each currency which are converted into Estonian kroons shall be totalled separately. The net position in gold (as an absolute value) shall then be added to the higher absolute value of these two totals.

(2) The net open foreign-exchange positions shall be converted into Estonian kroons according to the exchange rate set by the Bank of Estonia as at the last working day of the reporting period. Foreign currencies not quoted by the Bank of Estonia shall be converted into Estonian kroons according to the quotation for euro of the European Union of the corresponding country.

(3) Positions in gold shall be converted into Estonian kroons according to the morning quotation on the London Metal Exchange expressed in US dollars as at the last working day of the reporting period.

Division 5

Capital requirement for commodities risk

§ 259. Capital requirement for commodities risk

(1) The capital requirement for commodities risk shall be calculated on commodities and commodity derivatives. Gold in bullion form and derivatives of such gold which pursuant to Division 4 of this Chapter are deemed to be foreign currency shall be excluded from the calculation of the capital requirement for commodities risk.

(2) Positions arising from transactions related to stock financing where physical stocks are sold on the basis of a forward contract and the extent of financing is not changed before the value date may be excluded from the calculation of the capital requirement for commodities risk.

(3) In order to find each position in commodities or commodity derivatives, the assets underlying the commodities or commodity derivatives shall be expressed in standard units of measurement (barrel, kilogram, metre, etc.); thereafter, the positions shall be multiplied by the spot price in each commodity. Positions denominated in a foreign currency shall be converted into Estonian kroons according to the exchange rate set by the Bank of Estonia as at the last working day of the reporting period.

(4) If commodities or commodity derivatives are associated with interest rate or foreign-exchange risk, capital requirements against such risks shall be calculated in addition to the capital requirement against commodities risk.

(5) If the maturity of a short position in commodities or commodity derivatives is earlier than the maturity of a long position, the credit institution shall also take the possible liquidity risk into account.

§ 260. Calculation of positions in commodities and commodity derivatives

(1) The following positions shall be treated as positions in the same commodity:

- 1) positions in different sub-categories of commodities if the sub-categories are deliverable against each other;
- 2) positions in similar commodities if they are close substitutes and if a minimum correlation of 0.9 between price movements can clearly be established over a minimum period of one year.

(2) Commodity futures and forward commitments to purchase or sell individual commodities shall be taken into account as notional amounts in terms of the standard unit of measurement and multiplied by the spot price. The maturity of commodity futures and forward commitments shall be equal to the maturity of the contract.

(3) Commodity swaps where one side of the transaction is a fixed price and the other the current market price shall be taken into account as a series of positions, with one position corresponding to each payment on the swap. The positions would be long positions if the credit institution is paying a fixed price and receiving a floating price for the commodity and short positions if the credit institution is receiving a fixed price and paying a floating price for the commodity. Commodity swaps where the sides of the transaction are in different commodities shall be treated as positions in different commodities.

(4) Options on commodities or on commodity derivatives shall be treated as if they were positions equal in value to the amount of the underlying to which the option refers, multiplied by its delta. The values of positions in options shall be calculated pursuant to Division 6 of this Chapter. The delta-adjusted positions in options may be netted against any positions in the identical underlying commodity or commodity derivative.

(5) Warrants relating to commodities shall be treated in the same way as commodity options.

(6) Where a credit institution is the transferor of commodities or guaranteed rights relating to title to commodities in a repurchase agreement or the lender of commodities in a commodities lending agreement, the credit institution shall calculate its capital requirement for commodities risk pursuant to this Chapter.

§ 261. Calculating the capital requirement for commodities risk

(1) The capital requirement for commodities risk shall be calculated using either the Maturity Ladder Approach or Simplified Approach. Capital requirements shall be calculated for each commodity separately. Different approaches may be used in the case of different commodities.

(2) In order to use the Simplified Approach or change the approach used, a credit institution shall apply for the prior written approval of the Financial Supervision Authority.

§ 262. Maturity Ladder Approach to the calculation of capital requirement for commodities risk

(1) All positions in a commodity shall be assigned to the appropriate maturity bands set out in subsection (2) of this section. Physical stocks shall be assigned to the first maturity band.

(2) The maturity bands of commodity positions are as follows:

- 1) Positions with a maturity of one month or less shall be assigned to maturity band 1.
- 2) Positions with a maturity of more than one month and up to three months shall be assigned to maturity band 2.
- 3) Positions with a maturity of more than three months and up to six months shall be assigned to maturity band 3.
- 4) Positions with a maturity of more than six months and up to twelve months shall be assigned to maturity band 4.
- 5) Positions with a maturity of more than twelve months and up to two years shall be assigned to maturity band 5.
- 6) Positions with a maturity of more than two years and up to three years shall be assigned to maturity band 6.
- 7) Positions with a maturity of more than three years shall be assigned to maturity band 7.

(3) Positions in the same commodity maturing on the same date may be netted against each other. Positions may also be netted provided that they are positions in contracts maturing within ten days of each other and the contracts are traded on markets which have daily delivery dates.

(4) The positions in each maturity band shall be expressed in terms of the standard unit of measurement and multiplied by the spot price of the commodity, and then converted into Estonian kroons. Thereafter, the sum of the long positions and the sum of the short positions in each maturity band shall be calculated.

(5) The position with the smallest absolute value shall be deemed to be the matched position in a maturity band, while

the residual long or short position shall be deemed to be the unmatched position in the same band.

(6) The matched and unmatched positions between bands shall be determined in a manner similar to that set out in subsection (4) of this section, starting with the first band. That part of the position that cannot be matched between positions shall be deemed to be the residual unmatched position.

(7) The capital requirement on each commodity shall be the sum of capital requirements calculated as follows:

- 1) 3% of the matched positions in each maturity band and the matched positions between all maturity bands;
- 2) 0.6% of the sum of the absolute values of all unmatched positions between all maturity bands;
- 3) 15% of the absolute value of the residual unmatched positions.

(8) The overall capital requirement for commodities risk shall be the sum of the capital requirements on all commodities calculated pursuant to subsection (7) of this section.

§ 263. Simplified Approach to the calculation of capital requirement for commodities risk

(1) The difference between a credit institution's long and short positions in a commodity is the net position in the given commodity, and the sum of the absolute values of long and short positions in a commodity is the gross position in the given commodity.

(2) The capital requirement on each commodity shall be the sum of capital requirements calculated as follows:

- 1) 15% of the absolute value of the long or short net position;
- 2) 3% of the gross position.

(3) The overall capital requirement for commodities risk shall be the sum of the capital requirements on all commodities calculated pursuant to subsection (2) of this section.

Division 6 Capital requirements for trade portfolio risks

Subdivision 1 Trading

§ 264. Positions held with trading intent

(1) A credit institution shall have:

- 1) a clearly documented trading strategy approved by the senior management, which shall include, *inter alia*, expected holding horizon;
- 2) clearly defined principles and procedures for monitoring positions against the trading strategy, including the control of sales of positions held with the intent of trading.

(2) A credit institution shall have clearly defined principles and procedures for classifying positions as those held with the intent of trading. These principles and procedures shall, *inter alia*, provide for the following:

- 1) positions entered into on a trading desk;
- 2) position limits are set and monitored for appropriateness;
- 3) dealers have the autonomy to manage positions within agreed limits and according to the approved strategy;
- 4) positions are reported to the senior management as an integral part of the credit institution's risk management process;
- 5) positions are actively monitored with reference to market information sources and an assessment made of the marketability or hedge-ability of the position or its component risks, including the assessment of the quality and availability of market inputs to the valuation process, level of market turnover, sizes of positions traded in the market.

§ 265. Trade portfolio

(1) Credit institutions shall have clearly defined principles and procedures for determining which position to include in the trade portfolio for the purposes of calculating their capital requirements, consistent with the criteria set out in section 76 of the Credit Institutions Act and taking into account the credit institution's risk management capabilities and practices. Compliance with these principles and procedures shall be fully documented and subject to periodic internal audit.

(2) Credit institutions shall have clearly defined principles and procedures for overall management of the trade portfolio. At a minimum these principles and procedures shall address:

- 1) the activities the credit institution considers to be trading and as constituting part of the trade portfolio for capital requirement purposes;
- 2) the extent to which a position can be marked-to-market daily by reference to an active, liquid two-way market;
- 3) for positions that are marked-to-model, the extent to which the credit institution can identify all material risks of the position, hedge all material risks of the position with instruments for which an active, liquid two-way market exists, and derive reliable estimates for the key assumptions and parameters used in the model;
- 4) the extent to which the credit institution can, and is required to, generate valuations for the position that can be validated externally in a consistent manner;
- 5) the extent to which legal restrictions or other operational requirements would impede the credit institution's ability to effect a liquidation or hedge of the position in the short term;
- 6) the extent to which the credit institution can, and is required to, actively risk manage the position within its trading operation;
- 7) the extent to which the credit institution may transfer risk or positions between the non-trading and trade portfolios and the criteria for such transfers.

(4) Subordinated claims and holdings in other credit and financial institutions which are smaller than qualifying holdings may be treated in the trade portfolio as equity or debt instruments, as appropriate, where a credit institution demonstrates that it is an active market maker in these positions. In such a case, the credit institution shall have adequate systems and controls surrounding the trading of these instruments.

(5) Term trading-related repo-style transactions that a credit institution accounts for in its non-trade portfolio may be included in the trade portfolio for capital requirement purposes so long as all such repo-style transactions are included. These repo-style transactions are defined as those that meet the requirements of subsection 76 (1) of the Credit Institutions Act and section 264 of this Decree, and both legs are in the form of either cash or securities includable in the trade portfolio. Regardless of where repo-style transactions are included in the trade portfolio or non-trade portfolio, all repo-style transactions shall be subject to a counterparty credit risk charge.

§ 266. Valuation of trade portfolio positions

(1) Credit institutions shall establish and maintain systems and controls sufficient to provide prudent and reliable valuation of trade portfolio positions. Trade portfolio positions shall be marked to market. Where marking to market is not possible, credit institutions must mark to model their trade portfolio positions.

(2) Systems and controls used for the purpose of valuating trade portfolio positions shall include at least the following elements:

- 1) documented policies and procedures for the process of valuation;
- 2) reporting lines for the department accountable for the valuation process that are independent of the front office.

(3) Marking to market is the at least daily valuation of positions at readily available close-out prices that are sourced independently. Examples of such prices include exchange prices, screen prices, or quotes from several independent reputable brokers.

(4) Where a credit institution is not a significant market maker in the particular type of financial instrument or

commodity in question and it cannot close out at mid market, long positions shall be determined at the ask price and short positions shall be determined at the bid price.

(5) Marking to model is defined as any valuation which has to be benchmarked, extrapolated or otherwise calculated from market inputs.

(6) The following requirements must be complied with when marking to model:

- 1) The senior management of the credit institution shall be aware of the positions of the trade portfolio which are subject to marking to model and shall understand the materiality of the uncertainty this creates in the reporting of the risk/performance of the business;
- 2) market data used as model inputs shall be sourced in line with market prices, and the appropriateness of the market inputs of the particular position being valued and the parameters of the model shall be assessed on a continuous basis;
- 3) where available, valuation methodologies which are accepted market practice for particular financial instruments or commodities shall be used;
- 4) where the model is developed by the credit institution itself, it shall be based on appropriate assumptions, which have been assessed and challenged by a suitably qualified parties independent of the development process, with persons independent of the front office being deemed to be independent parties;
- 5) a model created by the credit institution itself shall be tested by independent parties, with testing including the valuation and validation of the mathematics, assumptions and software implementation;
- 6) the credit institution shall have formal procedures for changing the model and shall hold a secure copy of the model;
- 7) the valuation output resulting from using the model shall be controlled with the help of the copy of the model;
- 8) risk management unit shall be aware of the weaknesses of the model used and how best to reflect those in the valuation output;
- 9) the model shall be subject to periodic review to determine the accuracy of its performance, incl. assessing the continued appropriateness of assumptions, and comparison of actual close out values to model outputs.

(7) Independent price verification shall be performed in addition to daily marking to market or marking to model. Independent price verification is a process by which market prices or model inputs are regularly verified for accuracy and independence. Independent price verification shall be performed by a unit independent of the dealing room, at least monthly or more frequently if necessary. Where independent pricing sources are not available or where they are not fully independent, other appropriate measures such as valuation adjustments may be used.

§ 267. Valuation adjustments and reserves

(1) Credit institutions shall establish and maintain procedures for adjusting the valuations of trade portfolio positions or for forming the corresponding reserves.

(2) Credit institutions shall adjust the valuations of, or form book reserves for, unearned credit spreads, close-out costs, operational risks, early termination, investing and funding costs, future administrative costs and, where relevant, model risk.

(3) Estimated valuation adjustment reserves formed by a credit institution shall not be recognised in the credit institution's accounting records. Where a book reserve gives rise to material losses and exceeds the reserves formed under the accounting framework to which the credit institution is subject, the amount by which the book reserve exceeds the reserves recognised in the credit institution's accounting shall be deducted from the credit institution's original own funds in accordance with clause 73 (3) 3) of the Credit Institutions Act.

§ 268. Adjustment of valuations of less liquid positions

(1) Less liquid positions can arise from both market events and credit institution-related situations, e.g. concentrated positions and/or stale positions.

(2) Credit institutions may form a valuation reserve for less liquid positions. When determining whether a valuation

reserve is necessary for less liquid positions, a credit institution shall consider the amount of time it would take to hedge out the position/risks within the position, the volatility and average of bid/offer spreads, the availability of market quotes, the number of market makers, the volatility and average of trading volumes, market concentrations, the aging of positions, the extent to which valuation relies on marking-to-model, and the impact of other model risks.

(3) When using third party valuations of trading book positions or marking to model, credit institutions shall consider the need for valuation adjustments and the need for establishing reserves for less liquid positions on an ongoing basis.

§ 269. Internal hedges

(1) An internal hedge is a position that materially or completely offsets the component risk element of a non-trade portfolio position or a set of positions.

(2) Positions arising from internal hedges are eligible for trade portfolio capital treatment, provided that they are held with trading intent and that the following requirements are met:

- 1) internal hedges shall not be primarily intended to avoid or reduce capital requirements;
- 2) internal hedges shall be properly documented and subject to particular internal approval and audit procedures;
- 3) the internal hedges shall be dealt with at market conditions;
- 4) the market risk that is generated by the internal hedge shall be managed within the authorised limits;
- 5) internal hedges shall be carefully monitored.

(3) The treatment referred to in subsection (1) of this section shall be applied without prejudice to the capital requirements applicable to positions in the non-trade portfolio risks arising from which are hedged with the help of internal hedges.

(4) When a credit institution hedges a non-trade portfolio credit risk exposure using a credit derivative booked in its trade portfolio (using an internal hedge), the non-trade portfolio exposure is not deemed to be hedged for the purposes of calculating capital requirements. Where the credit institution purchases from an eligible protection provider meeting the requirements established in Subdivision 3 of Division 2 of this Chapter a credit derivative meeting the requirements set out in subsections 125 (1)-(5) with regard to non-trade portfolio exposures, the non-trade portfolio exposures shall be deemed to be hedged for the purposes of calculating capital requirements, provided that the credit derivative is not included in the trade portfolio for the purposes of calculating capital requirements.

Subdivision 2

Interest rate risk and equity position risk associated with trade portfolio

Sub-subdivision 1

General provisions on calculating capital requirements for interest rate risk and equity position risk associated with trade portfolio

§ 270. Capital requirement for interest rate risk and equity position risk associated with trade portfolio

(1) A credit institution shall calculate the capital requirement for the interest rate risk and equity position risk, unless it has been released from the obligation to calculate capital requirements for the interest rate risk and equity position risk and the settlement/delivery risk and counterparty credit risk associated with the trade portfolio under subsection 79 (3) of the Credit Institutions Act.

(2) Where a credit institution has been released from the obligation set out in subsection (1), it shall calculate capital requirements for instruments in its trade portfolio in accordance with Division 2 of this Decree.

(3) Capital requirements for risks associated with shares and units included in the credit institution's trade portfolio shall be calculated pursuant to the procedure established in Sub-subdivision 4 of this Subdivision.

(4) Capital requirements against the interest rate risk and equity position risk associated with the trade portfolio shall

not be calculated for positions that have been deducted from the credit institution's own funds in accordance with section 75 of the Credit Institutions Act.

§ 271. Netting in the calculation of trade portfolio positions

- (1) In calculating the exposures of its trade portfolio, a credit institution may net long and short positions in the same equity, debt and convertible issues and identical financial futures, options and warrants.
- (2) Positions in derivatives shall be included in the calculation of capital requirements as positions in the underlying instruments which may be netted against the (opposite) positions in instruments in the same issue.
- (3) No netting is allowed between a convertible and an offsetting position in the instrument underlying it, unless a method is used under which the likelihood of a particular convertible's being converted is taken into account or provides for the calculation of a capital requirement to cover any loss which conversion might entail.

§ 272. Futures, forwards and forward commitments to buy or sell debt instruments or equities

- (1) Futures, forwards and forward commitments to buy or sell debt instruments or equities shall be treated as combinations of long and short positions.
- (2) In the case of interest rate-related derivatives, "long position" means a position in which a credit institution has fixed the interest rate it will receive at a predetermined time in the future, and "short position" means a position in which it has fixed the interest rate it will pay at a predetermined time in the future.
- (3) Futures, forwards and forward commitments are divided into two positions as follows:
 - 1) the first position maturing, in the case of a future, at the maturity date of the future, and, in the case of a forward, at the settlement date of the forward;
 - 2) the second position maturing at the maturity date of the underlying instrument.
- (4) Where a position matures in more than one year, the value of the position shall be deemed to be equal to the underlying instrument's present or market value. Where a position matures in less than one year, the value of the position may be deemed to be equal to the notional amount.
- (5) The purchase of an interest-rate future or a debt instrument future creates a combination of a short position maturing at the maturity date of the future and a long position maturing at the maturity date of the underlying instrument. The purchase of an equity future creates a combination of a short position maturing at the maturity date of the future and a long position of the equity. The short position of an equity future shall be included in the calculation of the interest rate risk, and the long position shall be included in the calculation of equity position risk.
- (6) The sale of an interest-rate future or a debt instrument future creates a combination of a long position maturing at the maturity date of the future and a short position maturing at the maturity date of the underlying instrument. The sale of an equity future creates a combination of a long position maturing at the maturity date of the future and a short position of the equity. The long position of an equity future shall be included in the calculation of the interest rate risk, and the short position shall be included in the calculation of equity position risk.
- (7) The sale of an interest-rate forward creates a combination of a long position maturing at the contract term, and a short position with maturity equal to the settlement date.
- (8) The purchase of an interest-rate forward creates a combination of a short position maturing at the contract term, and a long position with maturity equal to the settlement date.
- (9) A forward commitment to buy a debt instrument creates a combination of a short position maturing at the settlement date of the commitment, and a long position maturing at the maturity date of the debt instrument. A forward commitment to buy an equity creates a combination of a short position maturing at the settlement date of the

commitment, and the long position of the equity. The short position of a forward commitment to buy an equity shall be included in the calculation of the interest rate risk, and the long position shall be included in the calculation of equity position risk.

(10) A forward commitment to sell a debt instrument creates a combination of a long position maturing at the settlement date of the commitment, and a short position maturing at the maturity date of the debt instrument. A forward commitment to sell an equity creates a combination of a long position maturing at the settlement date of the commitment, and the short position of the equity. The long position of a forward commitment to sell an equity shall be included in the calculation of the interest rate risk, and the short position shall be included in the calculation of equity position risk.

§ 273. Options, warrants and instruments similar to options

Positions in options, warrants and instruments similar to options, and capital requirements against risks associated with these instruments shall be calculated in accordance with Division 3 of this Chapter.

§ 274. Interest rate swaps

(1) An interest-rate swap under which a credit institution receives floating-rate interest and pays fixed-rate interest creates a combination of a long position in a floating-rate instrument of maturity equivalent to the period until the next interest fixing and a short position in a fixed-rate instrument with the same maturity as the swap itself.

(2) An interest-rate swap under which a credit institution receives fixed-rate interest and pays floating-rate interest creates a combination of a short position in a floating-rate instrument of maturity equivalent to the period until the next interest fixing and a long position in a fixed-rate instrument with the same maturity as the swap itself.

§ 275. Equity swaps

(1) An equity swap under which equities are exchanged creates a combination of the long position in equities to be received and the short position in equities to be delivered.

(2) An equity swap under which a credit institution receives fixed-rate or floating-rate interest creates a combination of a long position in a fixed-rate or floating-rate instrument of maturity equivalent to the maturity of the swap or the period until the next interest fixing, and a short position in the equity. The long position shall be included in the calculation of the interest rate risk and the short position shall be included in the calculation of equity position risk.

(3) An equity swap under which a credit institution pays fixed-rate or floating-rate interest creates a combination of a short position in a fixed-rate or floating-rate instrument of maturity equivalent to the maturity of the swap or the period until the next interest fixing, and a long position in the equity. The short position shall be included in the calculation of the interest rate risk and the long position shall be included in the calculation of equity position risk.

§ 276. Provision of credit protection

(1) Where credit institution is the credit protection provider who assumes the credit risk of another counterparty, the capital requirement shall be calculated on the basis of the notional amount of the credit derivative sold, unless otherwise established in this Decree.

(2) For the purpose of calculating the specific risk capital charge, other than for total return swaps, the maturity of the credit derivative is applicable instead of the maturity of the obligation.

§ 277. Positions arising from credit protection provision

(1) A total return swap creates a combination of a long position in the general market risk of the reference obligation and a short position in the general market risk of a government bond with a maturity equivalent to the period until the next interest fixing and which is assigned a 0% risk weight under Subdivision 1 of this Division. The long position

shall be included in the calculation of the capital requirement for general risk and specific risk, and the short position shall be included only in the calculation of the capital requirement for general risk.

(2) A credit default swap creates a synthetic long position in a debt instrument whose credit risk is transferred to the credit protection provider by the transaction. Where a credit default swap has an external rating meeting the requirements for eligible instruments specified in section 285, the long position in the derivative shall be recognised. In the case that premium or interest payments are due under the transaction, the position in government bonds shall be recognised as the short position. Positions arising from a credit default swap shall be included in the calculation of the specific risk capital charge only.

(3) A single name credit linked note creates a combination of a long position in the note and a synthetic long position in the debt instrument whose credit risk is transferred to the credit protection provider by the transaction. The long position in the credit linked note shall be included in the calculation of the capital requirement for general risk and in the calculation of the capital requirement for specific risk, and the position in the debt instrument for which credit protection is provided shall be included in the calculation of the capital requirement for specific risk. The capital requirement for general risk shall not be calculated if the credit linked note has an external rating meeting the requirements for eligible instruments specified in section 285.

(4) A multiple name credit linked note providing proportional protection creates a combination of a long position in the note and synthetic long positions in the debt instruments whose credit risk is transferred to the credit protection provider by the transaction. The long synthetic long positions shall be calculated on the basis of the total notional amount of the contract and according to the proportion of the total notional amount that the debt instruments of different issuers represents. Where credit protection is simultaneously provided for several debt instruments issued by one and the same issuer, the debt instrument with the highest risk weighting shall serve as the basis for determining the specific risk. The long position in the note providing credit protection shall be included in the calculation of the capital requirement for general risk and in the calculation of the capital requirement for specific risk, and long synthetic positions shall be included in the calculation of the capital requirement for specific risk. The capital requirement for general risk shall not be calculated if the credit linked note has an external rating meeting the requirements for eligible instruments specified in section 285.

(5) A first-asset-to-default credit derivative creates a combination of long positions in all debt instruments covered by the credit derivative. The combination of long positions shall be included in the calculation of the capital requirement for specific risk.

(6) A second-asset-to-default credit derivative creates a combination of long positions in each debt instrument issued by different issuers less one (that with the lowest specific risk capital requirement). The combination of long positions shall be included in the calculation of the capital requirement for specific risk.

(7) If the capital requirement for specific risk calculated in accordance with subsections (5) and (6) of this section is higher than the amount of the maximum credit event payment by the credit protection provider, the latter amount shall be taken as the capital requirement for specific risk.

(8) If the credit derivatives specified in subsections (5) and (6) of this section have been externally rated and they meet the requirements for eligible instruments specified in section 285, the capital requirement for specific risk shall be calculated on the long position of the derivative.

§ 278. Transfer of credit protection

(1) A credit institution who transfers credit risk (the "protection buyer") shall treat positions arising from the purchase of protection as the mirror image of those set out in sections 276 and 277, with the exception of credit linked notes (which entail no short position in the note).

(2) In the case of n^{th} to default credit derivatives, protection buyers are allowed to off-set specific risk for $n-1$ of the underlying instruments. The instruments with the lowest specific risk charge shall be deemed hedged in such a case.

§ 279. Using sensitivity models in the calculation of interest rate positions

(1) Subject to the prior written approval of the Financial Supervision Authority, credit institutions may use sensitivity models to calculate positions in debt instruments and derivatives based on debt instruments. The sensitivity models shall generate positions which have the same sensitivity to interest-rate changes as the underlying cash flow. At least one sensitivity-based assessment shall be included in each of the maturity bands set out in subsection 288 (2). Changes in optional interest rates shall be independent of each other.

(2) Positions resulting from a sensitivity model may be included in both maturity-based and duration-based calculations of capital requirements.

§ 280. Repurchase agreements and securities lending

On securities delivered under repurchase agreements and securities lending agreements, which are included in the trade portfolio of the credit institution, capital requirements shall be calculated pursuant to the procedure established in this Division.

§ 281. Underwriting commitments

(1) Commitments to underwrite securities issues are agreements under which, prior to the subscription term, a credit institution undertakes to subscribe a predetermined maximum quantity of unsubscribed securities of the securities issue at an agreed price on a fixed date in order to ensure that the issued securities are subscribed.

(2) Positions arising from underwriting commitments shall be included in the trade portfolio. The risks associated with underwriting commitments depend on the period of time that has passed since the date of entry into force of the agreement and shall be taken into account in the calculation of the capital requirement for specific and general risk as reduced net positions.

(3) The reduced net positions in underwriting commitments shall be calculated as follows:

1) positions arising from underwriting commitments concluded by third parties for the benefit the credit institution are deducted from positions arising from underwriting commitments concluded by the credit institution for the benefit of third parties;

2) the net positions calculated in accordance with clause 1) of this subsection shall be adjusted with the following reduction factors:

Business day	Reduction factor
Commitments which have entered into force on the same business day	100%
Commitments which have entered into force one business day ago	90%
Commitments which have entered into force two to three business days ago	75%
Commitments which have entered into force four business days ago	50%
Commitments which have entered into force five business days ago	25%
Commitments which have entered into force more than five business days ago	0%

Sub-subdivision 2 Capital requirement for interest rate risk

§ 282. Calculation of capital requirements for interest rate risk

A credit institution shall calculate capital requirements for the specific interest rate risk pursuant to the procedure established in sections 283 and 284 and for the general interest rate risk pursuant to the procedure established in sections 285 and 286 separately for each currency.

§ 283. Capital requirement for specific interest rate risk

- (1) The capital requirement on debt instruments against specific risk shall be calculated for positions calculated under sections 271-281, on the basis of the issuer, debtor, external rating or internal rating, and the residual maturity.
- (2) To calculate the capital requirement for the specific interest rate risk, long and short positions shall be multiplied by the capital requirement rates specified in section 280 and the absolute values of these products shall be totalled.
- (3) The capital requirement for the specific interest rate risk shall be calculated on all transactions related to debt instruments where the interest is based on the debt instrument of a specific issuer.
- (4) In calculating the capital requirement for the specific interest rate risk, the following instruments shall not be taken into account provided that their value depends on the general interest rate level of the market as a whole, not on the interest rates related to the debt instruments of a specific issuer:
 - 1) foreign exchange, equity and commodity derivatives;
 - 2) interest-rate forwards, futures and options;
 - 3) interest rate swaps;
 - 4) the short position in the forward commitment to buy a debt instrument;
 - 5) the long position in the forward commitment to sell a debt instrument.
- (5) Debt securities held by a reporting credit institution and issued by the same credit institution shall not be included in the calculation of specific risk.

§ 284. Capital requirement for specific interest rate risk

- (1) Capital requirements for the specific risk on debt instruments issued or guaranteed by central governments, or issued by central banks, international organisations, multilateral development banks or Member States' regional governments or local authorities shall be determined as follows:
 - 1) if these debt instruments would qualify for credit quality step 1 or if they would receive a 0% risk weight under sections 26-30, the specific risk capital charge shall be 0%;
 - 2) if these debt instruments would qualify for credit quality step 2 or 3 under sections 26-30 and their residual term to final maturity is less than 6 months, the capital charge shall be 0.25%; if the residual term to final maturity is at least 6 months and up to 1 year, the capital charge shall be 1%; and if the residual term to final maturity is more than 1 year, the capital charge shall be 1.6%;
 - 3) if these debt instruments would qualify for credit quality step 4 or 5 under sections 26-30 or if no external assessment is available for these debt instruments, the capital charge shall be 8%;
 - 4) if these debt instruments would qualify for credit quality step 6 under sections 26-30, the capital charge shall be 12%.
- (2) Capital requirements for the specific risk on debt instruments issued or guaranteed by credit institutions and investment firms shall be determined as follows:
 - 1) if these debt instruments would qualify for credit quality step 1 or 2 under section 31 and their residual term to final maturity is less than 6 months, the capital charge shall be 0.25%; if the residual term to final maturity is at least 6 months and up to 1 year, the capital charge shall be 1%; and if the residual term to final maturity is more than 1 year, the capital charge shall be 1.6%;
 - 2) if these debt instruments would qualify for credit quality step 3, 4 or 5 under section 31 or if no external assessment is available for these debt instruments, the capital charge shall be 8%;
 - 3) if these debt instruments would qualify for credit quality step 6 under section 31, the capital charge shall be 12%.
- (3) Capital requirements for the specific risk on debt instruments issued or guaranteed by companies shall be determined as follows:

- 1) if these debt instruments would qualify for credit quality step 1 or 2 under section 32 and their residual term to final maturity is less than 6 months, the capital charge shall be 0.25%; if the residual term to final maturity is at least 6 months and up to 1 year, the capital charge shall be 1%; and if the residual term to final maturity is more than 1 year, the capital charge shall be 1.6%;
- 2) if these debt instruments would qualify for credit quality step 3 or 4 under section 32 or if no external assessment is available for these debt instruments, the capital charge shall be 8%;
- 3) if these debt instruments would qualify for credit quality step 5 under subsection 32 (1) or if they would receive a 150% risk weight under subsection 28 (2), the capital charge shall be 12%.

(4) Credit institutions that apply the Internal Ratings Based Approach to calculate capital requirements for credit risk may use the specific risk capital charges set out in subsections (1)-(3) of this section, provided that the issuer or obligor of the debt instrument in question is assigned an internal rating with a PD equivalent to or lower than that of the external assessment serving as the basis for the appropriate credit quality step.

(5) To debt instruments not mentioned in section 281 of this Decree the capital charge of 8% or 12% shall be applied on the basis of subsections (1)-(3) of this section.

(6) Securitisation exposures that would be subject to a deduction treatment as established in subsection 8 (1) or risk-weighted at 1250% as set out in Subdivision 4 of Division 2 of this Chapter, as well as unrated liquidity facilities, shall be subject to a specific risk capital charge that is no less than that set out with regard to such exposures in Subdivision 4 of Division 2 of this Chapter.

(7) To debt instruments that show a particular risk because of the insufficient solvency of the issuer or because of insufficient liquidity, the capital charge of 12% shall be applied.

(8) Capital requirements for specific risk calculated on interest positions covered by credit derivatives may be reduced pursuant to the procedure established in Sub-subdivision 4 of this Subdivision.

§ 285. Qualifying debt instruments

(1) Qualifying debt instruments include:

- 1) long and short positions in assets qualifying for a credit quality step corresponding at least to investment grade under the procedure established in Subdivision 1 of Division 2 of this Chapter;
- 2) long and short positions in assets which, because of the solvency of the issuer, have a PD under the Internal Ratings Based Approach which is not higher than that of the positions referred to in clause 1) of this subsection;
- 3) long and short positions in assets for which an external assessment is not available, if the credit institution in question considers the assets to be sufficiently liquid; if their credit quality is, according to the credit institution's own discretion, at least equivalent to that of the assets referred to in clause 1) of this subsection; and if they are listed on at least one regulated market in a Member State or on a stock exchange in a third country provided that the exchange is recognised by the competent authorities of the relevant Member State;
- 4) long and short positions in assets issued by a credit institution or investment firm that is subject to capital adequacy requirements equivalent to those established in this Decree, which are considered by the institutions concerned to be sufficiently liquid and whose credit quality is, according to the credit institution's own discretion, at least equivalent to that of the assets referred to in clause 1) of this subsection; and
- 5) securities issued by a credit institution or investment firm that is subject to capital adequacy requirements equivalent to those established in this Decree, which are deemed to be of equivalent, or higher, credit quality than those associated with credit quality step 2 under the procedure set out in Subdivision 1 of Division 2 of this Chapter.

(2) The Financial Supervision Authority is entitled to scrutinise the manner in which the debt instruments are assessed and may overturn the judgment of the institution if it considers that the instruments concerned are subject to too high a degree of specific risk to be qualifying items.

§ 286. Capital requirement for general interest rate risk

(1) The capital requirement on debt instruments against general risk shall be calculated using either the maturity-based approach set out in section 288 or the duration-based approach set out in section 289. For different debt instruments, different approaches may be used in the calculation of general risk.

(2) In order to use the duration-based approach or change the approach used, a credit institution shall apply for the prior written approval of the Financial Supervision Authority.

§ 287. Netting of positions in derivative instruments in the calculation of general interest rate risk

(1) If a sensitivity model is not used in the calculation of interest positions, a credit institution may, with the prior written approval of the Financial Supervision Authority, treat as fully offsetting the long and short positions in derivative instruments which meet the conditions established in this subsection. Positions may be netted if:

- 1) the positions are of the same absolute value and denominated in the same currency;
- 2) the interest rates do not vary by more than 15 basis points (0.15%);
- 3) the next interest-fixing date for floating-rate positions or residual maturity for fixed-rate positions shall, in respect of the date of the report, be on the same day in the case of positions with the maturity of less than one month, not over seven days in the case of positions with the maturity between one month and one year and not over thirty days in the case of positions with the maturity of one year or more.

(2) In the case of floating-rate positions, the interest rate fixed on the last interest-fixing date shall be taken into account in adhering to the conditions set out in clause 2) of subsection (1) of this section.

§ 288. Maturity-based approach

(1) The capital requirement for general risk on debt instruments shall be calculated on the basis of the maturity-based approach as follows:

- 1) The positions in debt instruments shall be assigned to the appropriate maturity bands on the basis of the conditions set out in subsection (2) of this section. Maturity shall be determined on the basis of residual maturity in the case of fixed-rate instruments and on the basis of the period until the next interest-rate fixing in the case of floating-rate instruments.
- 2) The positions in debt instruments shall be multiplied by the weightings set out in subsection (2) of this section.
- 3) The matched and unmatched positions in the maturity bands shall be calculated.
- 4) The absolute values of the matched positions in all maturity bands shall be totalled.
- 5) The totals of the unmatched long and short positions for the bands shall be totalled separately in each of the zones.
- 6) The matched and unmatched positions shall be calculated for each zone.
- 7) The matched position between the unmatched positions in zones 1 and 2 shall be calculated.
- 8) If, as a result of the calculation specified in clause 7) of this subsection, the unmatched position falls in zone 2, the matched position between the unmatched positions in zones 2 and 3 shall be calculated. If, as a result of the calculation described in clause 7) of this subsection, the unmatched position falls in zone 1, the matched position between the unmatched positions in zones 1 and 3 shall be calculated.
- 9) The unmatched long and short positions for zones calculated pursuant to clause 6) of this subsection shall be totalled.

(2) Maturity bands, zones and weightings for debt instruments are as follows:

ZONE	Maturity bands		Weighting (in %)	Assumed interest rate change (in %)	
	Coupon of 3% or more	Coupon of less than 3%			
One	1	0 ≤ 1 month	0 ≤ 1 month	0.00	-
	2	> 1 ≤ 3 months	> 1 ≤ 3 months	0.20	1.00
	3	> 3 ≤ 6 months	> 3 ≤ 6 months	0.40	1.00

	4	> 6 ≤ 12 months	> 6 ≤ 12 months	0.70	1.00
Two	5	> 1 ≤ 2 years	> 1.0 ≤ 1,9 years	1.25	0.90
	6	> 2 ≤ 3 years	> 1.9 ≤ 2.8 years	1.75	0.80
	7	> 3 ≤ 4 years	> 2.8 ≤ 3.6 years	2.25	0.75
Three	8	> 4 ≤ 5 years	> 3.6 ≤ 4.3 years	2.75	0.75
	9	> 5 ≤ 7 years	> 4.3 ≤ 5.7 years	3.25	0.70
	10	> 7 ≤ 10 years	> 5.7 ≤ 7.3 years	3.75	0.65
	11	> 10 ≤ 15 years	> 7.3 ≤ 9.3 years	4.50	0.60
	12	> 15 ≤ 20 years	> 9.3 ≤ 10.6 years	5.25	0.60
	13	> 20 years	> 10.6 ≤ 12.0 years	6.00	0.60
	14		> 12.0 ≤ 20.0 years	8.00	0.60
	15		> 20.0 years	12.50	0.60

(3) If the maturity-based approach is used, the capital requirement for the general interest rate risk shall be the sum of capital requirements calculated pursuant to the following clauses:

- 1) 10% of the matched positions in all maturity bands;
- 2) 40% of the matched positions in zone 1;
- 3) 30% of the matched positions in zone 2;
- 4) 30% of the matched positions in zone 3;
- 5) 40% of the matched positions between zones 1 and 2 and between zones 2 and 3;
- 6) 150% of the matched positions between zones 1 and 3;
- 7) 100% of the residual unmatched position.

§ 289. Duration-based method

(1) The modified duration of each debt instrument shall be calculated in accordance with the following formula:

 , where



(2) The symbols in the formula provided for in subsection (1) of this section mean the following:

- 1) D is duration;
- 2) D_n is modified duration;
- 3) r is the yield to maturity;
- 4) C_t is the cash flow in period t;
- 5) n is the number of years until the maturity date of the debt instrument.

(3) A debt instrument's yield to maturity shall be calculated on the basis of its market value. In the case of fixed-rate debt instruments, yield to maturity shall equal the discount rate that equates the sum of the present values of the cash flow of the debt instrument with the market value of the debt instrument. In the case of floating-rate debt instruments, residual maturity is deemed to be the period until the next interest-fixing date.

(4) Each debt instrument shall be allocated to the appropriate zone set out in the following table on the basis of their modified duration:

Zone	Modified duration in years	Assumed interest rate change (in %)
One	> 0 ≤ 1.0	1.0
Two	> 1.0 ≤ 3.6	0.85
Three	> 3.6 ≤	0.7

(5) The duration-weighted position shall be calculated for each debt instrument. To calculate the duration-weighted position, the position in an instrument shall be multiplied by its modified duration and by the assumed interest-rate change.

(6) The long and short positions for all zones, matched and unmatched positions for all zones and matched and unmatched positions between zones shall be calculated pursuant to subsection 288 (1).

(7) If the duration-based approach is used, the capital requirement for the general interest rate risk shall be the sum of capital requirements calculated pursuant to the following clauses:

- 1) 2% of the matched positions in each zone;
- 2) 40% of the matched positions between zones 1 and 2 and between zones 2 and 3;
- 3) 150% of the matched positions between zones 1 and 3;
- 4) 100% of the residual unmatched position.

§ 290. Other interest rate risks

Besides the interest rate risk, a debt instrument may be associated with a foreign-exchange risk, trade portfolio settlement/delivery risk and counterparty credit risk. In such a case, the capital requirements against these risks shall also be calculated. A credit institution shall always be able to explain to the Financial Supervision Authority whether a specific debt instrument is associated with a certain risk and if so, how it is associated with that risk.

Sub-subdivision 3 Capital requirements for equity position risk

§ 291. Calculation of capital requirements for equity position risk

(1) The capital requirement for equity position risk shall be calculated on shares or other holdings in the equity capital of companies and on convertible debt securities (hereinafter in this Chapter *equities*) which are likely to be converted. Derivative instruments with equities or stock indices as the underlyings shall be treated as equities or broken down into positions in each of their constituent equities.

(2) Highly liquid equities are equities representing a broadly diversified equity index.

(3) The following indices are deemed to be broadly diversified equity indices:

Australia	All Ords	USA	S&P 500
Austria	ATX	Netherlands	EOE25
Belgium	BEL20	Spain	IBEX35
Japan	Nikkei225	Sweden	OMX
Canada	TSE35	Switzerland	SMI
France	CAC40	Great Britain	FTSE 100
Germany	DAX	Great Britain	FTSE mid-250

(4) Capital requirements for equity position risk shall be calculated on gross and net positions.

§ 292. Calculating gross and net positions in equities

(1) The gross position in equities shall be calculated as the sum of all long and short equity positions, with short positions being recorded in their absolute values. In the calculation of gross positions, futures with broadly diversified equity indices listed in subsection 291 (3) as the underlyings shall not be taken into account.

(2) The net position in equities shall be calculated as the difference between the sum of all long equity positions and all short equity positions.

§ 293. Calculation of capital requirement for specific equity position risk

- (1) The capital requirement for specific equity position risk shall be 4% of the gross equity position.
- (2) A credit institution may apply a capital requirement of 2% to gross positions in highly liquid equities subject to compliance with the following conditions:
 - 1) the positions are not in equities of the issuers that have issued only traded debt instruments that currently attract an 8% or 12% capital requirement under section 284 or that attract a lower requirement only because they are guaranteed or secured;
 - 2) no individual position comprises more than 5% of the value of the aggregate value of the given equity portfolio.
- (3) Capital requirements for specific risk calculated on interest positions covered by credit derivatives may be reduced pursuant to the procedure established in Sub-subdivision 4 of this Subdivision.

§ 294. Capital requirement for general equity position risk

The capital requirement for general equity position risk shall be the overall net position multiplied by 8%.

§ 295. Other equity position risks

In addition to position risk, equities may be associated with a foreign-exchange risk, trade portfolio settlement/delivery risk and counterparty credit risk. In such a case, the capital requirements against these risks shall also be calculated. A credit institution shall always be able to explain to the Financial Supervision Authority whether a specific equity is associated with a certain risk and if so, how it is associated with that risk.

Sub-subdivision 4

Specifications of calculating capital requirements for interest rate risk and specific equity position risk for credit derivatives and units/shares of CIUs

§ 296. General principles of calculating capital requirements against specific risk for transactions hedged by credit derivatives

In the cases set out in section 297 of this Decree, the specific risk capital charge shall be calculated either on the position arising from the credit derivative or on the position hedged by the credit derivative, depending on which position would attract the higher specific risk capital charge.

In all other cases the specific risk capital charge shall be calculated on both the position arising from the credit derivative and the position hedged by the credit derivative.

§ 297. Allowance for protection provided by credit derivatives in the calculation of specific risk capital charge

- (1) Full allowance shall be given if the value of the position whose risk is to be hedged and the value of the reference obligation always move in the opposite direction and broadly to the same extent. The following circumstances refer to such a situation:
 - 1) the position whose risk is to be hedged, and the position hedging the risk of a credit derivative arise from identical instruments; or
 - 2) a long position is hedged by a total return swap (or vice versa) and there is an exact match between the reference obligation and the underlying exposure (i.e. the cash position). The maturity of the swap itself may be different from that of the underlying exposure.
- (2) An 80% offset may be applied to the covered part of the position arising from a transaction hedged by a credit derivative which attracts the higher specific risk capital charge, while the capital requirement on the other position which attracts the lower specific risk charge may be reduced to zero subject to the following conditions:

- 1) the values of the hedged exposure always move in the opposite direction and there is an exact match in terms of the maturity and currency of the reference obligation and the underlying exposure;
- 2) the credit derivative contract shall not contain any provisions that might cause material changes in the price of the credit derivative which do not result from changes in the value of the reference obligation.

(2) In the following cases, partial allowance may be given when the values of positions move in the opposite direction:

- 1) the positions fall under clause 2) of subsection (1) of this section, but there is a mismatch between the reference obligation and the underlying exposure, if they share the same issuer and the reference obligation ranks pari passu with or is junior to the underlying obligation;
- 2) the positions fall under clause 1) of subsection (1) of this section or under subsection (2) of this section, but there is a currency or maturity mismatch between the reference obligation and the underlying exposure, and the foreign-exchange risk arising from currency mismatches is to be recognised in accordance with the provisions of Division 4 of this Chapter;
- 3) the positions fall under subsection (2) of this section, but there is a mismatch between the reference obligation and the underlying exposure, if the underlying exposure is included in the debt instruments hedged by the credit derivative under the credit derivative documentation.

§ 298. General principles of calculating capital requirements for the position risk of units/shares of CIUs

(1) The capital requirements for position risks (specific and general) arising from positions in units and shares of CIUs may be calculated in accordance with the methods set out in sections 291 or 292.

(2) Netting is permitted between positions in the underlying investments of the CIU and other positions held by the credit institution, where the procedure for calculating capital requirements as set out in section 300 is applied, as long as the credit institution holds a sufficient quantity of units or shares of the CIU to allow for redemption/creation in exchange for the underlying investments.

§ 299. Calculating capital requirements for position risk of units/shares of CIUs

Positions in the units/shares of CIUs shall be subject to a capital requirement for a position risk of 32% of the value of such positions.

The capital requirement for a position risk arising from units/shares of CIUs, calculated in accordance with this Subdivision, taken with the capital requirement for foreign-exchange risk calculated in accordance with Division 4 of this Chapter and the capital requirement for commodities risk calculated in accordance with Division 5 of this Chapter shall not exceed 40% of the values of the relevant positions.

§ 300. Calculating capital requirements for position risk on the basis of underlying exposures of CIUs

(1) Provided that units/shares of CIUs meet the criteria specified in subsection 39 (5) of this Decree, the underlying exposures of investments made by the CIUs shall be treated as investments made by the credit institution and capital requirements for a position risk associated with these investments shall be calculated pursuant to the procedure established in this Subdivision or, subject to the approval of the Financial Supervision Authority, pursuant to the procedure established in Subdivision 6 of this Division.

(2) Where a credit institution has a position in the units/shares of a CIU whose mandate prescribes the objective of replicating the composition and performance of an externally generated index or fixed basket of equities or debt securities, and a minimum correlation of 0.9 between daily price movements of the CIU and the index or basket of equities or debt securities it tracks can be clearly established over a minimum period of six months, the credit institution may calculate the capital requirements for a position risk on the basis of the underlying exposures that replicate the composition and performance of the externally generated index or fixed basket of equities or debt securities.

(3) Where the credit institution does not possess reliable information about the investments of a CIU, the capital requirements shall be calculated on the basis of the investment limits provided for in the fund rules. The following shall be presumed in calculating positions:

- 1) the CIU has first invested to the maximum extent allowed under its rules in the instruments that attract the highest capital requirement for a position risk according to this Subdivision, and then in other instruments in the descending order of position risk until all investments were divided into groups in accordance with the investment limits;
- 2) the assets of the CIU have been invested to the maximum financial leverage extent allowed.

(4) Positions calculated in accordance with clauses 1) and 2) of subsection (3) of this section shall be recognised in the calculation of capital requirement similarly to other positions of the credit institution. Should the capital requirement for a position risk exceed the limit of capital requirements set out in subsection 299 (2), the capital requirement calculated under this section shall be capped at that level.

(5) In determining the risk weights, credit institutions may rely on information obtained from third parties, provided that the correctness of the calculation of capital requirements is ensured.

Subdivision 3

Capital requirements for trade portfolio settlement/delivery risk and counterparty credit risk

§ 301. Capital requirement for trade portfolio settlement/delivery risk

(1) In the case of transactions where debt instruments, equities, foreign currencies or commodities in a credit institution's trade portfolio are not settled by the prescribed due delivery dates and where this results in a price change that could involve a loss for the credit institution, the credit institution shall calculate the capital requirement for a settlement/delivery risk.

(2) Repurchase and reverse repurchase transactions, and securities or commodities lending and borrowing transactions shall not be taken into account in the calculation of the capital requirement.

(3) To calculate the capital requirement, the difference between the agreed settlement price for the debt instrument, equity, foreign currency or commodity in question and its current market value, if the difference could involve a loss for the credit institution, shall be multiplied by the following capital charge rates:

Number of banking days after due settlement date	Capital charge rate (%)
5-15	8
16-30	50
31-45	75
46 or more	100

§ 302. Capital requirement for counterparty credit risk

The capital requirement for a counterparty credit risk shall be 8% of risk-weighted exposure amounts calculated pursuant to the procedure established in this Subdivision.

Capital requirement for a counterparty credit risk shall be calculated for exposures arising from the following transactions:

- 1) free deliveries;
- 2) OTC derivative instruments and credit derivatives;
- 3) repurchase agreements, reverse repurchase agreements, securities or commodities lending or borrowing transactions based on securities or commodities included in the trade portfolio;
- 4) margin lending transactions;

5) long settlement transactions.

Where a credit derivative included in the trade portfolio forms part of an internal hedge and it meets the criteria established in Subdivision 3 of Division 2 of this Chapter, the capital requirement for a counterparty credit risk shall not be calculated.

§ 303. Capital requirement for counterparty credit risk on free deliveries

(1) A credit institution shall treat the following transactions as free deliveries:

- 1) it has paid for securities or commodities before receiving them or it has delivered securities or commodities before receiving payment for them;
- 2) in the case of cross-border transactions, one day or more has elapsed since it made that payment or delivered the securities or commodities.

(2) Where securities have not been delivered or payment has not been received when due, the positions arising from the transaction shall be treated as exposures for which capital requirements shall be calculated pursuant to the procedure established in Subdivision 1 or Subdivision 2 of Division 2 of this Chapter, depending on the method the credit institution employs for calculating the capital requirement for credit risk, taking into account the provisions of subsection (4) and (5) of this section. The calculation of the capital requirement shall be commenced on the first day following the due date of the first contractual payment or delivery leg and shall be applied until the fourth day following the due date of the second payment or delivery leg.

(3) Starting from the fifth day following the due date of the second payment or delivery leg, the value of the transaction (plus any increase in the value of non-delivered securities) shall be deducted from the credit institution's own funds.

(4) Credit institutions that apply the Internal Ratings Based Approach to calculate capital requirements for credit risk may assign PDs to counterparties, for which they have no other non-trade portfolio exposure, on the basis of the counterparty's external assessment and apply the expected loss rates referred to in section 70.

(5) Irrespective of the provisions of subsection (4) of this section, credit institutions using the Internal Ratings Based Approach for calculating capital requirements against credit risk may apply the Standardised Approach set out in Subdivision 1 of Division 2 of this Chapter or a risk weight of 100% to free delivery exposures. A selected treatment shall be applied to all free delivery exposures.

§ 304. Calculating capital requirement against counterparty credit risk for exposures arising from other transactions

(1) To calculate the capital requirements for instruments specified in clauses 302 (2) 2)-5) of this Decree, the risk-weighted exposure amounts shall be calculated for these instruments in accordance with Division 2 of this Chapter, taking into account the specifications established in this section.

(2) In calculating the exposure values, the procedure for calculating exposure values established in Subdivision 6 of Division 2 of this Chapter shall be applied to credit derivatives.

(3) In calculating exposure values under the Mark-to-Market Method set out in Sub-subdivision 4 of Subdivision 6 of Division 2 of this Chapter, the following percentages shall be applied to positions arising from total return swaps and credit default swaps:

- 1) 5% if the reference obligation meets the criteria established in section 285;
- 2) 10% if the reference obligation does not meet the criteria established in section 285.

(4) In the case of a credit default swap, a credit institution the exposure of which arising from the swap represents a long position in the underlying may use a figure of 0% for potential future credit exposure when applying the Mark-to-

Market Method, unless the credit default swap is subject to closeout upon the insolvency of the entity the exposure of which arising from the swap represents a short position in the underlying.

(5) Where the credit derivative provides credit protection in relation to 'nth to default' amongst a number of underlying obligations, which of the percentage figures prescribed in subsection (3) is to be applied is determined by the obligation with the nth lowest credit quality determined by whether it is one that if incurred by the credit institution would be a qualifying item for the purposes of section 285.

(6) When calculating the capital requirement for a counterparty credit risk, credit institutions shall use the Financial Collateral Comprehensive Method set out in section 137 for the recognition of the effects of existing financial collateral, taking into account the following specifications:

- 1) In the case of repurchase transactions and securities or commodities lending or borrowing transactions booked in the trade portfolio, all financial instruments and commodities that are eligible to be included in the trade portfolio may be recognised as eligible collateral.
- 2) For exposures due to OTC derivative instruments booked in the trade portfolio, commodities that are eligible to be included in the trade portfolio may also be recognised as eligible collateral.
- 3) Where a credit institution is using supervisory volatility adjustments, it shall apply the volatility adjustments of Other Equities or Convertible Bonds listed on a recognised exchange set out in section 142 to financial collateral eligible under clauses 1) and 2) of this subsection which are not specified in sections 111 and 112 of this Decree.
- 4) Where a credit institution is using the Own Estimates of Volatility adjustments approach, it shall determine its own estimates of volatility adjustments for each individual type of financial collateral eligible under clauses 1) and 2) of this subsection which are not specified in sections 111 and 112 of this Decree.

(7) Where there is a netting agreement meeting the criteria specified in Sub-subdivision 8 of Subdivision 6 of Division 2 of this Chapter, positions arising from repurchase transactions and/or securities or commodities lending or borrowing transactions and/or other capital market-driven transactions in the trade portfolio and the non-trade portfolio may only be netted when the following conditions are met:

- 1) all transactions are marked to market daily;
- 2) any instruments borrowed, purchased or received under the transactions comply with the requirements established in sections 111 and 112 and are recognised as eligible collateral in the calculation of risk-weighted exposure amounts under Subdivision 3 of Division 2 of this Chapter, without the application of clauses 1) and 2) of subsection (6) of this section.

§ 305. Waiver of capital requirements for trade portfolio settlement/delivery risk and counterparty credit risk for free deliveries

In cases of a system-wide failure of a settlement or clearing system, compliance with the capital requirements established in sections 302 and 303 shall be waived until the situation is rectified. In this case, the failure of a counterparty to settle a trade shall not be deemed a default for the purposes of credit risk.

Subdivision 4

Use of internal risk-measurement models to calculate capital requirements for market risk

§ 306. Using internal risk measurement

Subject to the conditions laid down in this Subdivision and with the prior written approval of the Financial Supervision Authority, a credit institution may calculate its capital requirements for the interest rate risk, equity position risk, foreign-exchange risk, commodities risk and options risk using its own internal risk-management models (hereinafter *internal models*) instead of or in combination with the methods described in this Chapter.

§ 307. Using internal risk-measurement models

To receive the approval, the Financial Supervision Authority shall be satisfied that the credit institution's risk-

management system is conceptually sound and implemented with integrity and that all of the following standards are met:

- 1) The internal risk-measurement model is closely integrated into the daily risk-management process of the credit institution and its outputs serve as the basis for reporting risk exposures to members of the supervisory board and management board and to other persons in the executive management (hereinafter *senior management*) of the credit institution.
- 2) The credit institution has a risk control unit that is independent from business trading units and reports directly to senior management. The unit must be responsible for designing and implementing the credit institution's risk-management system. It shall analyse the outputs of the risk-measurement model on a daily basis and forward suggestions on the appropriate measures to be taken in terms of trading limits. A risk estimate produced by an internal model may be recognised in the calculation of capital requirements, provided that the unit has approved the model as a result of a reliable assessment. The unit shall conduct the initial and on-going validation of the internal model.
- 3) The credit institution's senior management is actively involved in the risk-management process and the daily reports produced by the risk-control unit are reviewed by a level of management with sufficient authority to enforce reductions of positions.
- 4) The credit institution has sufficient staff with knowledge and skills required for using internal models.
- 5) The credit institution has established procedures for monitoring and ensuring compliance with a documented set of internal policies and controls concerning the overall operation of the risk-measurement system.
- 6) The credit institution's internal models have a proven track record of reasonable accuracy in measuring risks.
- 7) The credit institution frequently conducts a rigorous programme of stress testing and the results of these tests are reviewed by senior management. The senior management of the credit institution reckons the results of the tests in the policies and limits it sets. The stress testing process shall particularly address the risks that might materialise in the case of illiquidity of markets in stressed market conditions, concentration risks, risks arising from one way markets, event and jump-to-default risks. The tests shall also address risks resulting from non-linearity of products, deep out-of-the-money positions, positions subject to the gapping of prices and other risks that may not be captured appropriately in the value-at-risk model. The shocks applied shall reflect the nature of the portfolios and the time it could take to hedge out or manage risks under severe market conditions.
- 8) The credit institution must conduct, as part of its regular internal auditing process, an independent review of its risk-measurement system. The review shall include both the activities of the business trading units and of the independent risk-control unit. At least once a year, the credit institution must conduct a review of its overall risk-management process.

§ 308. Requirements on internal audit reviews

The reviews referred to in clause 307 8) of this Decree shall address the following:

- 1) the adequacy of the documentation of the risk-management system and process and the organisation of the risk-control unit;
- 2) the integration of market risk measures into daily risk management and the integrity of the management information system;
- 3) the process that the credit institution employs for approving risk-measurement models and valuation systems that are used by front and back-office personnel;
- 4) the scope of market risks captured by the risk-measurement model and the validation of any significant changes in the risk-measurement process;
- 5) the accuracy and completeness of position data, the accuracy and appropriateness of volatility and correlation assumptions, and the accuracy of valuation and risk sensitivity calculations;
- 6) the verification process that the credit institution employs to evaluate the consistency, timeliness and reliability of data sources used to run internal models, including the independence of such data sources;
- 7) the verification process that the credit institution uses to evaluate back-testing that is conducted to assess the internal models' accuracy.

§ 309. Validation of models

(1) Credit institutions shall have processes in place to ensure that their internal models have been adequately validated by suitably qualified parties independent of the development process to ensure that they are conceptually sound and adequately capture all material risks. The validation shall be conducted when the internal model is initially developed and when any significant changes are made to the internal model. The validation shall also be conducted on a periodic basis but especially where there have been any significant structural changes in the market or changes to the composition of the portfolio which might lead to the internal model no longer being adequate. As techniques and best practices evolve, credit institutions shall avail themselves of these advances.

(2) Internal model validation shall not be limited to back-testing. The validation shall, at a minimum, include the following:

- 1) tests to demonstrate that any assumptions made within the internal model are appropriate and do not underestimate or overestimate the risk;
- 2) in addition to the back-testing programmes described in subsection (3) of this section, credit institutions shall carry out their own internal model validation tests in relation to the risks and structures of their portfolios;
- 3) the use of hypothetical portfolios to ensure that the internal model is able to account for particular structural features that may arise, for example material basis risks and the concentration risk.

(3) The credit institution shall monitor the accuracy and performance of its model by conducting a back-testing programme. The back-testing has to provide for each banking day a comparison of the one-day value-at-risk measure generated by the credit institution's model for the portfolio's end-of-day positions to the one-day change of the portfolio's value by the end of the subsequent banking day.

(4) The Financial Supervision Authority is entitled to examine the credit institution's capability to perform back-testing on both actual and hypothetical changes in the portfolio's value. The Financial Supervision Authority is entitled to examine the credit institution's capability to perform back-testing on the results produced with the model as regards hypothetical trading (using hypothetical changes in the portfolio's value by the end of the subsequent banking day, assuming unchanged positions), actual trading (excluding fees, commissions, and net interest income) or both. The Financial Supervision Authority may require credit institutions to take appropriate measures to improve their back-testing programme if deemed deficient.

§ 310. Using internal models to calculate capital requirements for specific interest rate and equity position risks

(1) For the purpose of calculating capital requirements for specific risk associated with traded debt and equity positions, the Financial Supervision Authority may recognise the use of a credit institution's internal model if, in addition to compliance with the conditions in the remainder of this Division, the internal model meets the following conditions:

- 1) it explains the historical price volatility in the portfolio;
- 2) it adequately captures the concentration risk both in terms of limited liquidity of positions and changes of composition of the portfolio;
- 3) it is robust to an adverse environment;
- 4) it is validated through back-testing aimed at assessing whether specific risk is being accurately captured. If back-testing is performed on the basis of relevant sub-portfolios, these must be chosen in a consistent manner;
- 5) it captures name-related basis risk, i.e. it is sensitive to material differences between similar but not identical positions;
- 6) it adequately captures event risk.

(2) For the purpose of calculating capital requirements for specific risk associated with traded debt and equity positions, the Financial Supervision Authority may recognise the use of a credit institution's internal model if, in addition to compliance with the conditions in subsection (1) of this section the credit institution also meets the following conditions:

- 1) Where a credit institution is subject to event risk that is not appropriately reflected in its value-at-risk measure, because it is beyond the 10-day holding period and 99 percent confidence interval (low probability and high severity

events), the credit institution shall ensure that the impact of such events is factored in to its internal capital assessment.

2) The credit institution's internal model shall conservatively assess the risk arising from less liquid positions and positions with limited price transparency under realistic market scenarios. Proxies shall be appropriately conservative and may be used only where available data is insufficient or is not reflective of the true volatility of a position or portfolio.

(3) As techniques and best practices evolve, credit institutions shall avail themselves of these advances.

(4) The credit institution shall have an approach in place to capture, in the calculation of its capital requirements, the default risk of its trade portfolio positions that is incremental to the default risk captured by the value-at-risk measure. To avoid double counting, a credit institution may, when calculating its incremental default risk charge, take into account the extent to which default risk has already been incorporated into the value-at-risk measure, especially for risk positions that could and would be closed within 10 days in the event of adverse market conditions or other indications of deterioration in the credit environment. Where a credit institution captures its incremental default risk through a surcharge, it shall have in place methodologies for validating the measure.

(5) The credit institution shall demonstrate that the approach used to calculate capital requirements for the default risk that has not been captured by the value-at-risk method meets soundness standards comparable to the approach set out in Subdivision 2 of Division 2 of this Chapter, under the assumption of a constant level of risk, and adjusted where appropriate to reflect the impact of liquidity, concentrations, hedging and optionality.

(6) A credit institution that uses internal models to calculate capital requirements for specific risk associated with traded debt and equity positions, but does not capture the incremental default risk through an internally developed approach shall calculate the surcharge in accordance with the provisions of Subdivision 1 or Subdivision 2 of Division 2 of this Chapter.

(7) With respect to traditional or synthetic securitisation exposures that would be subject to a deduction treatment under subsection 8 (1) or risk-weighted at 1250% as set out in Subdivision 4 of Division 2 of this Chapter, these positions shall be subject to a capital charge that is no less than set forth under that treatment. Credit institutions that are dealers in these exposures may apply a different treatment where they can demonstrate to the Financial Supervision Authority, in addition to trading intent, that a liquid two-way market exists for the securitisation exposures. In the case of synthetic securitisation exposures that rely solely on credit derivatives, the credit institution shall demonstrate to the Financial Supervision Authority that such a market exists for the securitisation exposures themselves or all their constituent risk components. For the purposes of this section, a two-way market is deemed to exist where there are independent good faith offers to buy and sell so that a price reasonably related to the last sales price or current good faith competitive bid and offer quotations can be determined within one day and settled at such a price within a relatively short time conforming to trade custom. For a credit institution to apply a different treatment, it shall have sufficient market data to ensure that it fully captures the concentrated default risk of these exposures in its internal approach for measuring the incremental default risk in accordance with the standards set out above.

(8) Credit institutions using internal models which are not recognised in accordance with this Division shall be subject to a separate capital charge for specific risk as calculated according to Subdivision 2 of Division 6 of this Chapter.

§ 311. Multiplication factor and plus-factor in the calculation of capital requirements

(1) For the purposes of clause 312 2) of this Decree, the results of the credit institution's own calculation shall be scaled up by a multiplication factor of at least 3.

(2) The multiplication factor shall be increased by a plus-factor of between 0 and 1 in accordance with Table 1, depending on the number of overshootings for the most recent 250 banking days as evidenced by the credit institution's back-testing. Overshootings shall be calculated consistently on the basis of back-testing either on actual or on hypothetical changes in the portfolio's value. An overshooting is a one-day change in the portfolio's value that exceeds the related one-day value-at-risk measure generated by the credit institution's model. For the purpose of determining the plus-factor the number of overshootings shall be assessed at least quarterly.

(3) Number of overshootings	(4) Plus-factor
(5) Fewer than 5	(6) 0.00
(7) 5	(8) 0.40
(9) 6	(10) 0.50
(11) 7	(12) 0.65
(13) 8	(14) 0.75
(15) 9	(16) 0.85
(17) 10 or more	(18) 1.00

(3) The Financial Supervision Authority may, in exceptional cases, waive the requirement to increase the multiplication factor by the plus-factor set out in the table in subsection (2) of this section, if the credit institution has demonstrated to the satisfaction of the Financial Supervision Authority that such an increase is unjustified and that the model is basically sound.

(4) If numerous overshootings indicate that the model is not sufficiently accurate, the Financial Supervision Authority shall revoke the model's recognition or impose appropriate measures to ensure that the model is improved promptly.

(5) In order to allow the Financial Supervision Authority to monitor the appropriateness of the plus-factor on an ongoing basis, credit institutions shall notify promptly, and in any case no later than within five business days, the Financial Supervision Authority of overshootings that result from their back-testing programme and that would imply an increase of a plus-factor according to the table in subsection (2) of this section.

§ 312. Capital requirement for trade portfolio risks

Each credit institution shall meet a capital requirement expressed as the higher of:

- 1) its previous day's value-at-risk measure calculated according to the parameters specified in this Division plus, where appropriate, the incremental default risk charge determined under section 310;
- 2) an average of the daily value-at-risk measures on each of the preceding 60 banking days, multiplied by the factor mentioned in subsection 311 (1), adjusted by the factor referred to in subsection 311 (2). The incremental default risk charge determined under section 310 shall be added to the result, if appropriate.

§ 313. Minimum requirements on calculating risk measures

The calculation of the value-at-risk measure shall be subject to the following minimum requirements:

- 1) at least daily calculation of the value-at-risk measure;
- 2) a 99th percentile, one-tailed confidence interval;
- 3) a 10-day equivalent holding period;
- 4) an effective historical observation period of at least one year except where a shorter observation period is justified by a significant upsurge in price volatility;
- 5) three-monthly data set updates.

§ 314. General requirements

The risk-measurement model shall capture a sufficient number of risk factors, depending on the level of activity of the credit institution in the respective markets and in particular the following:

- 1) The risk-measurement model shall accurately capture all the material price risks of options or option-like positions and that any other risks not captured by the model are covered adequately by own funds.
- 2) The risk-measurement system shall incorporate a set of risk factors corresponding to the interest rates in each currency in which the credit institution has interest rate sensitive on or off-balance sheet positions. The credit institution shall model the yield curves using one of the generally accepted approaches. For material exposures to

interest-rate risk in the major currencies and markets, the yield curve shall be divided into a minimum of six maturity segments, to capture the variations of volatility of rates along the yield curve. The risk-measurement system shall also capture the risk of less than perfectly correlated movements between different yield curves.

3) The risk-measurement system shall incorporate risk factors corresponding to gold and to the individual foreign currencies in which the credit institution's positions are denominated. For CIUs the actual foreign-exchange positions of the CIU shall be taken into account in calculating the net open positions of currencies. Credit institutions may rely on third party reporting of the foreign-exchange positions of the CIU, where the correctness of such reports is adequately ensured. If a credit institution is not aware of the foreign-exchange positions of a CIU, such positions shall be treated in accordance with section 257.

4) The risk-measurement system shall use a separate risk factor at least for each of the equity markets in which the credit institution holds significant positions.

5) The risk-measurement system shall use a separate risk factor at least for each commodity in which the credit institution holds significant positions. The risk-measurement system shall also capture the risk of less than perfectly correlated movements between similar, but not identical, commodities and the exposure to changes in forward prices arising from maturity mismatches. The risk-measurement system shall also take account of market characteristics, notably delivery dates and the scope provided to traders to close out positions.

§ 315. Using empirical correlations

A credit institution may use empirical correlations within risk categories and across risk categories if the institution's system for measuring correlations is sound and implemented with integrity.

Subdivision 5 Capital requirements for large exposures

§ 316. General requirements specific to exposures of trade portfolios exceeding the limits of risk concentration

For the exception set out in clause 85² (4) 3) of the Credit Institutions Act capital requirements shall be calculated in accordance with sections 317 and 318 of this Decree.

§ 317. Calculating the exposures of trade portfolios that exceed the limits of risk concentration

Additional capital requirements shall be calculated by selecting those components of the total trading exposure to the client or group of clients in question which attract the highest capital requirements according to Subdivisions 2 and 3 of Division 6 of this Chapter, the sum of which equals the amount of the excess referred to in subsections 85 (4) and (5) of the Credit Institutions Act. The exposure values shall be calculated in accordance with subsection 331 (4) of this Decree.

§ 318. Calculating additional capital requirements for risks arising from trade portfolio exposures exceeding the limits of risk concentration

(1) Additional capital requirements shall be calculated as follows:

1) The exposures exceeding the limits shall be determined in accordance with section 317.

2) Where the excess has not persisted for more than 10 days, the additional capital requirement shall be 200% of the requirements referred to in clause 1), on these exposures.

3) As from 10 days after the excess has occurred, the capital requirements for specific risk associated with the exposures mentioned in clause 1) of this subsection and/or the capital requirements calculated for a settlement/delivery risk and counterparty credit risk shall be multiplied by the corresponding conversion factor set out in subsection (2) on the basis of the size of the excess.

(2) The following conversion factors shall be applied to the excess over the limits:

Excess over the limits (% of own funds)	Conversion factors
--	-------------------------------

Up to 40%	200%
From 40% kuni 60%	300%
From 60% kuni 80%	400%
From 80% kuni 100%	500%
From 100% kuni 250%	600%
Over 250%	900%

Division 7 Operational risk

Subdivision 1 Basic Indicator Approach to operational risk

§ 319. Calculating capital requirement for operational risk under the Basic Indicator Approach

(1) Pursuant to subsection 86³⁸ (1) of the Credit Institutions Act, under the Basic Indicator Approach the capital requirement for operational risk is equal to 15% of the credit institution's net income from operations. The capital requirement shall be calculated according to the following formula:

$$\text{Capital requirement} = [\sum(0.15 * \text{net income from operations}_{1...n})]/n ,$$

where

the *net income from operations* shall be calculated in accordance with subsections (2) and (3) of this section; *n* is the number of years to be taken into account in the calculation of the net income under subsection (2) of this section.

(2) The net income from operations shall be calculated in accordance with subsection 86³⁸ (2) of the Credit Institutions Act. The net income from operations is equal to the average over three years of the sum of net interest income and net non-interest income, calculated on the basis of audited data for the last three financial years.

(3) The following items shall be included in the calculation of net income from operations:

- 1) interest receivable;
- 2) interest payable;
- 3) dividends receivable;
- 4) commissions and fees receivable;
- 5) commissions and fees payable;
- 6) gains/losses on instruments in the trade portfolio;
- 7) gains/losses on hedging transactions;
- 8) gains/losses on exchange-rate variations;
- 9) gains/losses on realisation of assets held for sale;
- 10) other operating income.

(4) Gains/losses on the sale of non-trade portfolio instruments, gains/losses on extraordinary or irregular items, income derived from insurance, costs relating to any provisions, and operating expenses shall not be included in the calculation of net income from operations. Operating expenses shall include fees paid for outsourcing services rendered by third parties which are not a parent or subsidiary of the credit institution or a subsidiary of a parent which is also the parent of the credit institution, or by an institution subject to statutory supervision equivalent to this Decree.

(5) If for any given year of observation the sum of net interest income and net non-interest income is negative or equal to zero, this figure shall not be taken into account in the calculation of the three-year average and the net income from operations shall be calculated on the basis of positive figures and the years in which the figure was positive.

(6) If any of the last three financial years was shorter or longer than usual, the data shall be restated into the equivalent

of twelve months on a pro rata basis.

(7) If the credit institution has operated for less than a year, the sum of net interest income and net non-interest income estimated for the first year in the business plan shall serve as the basis for calculating the capital requirement for operational risk.

Subdivision 2 Standardised Approach to operational risk

§ 320. Calculating capital requirement for operational risk under the Standardised Approach

(1) Pursuant to subsection 86³⁹ (5) of the Credit Institutions Act, under the Standardised Approach the capital requirement for operational risk is the average over three years of the sums of capital requirements against operational risk, calculated each year across the business lines referred to in the table in subsection (4) of this section. In each year, a negative capital requirement in one business line, resulting from a negative net income from operations, may be imputed to the whole. Where the aggregate capital requirement across all business lines within a given year is negative, then the input to the average for that year shall be zero in the formula set out in this subsection.

$$\text{Capital requirement} = \{\sum_{\text{year } 1-3} \max[(\beta_{1-8} \times \text{net income from operations}_{1-8}), 0]\} / 3$$

(2) The capital requirement of each business line shall be determined as a certain percentage of the net income from operations. The percentages (β -coefficients) to be applied are set out in the table in subsection (4) of this section.

(3) The net income from operations shall be calculated separately for each business line. In the calculation of net income from operations, account shall be taken of the provisions of subsections 319 (3) and (4).

(4) Business lines and their β -coefficients to be included in the calculation of capital requirements are the following:

Business line	Examples of activities	Percentage (β)
Corporate finance	Organising and underwriting public and private placements of securities; advice on capital planning and strategy and on issues relating to mergers and amalgamations; investment advice; investment research and financial analysis and other forms of general recommendation relating to transactions in financial instruments	18%
Trading and sales	Trading in securities and other instruments; execution of orders on behalf of clients; management of long-term/strategic investments; margin lending and repurchase transactions; treasury	18%
Retail banking	Acceptance of deposits and other repayable funds from individual physical persons or small and medium-sized entities meeting the criteria for the retail exposure class; lending; leasing; guarantees; card services	12%
Commercial banking	Acceptance of deposits and other repayable funds; lending; leasing; guarantees; export financing; project financing; factoring	15%
Payment and settlement	Money transmission services; issuing and administering means of payment	18%
Agency services	Safekeeping and administration of financial instruments for the account of clients; administering margin lending	15%
Asset	Portfolio management; managing of CIUs; other forms of	

management	asset management	
Retail brokerage	Reception and transmission of orders in relation to one or more financial instruments from individual physical persons or small and medium-sized entities meeting the criteria for the retail exposure class; execution of orders on behalf of clients	12%

§ 321. Principles of business line mapping

(1) In mapping business lines and their income and expenses, credit institutions shall guide themselves by the provisions of clause 55 (2¹) 2) and subsections 86³⁹ (1)-(3) of the Credit Institutions Act, taking into account the following:

- 1) Credit institutions may use internal pricing methods to allocate the net income from operations between business lines, as a result of which costs generated in one business line which are imputable to a different business line may be reallocated to the business line to which they pertain, for instance by using a treatment based on internal transfer costs between the two business lines.
- 2) The mapping of activities into business lines for operational risk capital purposes must be consistent with the categories used for credit and market risks.

(2) The process of mapping business lines and their income and expenses shall be subject to review by the internal audit unit of the credit institution or an equivalent independent party.

§ 322. Requirements on using the Standardised Approach to operational risk

In addition to general risk management standards, credit institutions shall meet the following requirements, in the case of which account shall be taken of the size and scale of activities of the credit institution and to the principle of proportionality. A credit institution shall, *inter alia*:

- 1) define operational risk and its types in the appropriate policies and procedures;
- 2) establish written policies and procedures to evaluate and manage the exposure to operational risk, including to low-frequency high-severity events;
- 3) implement processes to manage exposures to operational risk;
- 4) determine its exposures to operational risk and monitor relevant data concerning operational risk, including data concerning material operational risk losses;
- 5) implement an operational risk management system which is closely integrated into the risk management processes of the credit institution. Its output must be an integral part of the process of monitoring and controlling the credit institution's operational risk profile;
- 6) implement a system of management reporting that provides operational risk reports to the management board and supervisory board among other relevant functions, and develop policies and procedures for adopting decisions and taking appropriate action according to the information within the management reports;
- 7) develop and implement business continuity plans to ensure the credit institution's ability to operate on an ongoing basis in all material business processes and limit losses in the event of severe business disruption.

Subdivision 3 Alternative Standardised Approach to operational risk

§ 323. Calculating capital requirement for operational risk under the Alternative Standardised Approach

(1) Under the Alternative Standardised Approach, the capital requirement for operational risk shall be equal to the sum of capital requirements calculated for the business lines specified in section 320.

(2) Under the Alternative Standardised Approach, the rate of capital requirement applicable to retail banking and commercial banking business lines shall be replaced by 3.5% of the three-year average of the total nominal amount of loans and advances.

(3) For retail banking and commercial banking business lines, the loans and advances shall consist of the total drawn amounts in the corresponding credit portfolios. For the commercial banking business line, securities held in the non-trade portfolio shall also be included.

§ 324. Qualifying criteria for applying the Alternative Standardised Approach

To receive the approval of the Financial Supervision Authority to apply the Alternative Standardised Approach, a credit institution shall meet the requirements established in subsections 86⁴⁰ (2) and (3) of the Credit Institutions Act and the qualifying criteria set out in subsections 319 (1) and (2) of this Decree.

Subdivision 4 Advanced Measurement Approaches

§ 325. Qualifying criteria for applying Advanced Measurement Approaches

To receive the approval of the Financial Supervision Authority to apply an Advanced Measurement Approach, a credit institution shall meet the criteria specified in sections 326 and 327 and comply with the following requirements:

- 1) establish written policies and procedures to evaluate and manage the exposure to operational risk, including to low-frequency high-severity events;
- 2) define operational risk and its types in the appropriate policies and procedures;
- 3) implement processes to manage exposures to operational risk;
- 4) develop and implement business continuity plans to ensure the credit institution's ability to operate on an ongoing basis in all material business processes and limit losses in the event of severe business disruption.

§ 326. Qualitative standards for applying Advanced Measurement Approaches

The system for measuring and managing operational risk shall meet the requirements established in section 86⁴¹ of the Credit Institutions Act. Credit institutions shall establish policies and procedures to ensure the compliance of the system for measuring and managing operational risk.

§ 327. Quantitative standards for applying Advanced Measurement Approaches

(1) Credit institutions shall calculate their capital requirement for operational risk as comprising both expected loss and unexpected loss, except in the case described in subsection (2) of this section. The operational risk measure must capture potentially severe tail events, achieving a soundness standard comparable to a 99.9% confidence interval over a one-year period.

(2) Credit institutions may exclude expected loss from the calculation of capital requirement if they can demonstrate that expected loss is adequately captured in their internal procedures and pricing practices.

(3) To meet the soundness standard set out in subsection (1) of this section, the operational risk measurement system of a credit institution shall comprise the use of internal and external data, scenario analysis and factors reflecting the business environment and internal control systems, and conform, *inter alia*, to the following requirements:

- 1) The risk measurement system shall capture the major drivers of risk affecting the shape of the tail of the loss estimates.
- 2) Correlations in operational risk losses across individual operational risk estimates may be recognised only if the systems for measuring correlations are sound and take into account the uncertainty surrounding any such correlation estimates, particularly in periods of stress.
- 3) The credit institution must validate its correlation assumptions using appropriate quantitative and qualitative techniques.
- 4) Credit institutions shall be able to map their historical internal loss data into the business lines specified in the table in section 320 and into the event types specified in section 329.
- 5) Credit institutions shall have documented, objective criteria for allocating losses to the specified business lines and

event types.

- 6) The operational risk losses that are related to credit risk shall be recorded in the operational risk databases and be accompanied by references to the relation with credit risk.
- 7) The operational risk losses that are related to credit risk shall not be subject to the operational risk charge, as long as they are included in the calculation of capital requirements against credit risk.
- 8) Operational risk losses that are related to market risks shall be included in the calculation of the capital requirement for operational risk.
- 9) Credit institutions shall define appropriate minimum loss thresholds for internal loss data collection.
- 10) Aside from information on gross loss amounts, credit institutions shall collect information about the date of the event, any recoveries of gross loss amounts, as well as information about the drivers or causes of the loss event.
- 11) Credit institutions shall have specific criteria for assigning loss data arising from an event in a centralised function or an activity that spans more than one business line, as well as from related events over time.
- 12) Credit institutions shall have documented processes and procedures for assessing the on-going relevance of historical loss data, including those situations in which judgement overrides, scaling, or other adjustments may be used, to what extent they may be used and who is authorised to make such decisions.
- 13) Credit institutions shall use relevant external data in their operational risk measurement systems and apply a systematic process. A credit institution shall have a systematic process for determining the situations for which external data must be used and the methodologies used to incorporate the data in its measurement system.
- 14) The conditions and practices for external data use shall be regularly reviewed and altered as appropriate. The regular reviews shall be conducted by the internal audit unit of the credit institution or an equivalent independent party.
- 15) A credit institution's risk assessment methodology shall capture key business environment and internal control factors that can change its operational risk profile.
- 16) The choice of each internal control factor shall be justified as a meaningful driver of risk, based on experience and involving the expert judgment of the affected business areas.
- 17) The sensitivity of risk estimates to changes in the factors and the relative weighting of the various factors shall be well reasoned.
- 18) In addition to capturing changes in risk due to improvements in risk controls, the operational risk measurement system must also capture potential increases in risk due to greater complexity of activities or increased business volume.

(4) The methodology for assessing business environment and internal control factors shall be duly documented and subject to independent review by the internal audit unit of the credit institution or an equivalent independent party. Over time, the methodology for assessing business environment and internal control factors and the outcomes of applying the methodology shall be compared to actual internal loss experience and relevant external data.

§ 328. Impact of insurance and other risk transfer mechanisms

(1) Credit institutions shall recognise the impact of insurance on the capital requirement for operational risk subject to the conditions set out in subsections (4) and (5) of this section. Other risk transfer mechanisms may be recognised only provided that the mechanisms used contribute to a noticeable risk mitigating effect.

(2) The insurance provider shall be authorised to provide insurance or re-insurance and have an external assessment from an eligible ECAI which corresponds to credit quality step 3 or above pursuant to the procedure established Sub-subdivision 2 of Subdivision 1 of this Division.

(3) The insurance and the credit institutions' insurance framework shall meet the following conditions:

- 1) The insurance policy must have an initial term of no less than one year. For policies with a residual term of less than one year, the credit institution shall make appropriate haircuts reflecting the declining residual term of the policy, up to a full 100% haircut for policies with a residual term of 90 days or less.
- 2) The insurance policy shall have a minimum notice period for cancellation of the contract of 90 days.
- 3) The insurance policy has no exclusions or limitations triggered by supervisory actions or, in the case of a failed credit institution, that preclude the credit institution, or its receiver or liquidator, from recovering for damages suffered or expenses incurred by the credit institution, except in respect of events occurring after the initiation of receivership or

liquidation proceedings in respect of the credit institution; provided that the insurance policy may exclude any fine, penalty, or punitive damages resulting from actions by the competent authorities.

4) The risk mitigation calculations shall reflect the recognition of the impact of insurance coverage in the overall determination of operational risk capital in a transparent and consistent manner.

5) The insurance coverage shall be provided by a third party entity. In the case of insurance through subsidiaries and affiliates, the exposure has to be laid off to an independent third party entity.

6) The framework for recognising insurance coverage shall be well reasoned and duly documented.

(4) The methodology for recognising insurance coverage shall capture the following elements through discounts or haircuts in the amount of insurance recognition:

- 1) the residual term of an insurance policy, where less than one year;
- 2) a policy's cancellation terms, where less than one year;
- 3) the uncertainty of payment as well as mismatches in coverage of insurance policies.

(5) The capital requirement alleviation arising from the recognition of insurance coverage shall not exceed 20% of the capital requirement for operational risk before the recognition of risk-mitigation techniques.

§ 329. Classification of loss event types arising from operational risk

Event-type category	Definition
Internal fraud	Losses due to acts of a type intended to defraud, misappropriate property or circumvent legislation or internal regulations. Examples include events relating to employment practices and discrimination, which involve at least one internal party.
External fraud	Losses due to acts of a type intended to defraud, misappropriate property or circumvent legislation, by a third party.
Employment practices and workplace safety	Losses arising from acts inconsistent with employment, health or safety regulations or agreements, from payment of personal injury claims, or from discrimination events.
Clients, products and business practices	Losses arising from an unintentional or negligent failure to meet a professional obligation to clients (including fiduciary and suitability requirements), or from the nature or design of a product.
Damage to physical assets	Losses arising from loss or damage to physical assets due to natural disaster or other events.
Business disruption and system failures	Losses arising from disruption of business or system failures.
Execution, delivery & process management	Losses from failed transaction processing or process management, from relations with trade counterparties and vendors.

Chapter 4 CONCENTRATION OF EXPOSURES

§ 330. Definitions

(1) For the purposes of applying this Chapter, the term "credit institution" shall cover the following:

- 1) a credit institution, including its branches in third countries; and
- 2) any private or public undertaking, including its branches, which meets the definition of "credit institution" and has been authorised in a third country.

(2) The term "group of connected persons" shall be used within the meaning of subsection 85 (3) of the Credit Institutions Act. In addition, the following shall be taken into account in determining connectedness:

- 1) shared owners;
- 2) shared managers;
- 3) mutual guarantees;
- 4) mutual dependency in the field of business which cannot be renounced within a short period of time and all other connections, provided that they result in a situation where, if one of the persons were to experience financial problems, the other or others would also be likely to encounter repayment difficulties.

(3) "Net exposure" means the exposure to a client of the credit institution or to a group of connected persons, less the sum of liabilities and off-balance sheet claims to that client or group of connected persons.

§ 331. Calculation of exposures

(1) Exposures shall be calculated separately with regard to each client or group of connected persons.

(2) Where a credit institution calculates capital requirements for its trade portfolio risks, it shall calculate separately its non-trade portfolio and trade portfolio exposures to each individual client.

(3) Where a credit institution has been exempted from the calculation of capital requirements for its trade portfolio risks, it shall calculate its exposures to an individual client pursuant to the procedure for calculating non-trade portfolio exposures established in Division 2 of Chapter 3 of this Decree.

(4) The exposures to individual clients which arise on the trading book shall be calculated by summing the following positions:

- 1) the excess of the credit institution's long positions over its short positions, where the absolute value of a long position exceeds the absolute value of a short position, with the net position in each of the different instruments being calculated according to the methods set out in Subdivision 2 of Division 6 of Chapter 3;
- 2) the net exposure, in the case of issue of financial instruments or underwriting of an equity issue. The net exposure shall be calculated by deducting, from the positions arising from contracts underwritten by the credit institution, those underwriting positions which are subscribed or sub-underwritten by third parties on the basis of formal agreements. Net exposures shall be reduced by the reduction factors applicable to positions in underwriting commitments as set out in section 281;
- 3) the exposures that arise from transactions, agreements and contracts related to a settlement/delivery risk and counterparty credit risk, with such exposures being calculated in accordance with Subdivision 3 of Division 6 of Chapter 3, for the calculation of exposure values.

(5) The exposures to groups of connected persons on the trading book shall be calculated by summing the exposures to individual clients in a group, as calculated under subsection 331 (2).

(6) The exposures to individual clients which arise on the non-trade portfolio shall be calculated by summing the following positions:

- 1) the balance-sheet value of the assets. Where the write-down of an asset is recognised on a separate row of the balance sheet, the asset shall be included in the net value.
- 2) the nominal value of on-balance sheet liabilities, with credit limits recognised to the extent of the undrawn portion of the limit;

3) derivative instruments to the extent calculated pursuant to the procedure for calculating derivative exposures established in Division 2 of Chapter 3 of this Decree.

(7) The aggregate exposure to a client or group of connected persons shall be calculated by summing exposures arising from the trade portfolio and the non-trade portfolio, with account taken of the reductions specified in section 332.

§ 332. Reductions applied in the calculation of non-trade portfolio exposures

(1) The positions specified in this section may be deducted in the calculation of exposures:

(2) claims and contingent claims that would be assigned a 0% risk weight under the Standardised Approach set out in Sub-subdivision 3 of Subdivision 1 of Division 2 of Chapter 3;

(3) exposures fully secured by collateral in the form of debt securities issued by central governments or central banks, international organisations, multilateral development banks, Member States' regional governments, local authorities or public sector entities, which securities constitute claims on their issuer which would be assigned a 0% risk weight under the Standardised Approach set out in Sub-subdivision 3 of Subdivision 1 of Division 2 of Chapter 3;

(4) exposures fully secured by collateral in the form of cash deposits placed with the lending credit institution or with a credit institution which is the parent undertaking or a subsidiary of the lending institution; as well as cash received under a credit linked note issued by the credit institution and loans and deposits of a counterparty to or with the credit institution which are subject to an on-balance sheet netting agreement recognised under Sub-subdivision 1 of Subdivision 3 of Division 2 of Chapter 3;

(5) exposures fully secured by collateral in the form of certificates of deposit issued by the lending credit institution or by a credit institution which is the parent undertaking or a subsidiary of the lending credit institution and lodged with either of them;

(6) claims on and other exposures to credit institutions or investment firms, with a maturity of one year or less, but not constituting such institutions' own funds;

(7) covered bonds falling within the terms of section 36;

(8) holdings in insurance and reinsurance companies up to 40% of the own funds of the credit institution acquiring such a holding;

(9) exposures secured by collateral in the form of securities other than those referred to in subsection (3) of this section. The securities used as collateral and the extent of collateralisation shall meet the following conditions:

1) the market value of the securities used as collateral shall exceed the exposures guaranteed;

2) the securities shall be either traded on a stock exchange or effectively negotiable and regularly quoted on a market operated under the auspices of recognised professional operators;

3) the excess value required under clause 1) of this subsection shall be 100%. It shall, however, be 150% in the case of shares and 50% in the case of debt securities issued by credit institutions, investment firms, Member States' regional governments or local authorities, other than the debt securities that would be assigned a 0% risk weight under the Standardised Approach set out in Sub-subdivision 3 of Subdivision 1 of Division 2 of Chapter 3;

4) the maturity of the securities shall not be different from the maturity of the exposures guaranteed;

5) the securities shall not constitute credit institutions' own funds.

(10) 50% of the value of claims complying with the conditions of loans secured by mortgages specified in section 34 or by shares in Finnish residential housing companies, operating in accordance with the Finnish Housing Company Act of 1991, which would be assigned a 35% risk weight under the Standardised Approach. The borrower shall use or intend to use the residential house encumbered with the mortgage as his or her residence or for letting out as residence. Valuation of the property encumbered with the mortgage shall be carried out at least once a year.

(11) 50% of the off-balance-sheet items that are classified as medium/low-risk off-balance-sheet items for the purposes of determining the credit risk of off-balance-sheet items as specified in Subdivision 5 of Division 2 of Chapter 3;

(12) off-balance-sheet items that are classified as low-risk off-balance-sheet items for the purposes of determining the credit risk of off-balance-sheet items as specified in Subdivision 5 of Division 2 of Chapter 3, to the extent that an agreement has been concluded with the client or group of connected persons under which the exposure may be incurred only if it has been ascertained that it will not cause the limits applicable under subsections 85 (4)-(7) of the Credit Institutions Act to be exceeded.

§ 333. Specifications of calculating exposure values due to risk mitigation and the Internal Ratings Based Approach

(1) Where a credit institution uses the Financial Collateral Comprehensive Method set out in section 137, it may, in the alternative to availing the reductions permitted under subsections 332 (3)-(5) and (9), use a value lower than the value of the exposure. The lower value shall not be lower than the total of the fully-adjusted exposure values of the credit institution's exposures to the client or group of connected persons.

(2) The "fully adjusted exposure value" means that calculated under the Financial Collateral Comprehensive Method as set out in section 138, taking into account volatility adjustments and any maturity mismatch. When using that method, a credit institution shall meet the requirements on accepting collateral, as well as other requirements established in Sub-subdivision 1 of Subdivision 3 of Division 2 of Chapter 3.

(3) Where a credit institution uses the Advanced IRB Approach set out in Subdivision 2 of Division 2 of Chapter 3, it may, in calculating the value of its exposures, estimate the effects of financial collateral on these exposures. Where a credit institution uses its own estimates of the effects of financial collateral, it shall do so on a basis consistent with the approach adopted in the calculation of capital requirements. When using said method, the credit institution shall meet the requirements on accepting financial collateral established in Sub-subdivision 1 of Subdivision 3 of Division 2 of Chapter 3.

(4) A credit institution availing itself of the right set out in subsection (3) of this section shall demonstrate to the Financial Supervision Authority its capability of estimating the effects of financial collateral on its exposures separately from other LGD-relevant aspects.

(5) Where a credit institution that uses the Advanced IRB Approach does not avail itself of the right set out in subsection (3) of this section, it may use the approach set out in subsection 332 (9) or in subsection (1) of this section. A credit institution shall use only one of these two methods.

(6) A credit institution using the rights specified in subsections (1) and (3) shall conduct periodic stress tests of their risk concentrations, including in relation to the realisable value of any collateral taken. These periodic stress tests shall address risks arising from potential changes in market conditions that could adversely impact the credit institutions' adequacy of own funds and risks arising from the realisation of collateral in stressed situations. The credit institution shall satisfy the Financial Supervision Authority that the stress tests carried out are adequate and appropriate for the assessment of such risks.

(7) In monitoring the concentration of exposures, credit institutions may treat claims and other exposures on recognised third-country investment firms and recognised clearing houses and exchanges similarly to claims and exposures specified in subsection 332 (6).

(8) A credit institution shall immediately notify the Financial Supervision Authority of any exercise of the right specified in subsection (7) of this section.

§ 334. Calculation of limits

(1) To calculate the limits of concentration of exposures, the aggregate exposure to a client or a group of connected

persons shall be divided by the amount of the credit institution's own funds and the result shall be multiplied by 100.

(2) To calculate the aggregate concentration limit, the sum of the positions of all large-exposure clients or groups of connected persons shall be divided by the amount of the credit institution's own funds and the result shall be multiplied by 100.

§ 335. Calculating the concentration of exposures of consolidation groups

(1) The concentration of exposures of the consolidation group of a credit institution shall be calculated in accordance with the provisions of this Chapter. The exposures shall be calculated on the basis of the consolidated data of the consolidation group.

(2) The limits of concentration of exposures of the consolidation group of a credit institution shall be calculated on the basis of the amount of the consolidation group's own funds.

Chapter 5 LIMITATIONS OF HOLDINGS

§ 336. Limitations on qualifying holdings

(1) The limitation to be applied to a qualifying holding is the relation of the value of the qualifying holding to the credit institution's own funds.

(2) The limitation to be applied to the sum of qualifying holdings is the relation of the sum of the values of qualifying holdings to the credit institution's own funds.

§ 337. Value of qualifying holding

The value of a share treated as a qualifying holding is the balance sheet value of the security.

§ 338. Calculation of limitations

To calculate the limitation, the qualifying holding or the sum of qualifying holdings shall be divided by the amount of the credit institution's own funds and the result shall be multiplied by 100.

§ 339. Calculation of limitations for consolidation groups of credit institutions

(1) For the consolidation group of a credit institution, the limitation shall be calculated in accordance with the provisions of this Chapter.

(2) The limitations on investments applicable to the consolidation group of a credit institution shall be calculated on the basis of the amount of the consolidation group's own funds.

Chapter 6 FINAL PROVISIONS

§ 340. Adjustment of own funds with unrealised gains and losses

The adjustments of own funds specified in clauses 7 (2) 3) and 4) of this Decree shall be applied with prospective effect starting from the date of application of this Decree. Unrealised gains and losses of previous periods shall not be taken into account in the adjustment of own funds.

§ 341. Entry into force of Decree

(1) For the purposes of calculating risk-weighted exposure amounts, credit institutions may until 31 December 2007 may apply Decree No. 12 of the Governor of the Bank of Estonia "Prudential ratios of credit institutions" (RTL 2002,

80, 1236; 2003, 3, 36; 39, 577; 2004, 41, 694; 2005, 22, 309; 49, 689; 2006, 14, 228) dated 2 July 2002 subject to the terms and conditions established in section 141¹ of the Credit Institutions Act.

(2) Subsection 36 (3) of this Decree shall be valid until 31 December 2010.

Andres Lipstok
Governor