

**From the Banking Regulation and Supervision Agency:**

**COMMUNIQUE ON CREDIT RISK MITIGATION TECHNIQUES**

(Published in the Official Gazette dated November 6, 2014, numbered 28812)

**SECTION ONE**

**STARTING PROVISIONS**

**PART I**

**Purpose and Scope, Grounds and Definitions**

**Objective and scope**

**ARTICLE 1 - (1)** The objective of this Communique is to set down procedures and principles relating to credit risk mitigation techniques to be used by banks in calculation of risk-weighted amount under the scope of Standardized Approach and risk weighted exposure amounts and expected loss under the scope of Foundation Internal Rating Based (IRB Approach).

**Basis**

**ARTICLE 2 - (1)** This Communique is issued by virtue of and in reliance upon articles 43, 45 and 93 of the Banking Law no. 5411 dated 19/10/2005, and article 4 of the Regulation on Measurement and Assessment of Capital Adequacy of Banks published on dated 28/6/2012 and numbered 28337 Official Gazette.

**Definitions and abbreviations**

**ARTICLE 3 - (1)** The terms used in this Regulation shall have the meanings designated to them below;

- a) Bank : Banks defined in Article 3 of Law,
- b) Senior claims: Senior claims defined in Article 3 of Regulation,
- c) Tranche: Tranche defined in Article 3 of Regulation,
- ç) Commodity : Commodity defined in Article 3 of Regulation,
- d) Funded credit protection: Funded credit protection defined in Article 3 of Regulation,
- e) Unfunded credit protection: Unfunded credit protection defined in Article 3 of regulation,
- f) Subordinated claims: Subordinated claims defined in Article 3 of Regulation,
- g) Law: Banking Law numbered 5411,
- ğ) Collective Investment Undertaking (CIU): Collective investment undertaking defined in Article 3 of Regulation,
- h) Protection buyer: Protection buyer defined in Article 3 of Regulation,
- ı) Protection seller: Protection seller defined in Article 3 of the Regulation;
- i) Protection amount: Protection amount defined in Article 3 of the Regulation,
- j) Credit rating agency (CRA): Credit rating agency defined in Article 3 of the Regulation,
- k) Credit risk mitigation: Credit risk mitigation defined in Article 3 of the Regulation,

- l) Credit linked note: Credit linked note defined in Article 3 of the Regulation,
- m) Credit default swap: Credit default swap defined in Article 3 of the Regulation,
- n) Board: Banking Regulation and Supervision Board,
- o) Agency: Banking Regulation and Supervision Agency,
- ö) Margin agreement: Margin agreement defined in Annex 2 of Regulation,
- p) Securities Financing Transactions: Repo, reverse repo, security lending and borrowing, and margin lending transactions,
- r) Master netting agreement: Master netting agreement defined in Article 3 of the Regulation,
- s) Reference obligation: Reference obligation defined in Article 3 of the Regulation,
- §) Standardized Approach: Approach described in Article 5 of Regulation,
- t) Foundation IRB Approach: Credit risk calculation approach where probability of default is estimated internally while loss given default and conversion factors are defined by Agency,
- u) Loss given default (LGD): The ratio of loss because of counterparty to the exposure at the instance of default,
- ü) Probability of default (PD): The probability that the counterparty will default in the following one year period,
- v) Recognized exchange: Recognized exchange defined in Article 3 of the Regulation,
- y) Total return swap: Total return swap defined in Article 3 of the Regulation,
- z) Volatility: Volatility defined in Article 3 of the Regulation,
- aa) Regulation: Regulation on Measurement and Assessment of Capital Adequacy of Banks published in Official Gazette dated as 28/6/2012 and numbered 28337

## **PART TWO**

### **Credit Risk Mitigation Techniques**

#### **Recognition of credit risk mitigation techniques**

**Article 4 -** (1) While calculating risk weighted exposure amounts according to standardized approach and risk weighted exposure amounts and expected loss according to Foundation IRB Approach, banks are allowed to take into account the effects of credit risk mitigation in accordance with the provisions of this Communique. Banks must have monitoring and control procedures and processes including strategy, consideration of the underlying credit, valuation, systems, management of concentration risk and risk of failure and loss of effectiveness of credit risk mitigation or fail of credit risk mitigation arising because of the use of credit risk mitigation for the risks including legal, operational, liquidity and market risks which can rise with the use of credit risk mitigation.

(2) Banks must have clear and robust procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring the default of the counterparty and liquidating the collateral are observed, and that collateral can be liquidated promptly.

(3) Agency may decide to limit the use of a particular credit risk mitigation technique in case that it sees a necessity based on the assessments about the adequacy of mentioned procedures and policies during audits it makes. Also, if Agency sees a shortfall at the obligatory disclosure requirements on financial tables and risk management (Pillar III requirements) it is not allowed to use the effect of credit risk mitigation.

(4) Recognition of credit risk mitigation for regulatory capital purposes is not allowed on claims for which an issue-specific rating already reflects that credit risk mitigation instrument.

## **Recognition of funded and unfunded credit protection**

**Article 5 -** (1) The credit risk mitigation agreements suitable to the policies and procedures for the methods of credit protection used and the methods must be legally binding and enforceable in the jurisdictions where the relevant sides are located.

(5) Banks must take all necessary precautions in order to guarantee the effectiveness of the risk mitigation and consider all risks related to the protection.

(6) For funded credit protection only the protection instruments listed on second section part one and protections through credit linked notes defined in second section part three are eligible.

(7) In order to assume that funded credit protection is eligible in case of the bankruptcy of obligor or, depending on the case, custodian/trustee or in case of the realization of any credit event defined in the agreement bank must have a right to liquidate timely or retain the protection instruments. There must not be any significant positive correlation between the value of credit protection instrument and the credit quality of the obligor.

(8) In order to assume the eligibility of the unfunded credit protection, the agreement must be legally binding and enforceable on the jurisdictions where the relevant sides are located. Only the unfunded protections listed on section two part two and the total return swap and the credit default swaps listed on section two part three are eligible.

(9) In order to recognize the credit protections banks must met the minimum requirements listed on section three.

### Use of credit risk mitigation techniques

**Article 6 -** (1) The risk weighted exposure amount and expected loss amount of any claim where the credit risk mitigation techniques are used can not be higher than of the same claim where such techniques are not used.

(10) Credit protections that are already reflected in the calculation of risk weighted exposure amount are not allowed to be taken into account again under the scope of this Communique.

(11) Cash, commodity or securities received, borrowed or acquired through repo or securities or commodities lending transactions are taken into account as collateral.

(12) Where more than one form of credit risk mitigation covers a single exposure, the mentioned exposure must be subdivided into parts covered by each type of credit risk mitigation tool and the risk-weighted exposure amount for each part obtained must be calculated separately in accordance with the provisions of this Communique and Regulation.

(13) Where there are different maturities of protections supplied by single counterparty, the approach explained in paragraph 4 must be used under the scope of standardized approach.

## **SECTION TWO**

### **Credit Protection Tools, Protection Providers and Credit Derivatives Recognized for Credit Risk Mitigation Techniques PART ONE**

## **Recognized Funded Credit Protection Tools for Credit Risk Mitigation Techniques**

### **On-balance sheet netting**

**Article 7** - (1) On-balance sheet netting of mutual claims between bank and its counterparty can be taken into account as an eligible form of funded credit protection. Without prejudice to Article 8, eligibility is limited to reciprocal cash balances between the bank and the counterparty. Banks may amend risk-weighted exposure amounts and, as relevant, expected loss amounts only for loans and deposits that they have received themselves and that are subject to an on-balance sheet netting agreement.

### **Master netting agreements**

**Article 8** - (1) Institutions adopting the Financial Collateral Comprehensive Method set out in Section Four Part Three may take into account the effects of bilateral netting contracts covering repurchase transactions, securities or commodities lending or borrowing transactions, or other capital market-driven transactions with a counterparty. Without prejudice to provision of Article 21 of Regulation, the collateral taken and securities or commodities borrowed within such agreements or transactions shall comply with the eligibility requirements for collateral set out in Articles 9 and 10.

### **Eligible financial collaterals**

**Article 9** - (1) The following financial instruments are allowed to be taken into account as collateral:

- a) Cash on deposit with, or cash assimilated instruments held by, the lending bank;
- b) Debt securities issued by central governments or central banks, rated by a CRA and associated with a credit quality step 4 or above under the rules for the risk weighting of exposures to central governments and central banks under Annex I of Regulation;
- c) Debt securities issued by banks and investment firms, rated by a CRA and are associated with credit quality step 3 or above under the rules for the risk weighting of exposures to banks and investment firms under Annex I of Regulation;
- d) Debt securities issued by other entities rated by a CRA and are associated with credit quality step 3 or above under the rules for the risk weighting of exposures to corporates under Appendix I of Regulation;
- e) Equities that are included in a main index or bonds convertible to such equities;
- f) Gold,
- g) Securitisation positions that are not re-securitisation positions, which have an external credit assessment by a CRA which are associated with credit quality step 3 or above under the rules for the risk weighting of securitisation exposures under the approach specified in Section Four, Part One of Communique on Securitization published of official gazette dated 28/6/2012 and numbered 28337.

(2) For the purposes of point (b) of first paragraph hereinabove, the debt instruments issued by central governments or central banks also include the following items:

- a) Debt securities issued by regional governments or local authorities, exposures to which are treated as exposures to the central government in whose jurisdiction they are

established under Annex I of the Regulation;

b) Debt securities issued by public sector entities which are treated as exposures to central governments in accordance with Annex I of the Regulation;

c) Debt securities issued by multilateral development banks to which a 0 % risk weight is assigned under Annex I of the Regulation;

(3) For the purposes of point (c) of paragraph 1, debt securities issued by banks and investment firms shall include all the following:

a) Debt securities issued by regional governments or local authorities other than the ones which are treated as exposures to central government of the jurisdiction in accordance with Annex I of Regulation,

b) Debt securities issued by public sector entities, exposures to which are treated as exposures to banks in accordance with Annex I of Regulation,

c) Debt securities issued by multilateral development banks other than those to which a 0 % risk weight is assigned under Annex I of Regulation.

(4) An bank may use debt securities that are issued by other banks and that do not have a credit assessment by a CRA as eligible collateral where those debt securities fulfil all the following criteria:

a) They are listed on a recognised exchange;

b) They qualify as senior debt;

c) Presence of other rated issues by the issuing institution of the same seniority have a credit assessment by a CRA and all of which are associated with credit quality step 3 or above under the rules for the risk weighting of exposures to banks under Annex I of Regulation,

ç) There should be no information to suggest that the issue would justify a credit assessment below that indicated in point (c),

d) The market liquidity of the instrument is sufficient for these purposes.

(5) Investments in CIU;

a) The units or shares have a daily public price quote,

b) The CIUs are limited to investing in instruments that are eligible for recognition under paragraphs 1 and 4,

c) A CIU can be recognised as a collateral only if they satisfy the conditions presented in sixty-eight paragraph of Part I of Annex I of Regulation. Where a CIU invests in shares or units of another CIU, conditions laid down in points (a) to (c) of the first paragraph shall apply equally to any such underlying CIU.

(6) The use or have the ability to use by a CIU of derivative instruments to hedge permitted investments shall not prevent units or shares in that undertaking from being eligible as collateral.

(7) Where a CIU or any of its underlying CIUs invested in instruments other than that are eligible, that CIU is not eligible for the purposes of credit risk mitigation.

(8) With regard to points (b) to (d) and (g) of paragraph 1, where there are two credit assessments by CRAs for security or securitisation position, banks must apply the less favourable assessment. Where there are more than two credit assessments, banks must apply the less favourable of the highest two.

### **Additional eligible collaterals under the Financial Collateral Comprehensive Method**

**Article 10** - (1) In addition to the collaterals established in Article 9, where a bank uses the Financial Collateral Comprehensive Method, that bank may use the following items as eligible collateral:

a) Equities or convertible bonds not included in a main index but traded on a recognised exchange;

b) Investments in CIU which have daily public price quote and investments in eligible instruments listed in first and fourth paragraphs of article 9 and point (a).

(2) In case a CIU invests in units or shares of another CIU, conditions in point (b) of first paragraph equally apply to both of CIUs.

(3) The use or having the ability to use of derivative instruments by a CIU to hedge permitted investments shall not prevent units or shares in that undertaking from being eligible as collateral.

(4) Where a CIU has investments in instruments other than that are eligible according to paragraphs 1 and 4 of Article 9 and point (a) of first paragraph, that CIU is not eligible for the purposes of credit risk mitigation.

### **Additional eligible collaterals under the Foundation IRB Approach**

**Article 11** - (1) In addition to the collaterals referred to in Articles 9 and 10, banks that calculate risk-weighted exposure amounts and expected loss amounts under the Foundation IRB Approach may also use the following forms of collateral:

a) Real estate mortgages in accordance with paragraph 2,

b) Receivables in accordance with paragraph 3,

c) Other physical collateral in accordance with paragraph 4,

ç) Goods subject to leasing in accordance with paragraph 5,

(2) Residential real estate mortgages under the scope of Paragraph 43 of Annex I of Regulation and commercial real estate mortgages subject %50 risk weight according to Annex I of Regulation can only be used as collateral subject to following conditions,

a) the value of the property does not materially depend upon the credit quality of the obligor. Banks may exclude situations where purely macro-economic factors affect both the value of the property and the performance of the borrower from their determination of the materiality of such dependence;

b) the payments of the claim must not depend mainly on the performance of the real estate or project, it should depend on the payment capacity of the obligor's other income sources. The repayment of the loan must not materially depend on the cash inflows arising from the real estate.

(3) Commercial or financial transaction receivables with the maturity of less than or equal to 1 year, except receivables from the risk group of obligor and receivables subject to securitization, portion of syndication loan and credit derivatives including the receivables from the employees of the obligor can be taken into account as collateral.

(4) It is subject to the permission of Agency for a bank to use physical collateral of a type other than those indicated in points (a) and (ç) of paragraph 1 where all the following conditions and conditions in Article 23 are met:

a) There must be liquid markets, evidenced by frequent transactions taking into account the asset type, for the disposal of the collateral in an expeditious and economically efficient manner. Banks must carry out the assessment of this condition periodically and where information indicates material changes in the market,

b) There are well-established, publicly available market prices for the collateral. Banks may consider market prices as well-established where they come from reliable sources of information such as public indices and reflect the price of the transactions under normal conditions. Banks may consider market prices as publicly available, where these prices are disclosed, easily accessible, and obtainable regularly and without any undue administrative or financial burden,

c) The banks must analyse the market prices, time and costs required to realise the collateral and the realised proceeds from the collateral,

ç) The realised proceeds from the collateral cannot be below 70 % of the collateral value in more than 10 % of all liquidations for a given type of collateral. Where there is material volatility in the market prices, valuation of the collateral must be sufficiently conservative.

(5) Subject to the provisions of fourth paragraph of Article 49 where the requirements set out in Article 24 are met, exposures arising from transactions whereby an bank leases property to a third party may be treated in the same manner as loans collateralized by the type of property leased.

### **Other eligible funded credit protections**

**Article 12** - (1) Deposits or cash equivalent assets deposited in another bank or investment firm under the agreements other than custody agreement, providing that they have been pledged unconditionally and irrevocably in the name of the crediting bank can be taken into account as other funded credit protection.

## **PART TWO**

### **Eligible Protection Providers for Unfunded Credit Protection Protection Providers**

**Article 13** - (1) The following may be taken into consideration as protection providers in the scope of unfunded credit protections subject to the condition that their risk weight is lower than risk weight of obligor,

a) Central governments and central banks;

b) Regional governments or local authorities;

c) Multilateral development banks;

ç) International organizations exposures to which a 0 % risk weight is applied under

Annex I of Regulation,

d) Public sector entities,

e) Banks and investment firms and financial institutions for which exposures are treated as exposures to banks in accordance with Annex I of Regulation,

(f) Other entities, including parent, subsidiary and affiliate entities of the bank, where either of the following conditions is met:

1) Excluding the guarantees for securitization positions those entities which have a credit assessment by a CRA;

2) In the case of banks calculating risk-weighted exposure amounts and expected loss amounts under the Foundation IRB Approach, those entities which do not have a credit assessment by a CRA however are internally rated by the bank;

3) For the guarantees given for securitization positions the entities which are rated by a CRA and at the time when credit protection is given rating is mapped to first or second credit quality step and for the period after this time it is mapped one of first three credit quality steps.

(2) Where banks calculate risk-weighted exposure amounts and expected loss amounts under the Foundation IRB Approach, to be eligible as a provider of unfunded credit protection a guarantor shall be internally rated by the bank in accordance with the provisions of Annex II of Communiqué on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches.

(3) Where foreign jurisdictions' authorities take into account guarantees of financial institutions as guarantees of banks and investment firms under the scope of capital requirements regulations such financial institutions can be taken into account as eligible guarantors. Board can limit provision in this paragraph by country incase that it sees a necessity.

**Criteria for protection providers under the Foundation IRB Approach which qualify for the treatment of double default effect**

**Article 14** - (1) A bank may use banks and investment firms, insurance and reinsurance undertakings and export credit agencies as eligible providers of unfunded credit protection which qualify for the treatment of reflecting double default set out in Paragraph 4,

Part I, Annex I of Communiqué on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches where they meet all the following conditions:

a) They have sufficient expertise in providing unfunded credit protection;

b) They are rated by a CRA and associated with credit quality step 3, or above, in accordance with the rules for the risk weighting of exposures set out in Annex I of Regulation

c) They must have an internal rating with a PD equivalent to or lower than that associated with credit quality step 3 or above subject to the condition that at least once at the time the credit protection was provided, or for any period of time thereafter, an internal rating with a PD equivalent to or lower than that associated with credit quality step 2 or above in accordance with the rules for the risk weighting of exposures in Annex I of Regulation.

(2) The condition provided in point (b) of paragraph one is not required for banks and investment firms.

## **Eligibility of counter guarantees provided by central banks and central governments as unfunded credit protection**

**Article 15** - (1) Where counter guarantees are provided for the credit protections listed in this part by central governments and central banks subject to the conditions set in article 28 central governments and central banks can be taken into account as protection provider.

### **PART THREE**

#### **Credit Derivatives**

##### **Protection providers**

**Article 16** - (1) Banks may use the following types of credit derivatives, and instruments that may be composed of such credit derivatives or that are economically effectively similar, as eligible credit protection:

- (a) Credit default swaps;
- (b) Total return swaps;
- (c) Credit linked notes to the extent of their cash funding.

(2) Where a bank buys credit protection through a total return swap and records the net payments received on the swap as net income, but does not record the offsetting deterioration in the value of the asset that is protected either through reductions in fair value or by an addition to reserves, that credit protection does not qualify as eligible credit protection.

(3) Where a bank conducts an internal hedge using a credit derivative, in order for the credit protection to qualify as eligible credit protection, the credit risk transferred to the trading book shall be transferred out to a third party or parties. Subject to the condition that all other requirements for the eligibility of credit protection are fulfilled, where the credit protection is taken into account during the calculation of risk weighted exposure amounts the rules provided between sections four and seven apply.

### **SECTION THREE**

#### **Minimum Requirements for Credit Protection Instruments, Protection Providers and Credit Derivatives Used in Credit Risk Mitigation Techniques**

##### **PART ONE**

##### **General Requirements**

##### **Risk management**

**ARTICLE 17-** (1) Banks must have adequate risk management processes in place to manage the risks arising from using the credit risk mitigation techniques. Banks cannot use these techniques without establishing these processes.

(2) Banks must also assess their credit risk on an ongoing basis without taking into account the effect of credit risk mitigation techniques. For repo or securities or commodities lending/borrowing transactions net value of the transaction is recognised as the value of the receivable only for implementation of this paragraph.

## **PART TWO**

### **Requirements for instruments used as funded credit protection On-balance sheet netting agreements**

**Article 18** - (1) On-balance sheet netting agreements shall qualify as an eligible form of credit risk mitigation where all the following conditions are met:

a) Those agreements must be legally effective and enforceable in all relevant countries, including the event of the insolvency or bankruptcy of a counterparty;

b) Banks must be able to determine at any time the assets and liabilities that are subject to those agreements;

c) Banks must monitor and control the risks associated with the termination of the credit protection on an ongoing basis;

ç) Banks must monitor and control the relevant exposures on a net basis and do so on an ongoing basis.

### **Master netting agreements**

**Article 19** - (1) In order for master netting agreements and collaterals acquired by agreements to qualify as an eligible form of credit risk mitigation all the following conditions must be met:

a) They are legally effective and enforceable in all relevant countries, including in the event of the bankruptcy or insolvency of the counterparty;

b) They give the non-defaulting party the right to terminate and close-out in a timely manner all transactions under the agreement upon the event of default, including in the event of the bankruptcy or insolvency of the counterparty;

c) They provide for the netting of gains and losses on transactions closed out under an agreement so that a single net amount is owed by one party to the other;

d) Collaterals must satisfy the conditions set in one to fifth paragraphs of Article 20.

### **Minimum requirements for the eligibility of financial collateral**

**Article 20** - (1) In order to take into account the effect of financial collateral for the purposes of credit risk mitigation, presence of low correlation, legal validity and minimum requirements with respect to operational management must be satisfied.

(2) Presence of low correlation means that there is no positive material correlation between the credit quality of the obligor and the collateral.

(3) Collateral is accepted to have legal validity if the following conditions are met;

a) Banks must 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 their interest in the collateral.

b) Banks must have conducted sufficient legal review confirming the enforceability of the collateral arrangements in all relevant jurisdictions. They must re-conduct such review as necessary to ensure continuing enforceability.

(4) The following operational requirements must be satisfied in order to take into

account financial collateral;

a) Collateral arrangements must be properly documented and clear and robust procedures for the timely liquidation of collateral must be in place;

b) Robust procedures and processes to control risks arising from the use of collateral, including risks of failed or reduced credit protection, valuation risks, risks associated with the termination of the credit protection, concentration risk arising from the use of collateral and the interaction with the bank's overall risk profile must be used;

c) There must be in place documented policies and practices concerning the types and amounts of collateral accepted;

ç) The market value of the collateral must be calculated, and revalued accordingly, at least once every six months and whenever there is a reason to believe that a significant decrease in the market value of the collateral has occurred;

d) Where the collateral is held by a third party, reasonable measures must be taken to ensure that the third party segregates the collateral from its own assets;

e) It should be ensured that sufficient resources are devoted to the orderly operation of margin agreements with OTC derivatives and securities-financing counterparties, as measured by the timeliness and accuracy of their outgoing margin calls and response time to incoming margin calls;

f) Collateral management policies must be in place to control, monitor and report the following:

- 1) The risks to which margin agreements expose them;
- 2) The concentration risk to particular types of collateral assets;
- 3) The reuse of collateral including the potential liquidity shortfalls resulting from the reuse of collateral received from counterparties;
- 4) The surrender of rights on collateral posted to counterparties.

(5) Securities which are issued by obligor or risk group containing the obligor are not considered as collateral. However covered securities which are issued by obligor and meet the requirements of Regulation, Article 6, Paragraph 9 may be considered as collateral for repo transactions only if the condition in Paragraph 2 is met.

(6) In order to take into account the financial collateral under the scope of simple financial collateral approach, the residual maturity of the protection cannot be less the maturity of the exposure subject to protection.

(7) For the financial collaterals; the pledge or assignment periods, of which loans they are pledged or assigned, of which risk amounts and of which date are taken into account for risk mitigation calculations should be documented and kept ready for audit. In the case where the financial collateral is taken against a certain loan, or if the protection is taken indefinitely or longer than the maturity of the receivable, provided that the provisions of the second paragraph of Article 57 are reserved, the matching between loan and the collateral is maintained consistently throughout the protection period for the purpose of calculating the risk weighted exposure amount. In the case where the financial collateral provides legal protection in accordance with the contract for multiple risks of the customer, it is only possible to match the collateral, matched with a risk, to another risk in the calculation of the amount subject to credit risk, provided that it is kept in the bank in a way that does not constitute a maturity mismatch

in any calculation where the collateral was previously used. The collateral amount, which is ineffective in the credit risk mitigation calculations due to the decrease in the loan amount, can be released or used in credit risk mitigation again.

### **Additional eligibility criteria for real estates to be used as collateral**

**Article 21** - (1) Real estate properties can qualify as eligible collateral only where all the following requirements laid down and requirements related to valuation in Article 62 are met.

a) A mortgage or charge is enforceable in all countries which are relevant at the time of the conclusion of the credit agreement and shall be properly filed on a timely basis. Agreement conditions must be written in a way that all legal requirements for establishing the pledge have been fulfilled. The protection agreement and the legal process underpinning it enable the bank to realize the value of the protection within a reasonable timeframe.

b) Banks monitor the value of the property on a frequent basis and at a minimum once every year for commercial real estate and for residential real estate in case that banks use IRB approaches. For the case of standard approach, the mentioned periods are applied as one year for commercial real estates and 3 years for residential real estates. In case that the Agency sees necessity, these periods can be forced to be more conservative. Banks carry out more frequent monitoring where the market is subject to significant changes in conditions. The property valuation is reviewed when information available to banks indicates that the value of the property may have declined materially relative to general market prices and that review is carried out by an approved valuing agency mentioned in Article 62.

c) Banks must clearly document the types of residential and commercial real estates they accept and their lending policies in this regard.

ç) Banks must have in place procedures to monitor that the property taken as credit protection is adequately insured against the risk of damage.

d) Preferential rights caused by other legal responsibilities and environmental responsibilities because of real estate must be regularly monitored.

### **Minimum requirements for the eligibility of receivables under Foundation IRB Approach**

**Article 22** - (1) Receivables mentioned in third paragraph of Article 11 can be used as eligible collateral under Foundation IRB Approach only if the following requirements are met;

a) The legal mechanism by which the collateral is provided to a lending bank must be robust and effective and ensure that that bank has clear rights over the collateral including the right to the proceeds from the sale of the collateral;

b) Banks must take all steps necessary to fulfil legal requirements in respect of the enforceability of security interest. Lending banks must have a first priority claim over the collateral although such claims may still be subject to the claims of preferential creditors provided for in legislative provisions;

c) Banks must have conducted sufficient legal review confirming the enforceability of the collateral arrangements in all relevant countries;

ç) Banks must properly document their collateral arrangements and shall have in place clear and robust procedures for the timely collection of collateral;

d) Banks must have in place procedures that ensure that any legal conditions required for declaring the default of a borrower and timely collection of collateral are observed;

e) In the event of a borrower's financial distress or default, banks must have legal authority to sell or assign the receivables to other parties without consent of the receivables obligors.

f) Banks must have in place a sound process for determining the credit risk associated with the receivables, which shall include analyses of a borrower's business and industry and the types of customers with whom that borrower does business. Where the bank relies on its borrowers to ascertain the credit risk of the customers, the bank shall review the borrowers' credit practices to ascertain their soundness and credibility;

g) The difference between the amount of the exposure and the value of the receivables must reflect all appropriate factors, including the cost of collection, concentration within the receivables pool pledged by an individual borrower, and potential concentration risk within the bank's total exposures beyond that controlled by the bank's general methodology. Banks must maintain a continuous monitoring process appropriate to the receivables. They shall also review, on a regular basis, compliance with loan covenants, environmental restrictions, and other legal requirements;

ğ) Receivables pledged by a borrower must be diversified. In case that there is undue correlation with the borrower's financial condition and the receivables' collectability, receivables are not eligible for credit risk mitigation. Where there is material positive correlation, banks must take into account the attendant risks in the setting of margins for the collateral pool as a whole;

h) Banks must have in place the documented procedures for collection of receivables taken as collateral even when they normally rely on their borrowers for collections.

### **Minimum requirements for eligibility of other physical collateral under Foundation IRB Approach**

**Article 23** - (1) Physical collateral other than real estate collateral must qualify as eligible collateral under the Foundation IRB Approach where all the following conditions are met:

i) The collateral arrangement under which the physical collateral is provided to a bank must be legally effective and enforceable in all relevant countries and shall enable that bank to realize the value of the collateral within a reasonable timeframe;

j) Without prejudice to priority rights stemming from other regulations, only collaterals on which bank has first order and degree retention right are eligible to take into account. Banks must have priority over all other lenders on the amount which is acquired with the liquidation of the collateral;

k) Banks must monitor the value of the collateral at least once every year on a frequent basis especially when the market is subject to significant changes in conditions;

ç) The loan agreement shall include detailed descriptions of the collateral as well as detailed specifications of the manner and frequency of revaluation.

l) The types of physical collateral they accept and the policies and practices they have in place in respect of the appropriate amount of each type of collateral relative to the exposure amount must be clearly documented in internal credit policies and procedures and they should be kept available for examination.

m) Credit policies with regard to the transaction structure shall address appropriate

collateral requirements relative to the exposure amount, the ability to liquidate the collateral readily, the ability to establish objectively a price or market value, the frequency with which the value can readily be obtained, including a professional appraisal or valuation, the volatility or a proxy of the volatility of the value of the collateral.

n) While valuing at the beginning or in the following terms when conducting valuation and revaluation, any deterioration or obsolescence of the collateral must be fully taken into account. For collateral sensitive to technological advances and fashion the effects of the passage of time must be considered.

o) Banks must have the right to physically inspect the collateral and they must also have in place policies and procedures addressing how the physical inspection is exercised.

ğ) Bank must ensure that the collateral taken as protection is insured, continuity and adequacy of insurance is procured in order to protect against the loss of value because of damages to collateral.

### **Minimum requirements for the eligibility of leased property in financial leases as eligible collateral under Foundation IRB Approach**

**Article 24** - (1) Under the condition that the following requirements are met, financial lease transactions are assumed to be collateralized by the leased property;

a) Leased property must meet the requirements in Articles 21 or 23 as applicable,

b) Robust risk management with respect to the use to which the leased asset is put, its economic age and the planned duration of its use, including appropriate monitoring of the value of the property must be in place,

c) The lessor has legal ownership of the asset and is able to exercise its rights as owner in a timely fashion,

ç) Where this has not already been ascertained in calculating the LGD level, the difference between the value of the unamortised amount and the market value of the security is not so large as to overstate the credit risk mitigation attributed to the leased assets.

### **Requirements for protection instruments used as other funded credit protection**

**Article 25** - (1) Deposit or cash like instruments held by another bank or investment firm can be taken into account as collateral used for other funded credit protection where;

a) The borrower's deposit or cash like values held by a bank or investment firm is openly pledged or assigned to the lending bank and such pledge or assignment is legally effective and enforceable in all relevant jurisdictions,

b) The bank or investment firm which is holding the pledged or assigned deposit or cash like values is notified of the pledge or assignment;

c) As a result of the notification, the bank or investment firm which is holding the pledged or assigned deposit or cash like values is able to make payments solely to the lending bank or to other parties only with the lending bank's prior consent.

ç) The pledge or assignment is unconditional and irrevocable;

(2) Deleted (...)

## **PART THREE**

## **Requirements for the Unfunded Credit Protection and Credit Linked Notes**

### **Requirements for credit derivatives and guarantees**

**Article 26** - (1) Subject to Article 28, credit protection deriving from a guarantee or credit derivative shall qualify as eligible unfunded credit protection where all the following conditions are met:

- a) The credit protection is direct;
- b) The assigned exposure or exposure group of the credit protection is clearly defined and irrevocable;
- c) The credit protection contract does not contain any clause, the fulfilment of which is outside the direct control of the lender, that:
  - 1) Would allow the protection provider to cancel the protection unilaterally;
  - 2) Would increase the effective cost of protection as a result of a deterioration in the credit quality of the protected exposure;
  - 3) Could prevent the protection provider from being obliged to pay out in a timely manner in the event that the original obligor fails to make any payments due, or when the leasing contract has expired for the purposes of recognizing guaranteed residual value under Article 82 of Part I of Annex I of Regulation and paragraph 8 of part three of Annex I of Communique on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches;
  - 4) Could allow the maturity of the credit protection to be reduced by the protection provider;
- ç) The credit protection contract is legally effective and enforceable in all jurisdictions which are relevant at the time of the conclusion of the credit agreement.

### **Operational requirements**

**Article 27** - (1) Banks must have in place systems to manage potential concentration of risk arising from its use of guarantees and credit derivatives. Strategies in respect of use of credit derivatives and guarantees should be consistent with its management of its overall risk profile.

(2) Banks must fulfil any contractual and statutory requirements in respect of, and take all steps necessary to ensure, the enforceability of its unfunded credit protection under the law applicable to its interest in the credit protection. Sufficient legal review confirming the enforceability of the unfunded credit protection in all relevant jurisdictions must be conducted by banks. Such reviews must be repeated as necessary to ensure continuing enforceability.

### **Counter-guarantees provided by central governments or central banks**

**Article 28** - (1) Where an exposure is protected with guarantee that is given a counter-guarantee by a central government or central bank, regional or local government mentioned in paragraph nine of Part I of Annex I of Regulation, a public sector entity subject to the application defined in paragraph thirteen of Part I of Annex I of Regulation, multilateral development bank subject to %0 risk weight or international organization, subject to the following conditions are satisfied the mentioned exposure can be taken into account as an exposure secured by the guarantee of mentioned institutions.

a) The counter-guarantee covers all credit risk elements of the claim;

b) Both the original guarantee and the counter-guarantee meet the requirements for guarantees set out in Articles 26,27 and 29 except the requirement for the counter-guarantee to be direct;

c) The cover is protecting effectively and there is no evidence that 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) The provisions in first paragraph are also applied where a direct guarantee is given by the parties mentioned in the first paragraph to a counter guarantee which is not given by the parties mentioned in first paragraph.

### **Additional requirements for guarantees**

**Article 29** - (1) All the following conditions must be met in order to take into account a guarantee:

a) On the qualifying default of or non-payment by the counterparty, the lending bank has the right to pursue, in a timely manner, the guarantor for any monies due under the claim in respect of which the protection is provided. The payment by the guarantor shall not be subject to the condition that the lending bank must first having to pursue the obligor;

b) The guarantee is an explicitly documented obligation assumed by the guarantor;

c) The guarantee covers all types of payments the obligor is expected to make in respect of the claim. As an exception of this situation where certain types of payment are excluded from the guarantee, the lending bank has adjusted the value of the guarantee to reflect the limited coverage.

2) Deleted (...)

3) In the case of guarantees provided in the context of mutual guarantee schemes accepted by the Agency or provided by or counter-guaranteed by entities listed in Article 28, the requirements in point (a) of paragraph 1 of this Article shall be considered to be satisfied where either of the following conditions is met:

a) The lending bank has the right to obtain in a timely manner a provisional payment by the guarantor that represents a robust estimate of the amount of the loss, including losses resulting from the non-payment of interest and other types of payment which the borrower is obliged to make, that the lending bank is likely to incur and it is proportional to the coverage of the guarantee;

b) Guarantee must be effective to provide protection for covering losses resulting from the non- payment of interest and other types of payments which the borrower is obliged to make, justify such treatment.

### **Additional requirements for credit derivatives**

**Article 30** - (1) The following are the requirements for recognition of credit derivatives:

a) The credit derivative contracts must at minimum include the following credit events:

1) The failure of payment, subject to the condition that it must be shorter the one defined for the underlying obligation, in a period determined as grace in the credit derivative contract;

2) The bankruptcy, insolvency or inability of the obligor to pay its debts, or its failure or admission in writing of its inability generally to pay its debts as they become due, and analogous events;

3) The restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that results with a loss to the bank;

b) Where credit derivatives allow for cash settlement banks must have in place a robust valuation process in order to estimate loss reliably and there must be a clearly specified period for obtaining post- credit-event valuations of the underlying obligation;

c) Where the protection purchaser's right and ability to transfer the underlying obligation to the protection provider is required for settlement, the terms of the underlying obligation provide that any required consent to such transfer shall not be unreasonably withheld;

d) The identity of the parties responsible for determining whether a credit event has occurred is clearly defined;

e) The responsible parties for the determination of the credit event must be defined clearly and it must not be the sole responsibility of the protection provider and the protection buyer must have the right or ability to inform the protection provider of the occurrence of a credit event.

2) Where the credit events do not include restructuring of the underlying obligation as described in point (a)(iii), the credit protection may nonetheless be eligible subject to a reduction in the value as specified in Article 233(2);

3) A mismatch between the underlying obligation and the reference obligation under the credit derivative or between the underlying obligation and the obligation used for purposes of determining whether a credit event has occurred is permissible only where both the following conditions are met:

4) The asset used in determination of whether the payment condition has been met or the reference asset and the asset subject to the transaction must be of equal or lower rank in terms of order of priority.

(a) The underlying obligation and the reference obligation or the obligation used for the purpose of determining whether a credit event has occurred, must belong to the same obligor and there must be legally enforceable cross-default or cross-acceleration clauses are in place.

### **Requirements for recognition of double default treatment under Foundation IRB Approach**

**Article 31** - (1) To be eligible for the double default treatment set out in fourth paragraph of Part I of Annex I of Communiqué on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches, credit protection deriving from a guarantee or credit derivative shall meet the following conditions:

(a) The underlying obligation is to one of the following exposures defined in Article 6 of Communiqué on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches :

- 1) Corporate exposures excluding insurance and reinsurance undertakings;
  - 2) An exposure to a regional government, local authority or public sector entity which is not treated as an exposure to a central government or a central bank;
  - 3) SME exposures that are classified as retail exposures;
- b) The underlying obligors must not be members of the same risk group as the protection provider;
- c) The exposure is hedged by one of the following instruments:
- 1) Single-name unfunded credit derivatives or single-name guarantees;
  - 2) First-to-default basket products;
  - 3) Nth-to-default basket products;
- ç) The credit protection meets the requirements set out in Articles 26, 27, 29 and 30 as applicable;
- d) Before applying the treatment set out in fourth paragraph of Part I of Annex I of Communiqué on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches, the effect of the credit protection must not have been already factored in the risk weight associated with the exposure
- e) Bank must have the right to receive payment from the protection provider without having to take legal action in order to pursue the counterparty for payment. The necessary precautions must be taken so that the protection provider pays promptly in case a credit event occurs;
- f) The purchased credit protection absorbs all credit losses incurred on the hedged portion of an exposure that arise due to the occurrence of credit events outlined in the contract;
- g) Where the payout structure of the credit protection provides for physical settlement, there must not be any legal uncertainty in place with respect to the deliverability of a loan, bond, or contingent liability;
- ğ) Where it is intended to deliver an obligation other than the underlying exposure, it must be ensured that the deliverable obligation is sufficiently liquid so that it can be purchased from market for delivery;
- h) The terms and conditions of credit protection arrangements must be legally confirmed in writing by both the protection provider and the bank;
- ı) There must not be 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. Banks must have in place necessary processes to detect this issue.
- ı) In the case of protection against dilution risk, the seller of purchased receivables must not be a member of the same risk group as the protection provider.
- j) Where the credit protection is provided by the instruments listed in sub point (2) of point (c) of paragraph 1, for the treatment set out in fourth paragraph of Part I of Annex I of Communiqué on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches the asset with the lowest risk-weighted exposure amount

must be taken into account.

k) Where the protection is provided with the instruments in the sub point (iii) of point (c) of paragraph 1, in order to be able to take into account the n-th to default credit protection, the presence of (n-1)th to default credit protection or occurrence of (n-1) defaults is required. In this case, for the treatment set out in fourth paragraph of Part I of Annex I of Communiqué on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches the asset with the lowest risk-weighted exposure amount must be taken into account.

## **SECTION FOUR**

### **Calculating the Effects of Credit Risk Mitigation**

#### **PART ONE**

##### **Credit Linked Notes and On-balance Sheet Netting**

###### **Credit Linked Notes**

**ARTICLE 32** - (1) Investments in credit linked notes issued by bank may be treated as cash collateral provided that the provider of credit default swap embedded in the credit linked note meets the criteria for protection providers in set out in Article 13 or 14.

###### **On-balance Sheet Netting**

**ARTICLE 33** - (1) Loans to and deposits with bank subject to on-balance sheet netting are to be treated by that bank as cash collateral for the purpose of calculating the effect of funded credit protection for those loans and deposits of the bank subject to on-balance sheet netting which are denominated in the same currency.

#### **PART TWO**

##### **Master Netting Agreements**

###### **Master Netting Agreements**

**ARTICLE 34** - (1) For transactions subject to the master netting agreement, the fully adjusted exposure value calculated in accordance with Article 35(5) and 36(8) is used as the exposure value for the purpose of calculating risk-weighted exposure amounts under Standardised Approach and risk-weighted exposure amounts and expected loss amounts under Foundation Approach. For repurchase transactions or securities or commodities lending or borrowing transactions or other capital market-driven transactions covered by master netting agreements, the fully adjusted exposure value can be calculated via Simple Approach. Subject to permission of Agency, banks may, as an alternative to Simple Approach resulting from the application of an eligible master netting agreement covering repurchase transactions, securities or commodities lending or borrowing transactions, or other capital market driven transactions other than derivative transactions, use an Internal Models Approach which takes into account correlation effects between security positions subject to the master netting agreement as well as the liquidity of the instruments concerned.

## Calculation of the fully adjusted exposure value for master netting agreements using the Simple Approach

**ARTICLE 35** - (1) The net position of each type of security or commodity subject to master netting agreement is calculated by subtracting the negative position amount from the positive position amount of same type. “The positive position amount of any type of security or commodity” states the total amount of security or commodity of that type sold, lent or provided under the scope of master netting agreement; “the negative position amount regarding/of any type of security or commodity” states the total amount of security or commodity of that type borrowed, purchased or received under the scope of master netting agreement. Securities which are issued by the same institution, includes same issue date, maturity and conditions and are subject to same holding periods defined according to Annex I, form the same security type.

(2) The net position in each currency, other than the settlement currency of the master netting agreement, is calculated by subtracting the negative position amount of same currency type under master netting agreement from positive position amount related to the currency type under master netting agreement. The positive position is the sum of the total value of securities denominated in that currency lent, sold or provided under the master netting agreement and the amount of cash in that currency lent or transferred under that agreement. The negative position amount is the sum of the total value of securities denominated in that currency borrowed, purchased or received under the master netting agreement and the amount of cash in that currency borrowed or received under that agreement.

(3) Volatility adjustment appropriate to a given type of securities is applied to the absolute value of the positive or negative net position in the securities in that type.

(4) Foreign exchange risk volatility adjustment is applied to the net positive or negative position in each currency other than the settlement currency of the master netting agreement.

(5) The fully adjusted exposure value is calculated by the following formula where;

a) “E”, the exposure value for each separate exposure under the agreement that would apply in the absence of the credit protection,

b) “C”, the value of securities in each group or commodities of the same type borrowed, purchased or received or the cash borrowed or received in respect of each exposure,

c) “EE”, the sum off all E under the master netting agreement,

ç) “EC”, the sum off all c under the master netting agreement,

d) “ESEC”, the net position in a given group of securities,

e) “HSEC”, the volatility adjustment appropriate to a particular group of securities,

f) “EFX”, the positive or negative net position in a given currency k other than the settlement currency of the agreement as calculated under point (b) of paragraph 2;

g) “HFX”, the foreign exchange volatility adjustment for currency,

ğ) “E\*” the fully adjusted exposure value

$$E^* = \text{maximum}\{0, [(E(E) - E(C)) + E( | ESEC | \times HSEC) + E( | EFX | \times HFX)]\}$$

(6) the volatility adjustments that are used under the formula in paragraph (5) can be calculated either by using the Standard Volatility Adjustments Approach or the Own Estimates

Volatility Adjustments Approach. The use of the Own Estimates Volatility Adjustments Approach shall be subject to the same conditions and requirements as apply under the Financial collateral comprehensive Method.

### **Calculation of fully adjusted exposure value using the Internal Models Approach for master netting agreements**

**ARTICLE 36** - (1) Internal models that are used in the Internal Models Approach provides the estimates of the possible changes in exposure value in the absence of the credit protection. Exposure value in the absence of the credit protection can be calculated by subtracting the sum of the value of the securities or commodities borrowed, purchased or received or the cash borrowed or received in respect of each such exposure (ST) from the sum of the exposure value for each separate exposure under the agreement that would apply in the absence of the credit protection (SE).

(2) Internal models also can be used for margin lending transactions within the scope of bilateral master netting agreement which meet the requirements of Regulation, Annex-2, Section 2, Part 1, Paragraph 7.

(3) A bank may choose to use an Internal Models Approach independently of the choice it has made between the Standardised Approach and the IRB Approach for the calculation of risk-weighted exposure amounts. However, where a bank seeks to use an Internal Models Approach, it shall do so for all counterparties and securities, excluding immaterial portfolios where it may use the Simple Approach.

(4) Banks that have received permission from the Agency to calculate risk weighted exposure amount for market risk with risk measurement models can use Internal Models Approach without additional permission of the Agency. However, they are required to notify the Agency before using it.

(5) Agency shall permit a bank to use an Internal Models Approach only where the bank's system for managing the risks arising from the transactions covered by the master netting agreement is conceptually sound and implemented with integrity and where the following qualitative standards are met.

a) The internal risk-measurement model used for calculating the potential price volatility for the transactions is closely integrated into the daily risk-management process of the bank and serves as the basis for reporting risk exposures to the senior management of the bank.

b) Risk control unit must produce and analyse daily reports on the output and effectiveness of the risk-measurement model and on the appropriate measures to be taken in terms of position limits.

c) 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 and of overall risk exposure.

ç) The bank has sufficient number of staff skilled in the use of sophisticated models in the risk control unit.

d) The bank 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.

e) The bank'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.

f) The bank frequently conducts a rigorous programme of stress testing and the results of these

tests are reviewed by senior management and reflected in the policies and limits it sets.

g) Independent review of its activities of the business trading units and of the independent risk-control unit must be conducted by internal audit.

ğ) The bank's risk-management system must be reviewed at least once a year.

h) Internal model, shall not conflict with conditions in Regulation, Annex-2, Section 2, Part 2.

(6) Internal model shall capture a sufficient number of risk factors in order to capture all material price risks.

(7) Empirical correlations may be used within risk categories and across risk categories where bank's system for measuring correlations is sound and implemented with integrity.

(8) In Internal Models Approach the fully adjusted exposure value is calculated with the following formula where;

a) "E\*", the fully adjusted exposure value,

b) "E", the exposure value for each separate exposure under the agreement that would apply in the absence of the credit protection,

c) "C", the value of the securities borrowed, purchased or received or the cash borrowed or received in respect of each such exposure,

ç) "EE", the sum off all E under the master netting agreement,

d) "EC", the sum off all C under the master netting agreement,

e) "PCV", potential change in value or value at risk determined by internal model

$$E^* = \text{maximum}\{0, [(EE - EC) + (PFV)]\}$$

(9) When calculating risk-weighted exposure amounts using Internal Models Approach, banks shall use the previous business day's model output.

(10) The calculation of the potential change in value subject to all the following standards.

a) It shall be carried out at least Daily.

b) It shall be based on a 99th percentile, one-tailed confidence interval.

c) It shall be based on a 5-day equivalent liquidation period, except in the case of transactions other than securities repurchase transactions or securities lending or borrowing transactions where a 10-day equivalent liquidation period shall be used.

ç) It shall be based on 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.

d) The data set used in the calculation shall be updated every three months.

(11) In case there is a margin agreement between the counterparty and bank as set out in Regulation, Annex-2, Section One, Part One, paragraph 7, the liquidation period is equal the margin period of risk determined being taken into consideration Regulation, Annex-2, Section Two, Part Two, paragraphs 20 to 28.

## **PART THREE**

### **Financial Collateral**

#### **Financial Collateral**

**ARTICLE 37** - (1) The credit risk mitigation effects of financial collateral can be calculated via Financial Collateral Simple Method or Financial Collateral Comprehensive Method. Banks may use the Financial Collateral Simple Method only where they calculate risk-weighted exposure amounts under the Standardised Approach. Bank shall not use both the Financial Collateral Simple Method and the Financial Collateral Comprehensive Method, except for the purposes of sequential implementation as set out in paragraph 2 of Article 5 and circumstances where it is permitted to use Standardised Approach as set out in Article 9 of Communiqué on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-ratings based Approaches. Banks shall not use this exception selectively with the purpose of achieving reduced own funds requirements.

#### **Financial Collateral Simple Method**

**ARTICLE 38** - (1) Under the Financial Collateral Simple Method banks shall assign to eligible financial collateral a value equal to its market value as determined in accordance with point (ç) of Article 20(4).

(7) Banks shall assign to those portions of exposure values that are collateralised by eligible collateral the risk weight that they would assign under Regulation, Annex-1 where the lending bank had a direct exposure to the collateral instrument. The risk weight will not be less than 20% except as specified in paragraphs 3 to 6. The uncollateralised portion of exposure is assigned a risk weight according to the general provisions of Regulation. For this purpose, the exposure value of an non-cash loans and commitments shall be equal to 100 % of the item's net value indicated in Article 5(2) of Regulation rather than the exposure value indicated in the same paragraph.

(8) Banks shall assign a risk weight of 0 % to the collateralised portion of the exposure arising from repurchase transaction and securities lending or borrowing transactions which fulfil the criteria in Article 47. Where the counterparty to the transaction is not a core market participant as set out in point (g) of article 47(1), banks shall assign a risk weight of 10 % to the collateralised portion of the exposure.

(9) Banks shall assign a risk weight of 0 %, to the extent of the collateralisation, to the exposure values determined under Annex-2 of Regulation for the derivative instruments and subject to daily marking-to-market, collateralised by deposit or cash-assimilated instruments where there is no currency mismatch.

(10) Banks shall assign a risk weight of 10%, to the extent of the collateralisation, to the exposure values of derivatives defined as paragraph 4 collateralised by debt securities issued by central governments or central banks which are assigned a 0 % risk weight and debt securities issued by public sector entities which are treated as exposures to central governments which are assigned a 0 % risk weight.

(11) For transactions other than those referred to in paragraphs 3 to 5, banks may assign a 0 % risk weight where the exposure and the collateral are denominated in the same currency, and either of the following conditions is met:

- a) The collateral is cash on deposit or a cash assimilated instrument.
- b) The collateral is in the form of debt securities issued by central governments or central

banks eligible for a 0 % risk weight or exposures classified as exposures to central governments or central banks eligible for a 0 % risk weight and its market value has been discounted by 20 %.

### **Financial Collateral Comprehensive Method**

**ARTICLE 39** - (1) In order to take account of price volatility, banks shall apply volatility adjustments to the market value of collateral, as set out in Articles 42 to 47, when valuing financial collateral for the purposes of the Financial Collateral Comprehensive Method. Where collateral is denominated in a currency that differs from the currency in which the underlying exposure is denominated, banks shall add an adjustment reflecting currency volatility to the volatility adjustment appropriate to the collateral as set out in Articles 42 to 47.

(2) In the case of OTC derivatives transactions covered by netting agreements recognised by the Agency under Regulation, Annex-2, banks shall apply a volatility adjustment reflecting currency volatility when there is a mismatch between the collateral currency and the settlement currency. Even where multiple currencies are involved in the transactions covered by the netting agreement, banks shall apply a single volatility adjustment.

(3) Banks using the Financial Collateral Comprehensive Method, the exposure value of securities or commodities sold, posted or lent under a repurchase transaction or under a securities or commodities lending or borrowing transaction, and margin lending transactions shall be increased by the volatility adjustment appropriate to such securities or commodities as prescribed in Articles 40 to 47 and this amount is used as exposure value in implementation of Article 5 of Regulation.

### **Calculation of fully adjusted exposure value and volatility adjusted values under Financial Collateral Comprehensive Method**

**ARTICLE 40** - (1) The volatility-adjusted value of the collateral and volatility-adjusted value of the exposure is calculated with the formulas below where;

- a) “C<sub>VA</sub>”, volatility-adjusted value of the collateral,
- b) “H<sub>C</sub>”, the volatility adjustment appropriate to the collateral,
- c) “H<sub>FX</sub>”, the volatility adjustment appropriate to currency mismatch of collateral,
- ç) “C”, the value of the collateral,
- d) “E”, the exposure value,
- e) “E<sub>VA</sub>”, volatility-adjusted value of the exposure,

- f) “H<sub>E</sub>”, the volatility adjustment appropriate to the exposure,
- g) “C<sub>VAV</sub>”, C<sub>VA</sub> further adjusted for any maturity mismatch in accordance with the provisions of Article 59,
- ğ) “E\*”, the fully adjusted exposure value

$$CVA = C \times (1 - HC - HFX)$$

$$EVA = E \times (1 + HE)$$

$$K^* = \text{maximum} \{0, [EVA - C_{VAV}]\}$$

(2) Subject to paragraph (1);

a) The formula of C<sub>VA</sub> can not be used for transactions subject to recognised master netting agreements for which Simple Approach and Internal Models Approach is used.

b) In the case of OTC derivative transactions, “H<sub>E</sub>” is assumed to be zero.

c) When calculating the exposure value under the Standardised Approach, the exposure value of non-cash loans and commitments indicated in Article 5(3) of Regulation shall be equal to 100 % of the item's net value indicated in Article 5(2) of Regulation rather than the exposure value indicated in the same paragraph.

ç) When calculating the exposure value under the Foundation Approach, the exposure value of non-cash loans and commitments indicated in Communique on Calculation of the Risk Weighted Exposure Amount for Credit Risk by Internal-rating based Approaches, Annex-1, Part Three shall be equal to 100 % of the item.

(3) Volatility-adjusted value of the collateral and exposure and volatility adjustment appropriate to currency mismatch of collateral is calculated according to procedures and principles under Articles 42 to 47.

### **Calculation of volatility adjustments under Financial Collateral Comprehensive Method**

**ARTICLE 41** - Volatility adjustments can be calculated either by using the Standard Volatility Adjustments Approach or the Own Estimates Volatility Adjustments Approach. A bank may choose to use the Standard Volatility Adjustments Approach or the Own Estimates Volatility Adjustments approach independently of the choice it has made between the Standardised Approach and the IRB Approach for the calculation of risk-weighted exposure amounts. Where a bank uses the Own Estimates Volatility Adjustments Approach, it shall do so for the full range of instrument types, excluding immaterial portfolios where it may use the Standard Volatility Adjustments Approach.

(2) Where the collateral consists of a number of eligible items, banks shall calculate the volatility adjustment is calculated with the following formula where;

a) “a<sub>i</sub>”, the proportion of the value of an eligible collateral in the total value of collateral,

b) “H<sub>i</sub>”, the volatility adjustment applicable to eligible collateral,

c) “H”, the volatility adjustment

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### **Standard Volatility Adjustment Approach**

**ARTICLE 42** - (1) The volatility adjustments to be applied by banks under the Standard Volatility Adjustments Approach, assuming daily revaluation, shall be those set out in Annex-1.

(2) The liquidation period set out in Annex-1 is; 20 business days for transactions where there are no capital market-driven transactions covered by master netting agreements, 5 business days for repurchase transactions, except insofar as such transactions involve the transfer of commodities or guaranteed rights relating to title to commodities, and securities lending or borrowing transactions and 10 business days for other transactions where there are capital market-driven transactions covered by master netting agreements. In case there is a margin agreement between the counterparty and bank as set out in Regulation, Annex-2, Section One, Part One, paragraph 7, the liquidation period is equal the margin period of risk determined being taken into consideration Regulation, Annex-2, Section Two, Part Two, paragraphs 20 to 28.

(3) In Tables as set out in Annex-1 and in paragraphs 4 to 6, the credit quality step with which a credit assessment of the debt security is associated is the credit quality step with which the credit assessment is determined by Board to be associated under Regulation, Article 4, paragraph 3. For the purpose of determining the credit quality step, Article 9(6) also applies.

(4) For securities that are not taken into account in scope of Article 9 or for commodities lent or sold under repurchase transactions or securities or commodities lending or borrowing transactions, the volatility adjustment is the same as for non-main index equities listed on a recognised exchange.

(5) The volatility adjustment of investments in CIU is the weighted average volatility adjustments that would apply, having regard to the liquidation period of the transaction as specified in paragraph 2, to the assets in which the fund has invested. Where the assets in which the fund has invested are not known to the bank, the volatility adjustment is the highest volatility adjustment that would apply to any of the assets in which the fund has the right to invest.

(6) For unrated debt securities issued by banks and investment firms and satisfying the eligibility criteria in Article 9(4) the volatility adjustments is the same as for securities issued by banks and investment firms or corporates with an external credit assessment associated with credit quality steps 2 or 3.

### **Own Estimates Volatility Adjustments Approach**

**ARTICLE 43** - (1) Agency shall permit banks to use the Own Estimates Volatility

Adjustments Approach for calculating the volatility adjustments to be applied to collateral and exposures where those banks comply with the qualitative and quantitative requirements of this approach. Banks which have obtained permission to use the Own Estimates Volatility Adjustments Approach shall not revert to the use of other methods except for demonstrated good cause and subject to the permission of the Agency.

(2) For debt securities that have a credit assessment from an CRA equivalent to investment

grade or better, banks may calculate a volatility estimate for each category of security.

(3) In determining relevant categories, banks shall take into account the type of issuer of the security, the external credit assessment of the securities, their residual maturity, and their modified duration. Volatility estimates shall be representative of the securities included in the category by the bank.

(4) For debt securities that have a credit assessment from an CRA equivalent to below investment grade, and for other eligible collateral, banks shall calculate the volatility adjustments for each individual item.

(5) Banks using the Own Estimates Volatility Adjustments Approach shall estimate volatility of the collateral or foreign exchange mismatch without taking into account any correlations between the unsecured exposure, collateral or exchange rates.

### **Quantitative requirements regarding Own Estimates Volatility Adjustments Approach**

**ARTICLE 44** - (1) In calculation of volatility adjustment 99th percentile, one-tailed confidence interval is used.

(2) The liquidation period is; 20 business days for transactions where there are no capital market-driven transactions covered by master netting agreements, 5 business days for repurchase transactions, except insofar as such transactions involve the transfer of commodities or guaranteed rights relating to title to commodities, and securities lending or borrowing transactions and 10 business days for other transactions where there are capital market-driven transactions covered by master netting agreements. In case there is a margin agreement between the counterparty and bank as set out in Regulation, Annex-2, Section One, Part One, paragraph 7, the liquidation period is equal the margin period of risk determined being taken into consideration Regulation, Annex-2, Section Two, Part Two, paragraphs 20 to 28.

(3) Banks may use volatility adjustment numbers calculated according to shorter or longer liquidation periods, scaled up or down to the liquidation period set out in paragraph (2) for the type of transaction in question, using the formula below.

$$H_M = H_N \sqrt{\frac{T_M}{T_N}}$$

Where in the formula,

- a) “T<sub>M</sub>”, is the relevant liquidation period as set out in paragraph 2,
- b) “H<sub>M</sub>”, is the volatility adjustment based on the liquidation period T<sub>M</sub>,
- c) “H<sub>N</sub>”, is the volatility adjustment based on the liquidation period T<sub>N</sub>.

(4) Banks shall take into account the illiquidity of lower- quality assets. Banks shall adjust the liquidation period upwards in cases where there is doubt concerning the liquidity of the collateral. Banks shall also identify where historical data may understate potential volatility. Such cases shall be dealt with by means of a stress scenario.

(5) The length of the historical observation period banks use for calculating volatility adjustments shall be at least one year. For banks that use a weighting scheme or other methods

for the historical observation period, the length of the effective observation period shall be at least one year. The Agency may also require a bank to calculate its volatility adjustments using a shorter observation period where this is justified by a significant upsurge in price volatility.

(6) Banks shall update their data sets and calculate volatility adjustments at least once every three months. Banks shall also reassess their data sets whenever market prices are subject to material changes.

(7) No particular type of model is prescribed. So long as each model used captures all the material risks run by the bank, banks will be free to use models based on, for example, historical simulations and Monte Carlo simulations.

### **Qualitative requirements regarding Own Estimates Volatility Adjustments Approach**

**ARTICLE 45-** (1) Banks shall use the volatility estimates in the day-to-day risk management process including in relation to its internal exposure limits.

(2) Where the liquidation period used by a bank in its day-to-day risk management process is longer than that set out in this Section for the type of transaction in question, that bank shall scale up its volatility adjustments in accordance with the time formula set out in paragraph 3 of Article 44.

(3) Banks shall have in place established procedures for monitoring and ensuring compliance with a documented set of policies and controls for the operation of its system for the estimation of volatility adjustments and for the integration of such estimations into its risk management process.

(4) A review of the bank's system for the estimation of volatility adjustments shall be carried out regularly within the bank's own internal auditing process. A review of the overall system for the estimation of volatility adjustments and for the integration of those adjustments into the bank's risk management process shall take place at least once a year. The subject of that review shall include at least the following.

- a) The integration of estimated volatility adjustments into daily risk management.
- b) The validation of any significant change in the process for the estimation of volatility adjustments.
- c) The verification of the consistency, timeliness and reliability of data sources used to run the system for the estimation of volatility adjustments, including the independence of such data sources.
- ç) The accuracy and appropriateness of the volatility assumptions.
- d) The accuracy and completeness of position data.

### **Scaling up of volatility adjustment**

**ARTICLE 46-** (1) The volatility adjustments set out in Annex-1 for the Standard Volatility Adjustment Approach can be applied where there is daily revaluation. Where Own Estimates Volatility Adjustments Approach is used, bank shall calculate volatility adjustments in the first instance on the basis of daily revaluation. Where the frequency of revaluation is less than daily, banks shall calculate volatility adjustments by scaling up the daily revaluation volatility adjustments, using the following formula where;

- a) "H", the volatility adjustment to be applied,

- b) “H<sub>M</sub>”, the volatility adjustment where there is daily revaluation,
- c) “N<sub>R</sub>”, the actual number of business days between revaluations,
- ç) “T<sub>M</sub>”, the liquidation period for the type of transaction in question.

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

### **Conditions for applying a 0 % volatility adjustment**

**ARTICLE 47-**(1) In relation to repurchase transactions and securities lending or borrowing transactions, where a bank uses the Standard Volatility Adjustments Approach or the Own Estimates Adjustments Approach and where the conditions belows are satisfied, banks may, instead of applying the volatility adjustments calculated, apply a 0 % volatility adjustment. Banks using the Internal Models Approach set out in Article 36 shall not use the treatment set out in this paragraph.

- a) Both the exposure and the collateral are cash or debt securities issued by central governments or central banks within the meaning of Article 9(1)(b) and eligible for a 0 % risk weight under Regulation.
- b) Both the exposure and the collateral are denominated in the same currency.
- c) Either the maturity of the transaction is no more than one day or both the exposure and the collateral are subject to daily marking-to-market or daily re-margining.
- ç) The time between the last marking-to-market before a failure to re-margin by the counterparty and the liquidation of the collateral is no more than four business days.
- d) The transaction is settled in a settlement system proven for that type of transaction.
- e) The contractual documents must meet the requirements accepted as standard in the market for repo and securities lending transactions in accordance with the relevant types of securities.
- f) The transaction is governed by documentation specifying that where the counterparty fails to satisfy an obligation to deliver cash or securities or to deliver margin or otherwise defaults, then the transaction is immediately terminable. Upon any default event, regardless of whether the counterparty is insolvent or bankrupt, the bank has the unfettered, legally enforceable right to immediately seize and liquidate the collateral for its benefit.
- g) The counterparty is considered one of the following core market participant.
  - 1) The entities mentioned in Article 9(1)(b) exposures to which are assigned a 0 % risk weight under The Regulation.
  - 2) Banks and investment firms.

- 3) Other financial entities which are assigned a 20 % risk weight under the Standardised Approach in accordance with the Regulation and financial entities which do not have a credit assessment by a CRA and are internally rated by the bank in the concept of Foundation Approach.
- 4) CIUs that are subject to capital or leverage requirements.
- 5) Regulated pension funds.
- 6) Recognised clearing organisations.

(2) Where other countries' supervisor applies a specific carve-out to repo-style transactions in securities issued by its domestic government, then the banks in Turkey can adopt the same approach to the same transactions.

### **Calculating risk-weighted exposure amounts and expected loss amounts under the Financial Collateral Comprehensive method**

**ARTICLE 48** - (1) Under the Standardised Approach, E\* as calculated under Article 40(1) is the exposure value that risk weight shall be applied. In the case the claim is an off-balance sheet item or commitment, banks shall use E\* as the value to which the percentages indicated in Article 5(2) of the Regulation shall be applied to arrive at the exposure value.

(2) In calculation of risk weighted exposure amount under Foundation Approach, banks must continue to calculate exposure amount subject to risk weight without taking into account the presence of any collateral, unless otherwise specified. Under the IRB Approach, the effective LGD (LGD\*) must be used as the LGD for the calculations made in Communiqué on Calculation of the Risk Weighted Exposure Amounts For Credit Risk By Internal-Ratings Based Approaches and LGD\* must be calculated as follows:

$$\text{LGD}^* = \text{LGD} \times (\text{E}^*/\text{E})$$

where:

- a) "LGD", the LGD that would apply to the exposure under Foundation IRB where the exposure was not collateralised,
- b) "E", the exposure value in accordance with Article 40(1),
- c) "E\*", the fully adjusted exposure value in accordance with Article 40(1).

### **Calculating risk-weighted exposure amounts and expected loss amounts for other eligible collateral under the Foundation IRB Approach**

**ARTICLE 49** - (1) LGD\* calculated in accordance with paragraphs 2 to 4 of this Article is recognised as the LGD for the calculations made in Communiqué on Calculation of the Risk Weighted Asset Amounts For Credit Risk By Internal-Ratings Based Approaches.

(2) Where the ratio of the value of the collateral (C) to the exposure value (E) is below the required minimum collateralisation level of the exposure (C\*) as laid down in the table given in paragraph 4, LGD\* shall be the LGD laid down in Communiqué on Calculation of the Risk Weighted Exposure Amounts For Credit Risk By Internal-Ratings Based Approaches for uncollateralised exposures to the counterparty. For this purpose, the exposure value of the non-cash loans and commitments is determined by using a conversion factor of 100 % rather than the conversion factors indicated in the Communiqué on Calculation of the Risk Weighted Asset Amounts For Credit Risk By Internal-Ratings Based Approaches.

(3) Where the ratio of the value of the collateral to the exposure value exceeds the level of C\*\* as laid down in the table given in paragraph 4, LGD\* shall be that prescribed in that table. Where the required level of collateralisation C\*\* is not achieved in respect of the exposure as a whole, the exposure must be considered as two exposures — one corresponding to the part in respect of which the required level of collateralisation C\*\* is achieved and one corresponding to the remainder. For the part of exposure in respect of which the required level of collateralisation THK\*\* is achieved the THK\* values in the table in paragraph four is used, while for the part of the exposure corresponding to the remainder %45 is used as THK\*. The part in respect of which the required level of collateralisation C\*\* is achieved is calculated by dividing the collateral by C\*\*.

(4) The applicable LGD\*, C\* and C\*\* levels for the secured parts of exposures are set out in the table given below.

**Minimum LGD for secured parts of exposures**

Collateral Type	LGD* for senior claims	T*	T**
Receivables	%35	%0	%125
Residential / commercial real estate	%35	%30	%140
Other collateral	%40	%30	%140

(5) Where a bank has just a single mortgage over a residential/commercial real estate, T value set out in paragraphs 2 and 3 is smaller of the mortgage value and usable value of the real estate. Usable value of the real estate refers one of the following:

(a) Where mortgage has a senior degree the usable value of the real estate is the multiplication of the value of real estate with the share of the bank at that mortgage seniority level.

(b) Where mortgage has a junior degree, the usable value of the real estate is the multiplication of the share of the bank at that mortgage seniority level with the residual amount after deducting the mortgage amounts assigned at senior degrees regardless that degree is empty (not assigned to anyone, available for other parties) or already assigned to other parties.

(c) Where a bank has more than one mortgage over a residential/commercial real estate, the amount of mortgages assigned to bank must be compared to the usable value of the real estate for each mortgage seniority level. Subject to this comparison smaller amounts should be taken into account and sum of these should be recognised as T that is set out in paragraphs 2 and 3. Following requirements should be taken into account to find the usable value of the real estate:

(a) Where a bank has subsequent mortgages over a real estate and if the bank is the sole beneficiary for each mortgage seniority level then all mortgages in this sequence are accepted as if they are assigned at the most senior level.

(b) Where a different party has a mortgage between bank's mortgages at different mortgage seniority levels then the mortgages amount at senior levels including bank's mortgages should be deducted from the value of the real estate.

**Calculating risk-weighted exposure amounts and expected loss amounts in the case of mixed pools of collateral under the Foundation IRB Approach**

**ARTICLE 50 -** (1) A bank must calculate the value of LGD\* that it shall use as the

LGD subject to Annex 1 of Communiqué on Calculation of the Risk Weighted Exposure Amounts For Credit Risk By Internal-Ratings Based Approaches in accordance with paragraphs 2 and 3 where the bank uses the IRB Approach to calculate risk-weighted exposure amounts and expected loss amounts and an exposure is collateralised by both financial collateral and other eligible collateral.

(2) Volatility- adjusted value of the exposure, obtained by applying the volatility adjustment as set out in Article 40 to the value of the exposure should be subdivided into parts so as to obtain a part covered by eligible financial collateral, a part covered by receivables, a part covered by commercial real estate collateral or residential real estate collateral, a part covered by other eligible collateral, and the unsecured part, as applicable. Under this subdivision every part should be collateralised by just one collateral type.

(3) Where more than one collateral type is used and the ratio of the sum of the commercial real estate collateral amount, residential real estate collateral amount and other eligible collateral amount to the remaining exposure amount after deducting adjusted amounts of financial collateral and receivables is less than 30% then these collaterals are not recognised. For the purposes of this paragraph adjusted financial collateral amount is determined in accordance with Article 40(1) and adjusted receivables amount is calculated through dividing total value of receivables by relevant C\*\* set out in the table given in Article 49(4).

(4) LGD\* for each part of the exposure must be calculated separately in accordance with the relevant provisions of this Communiqué.

## **PART FOUR**

### **Other Funded Credit Protections**

#### **Other Funded Credit Protections**

**ARTICLE 51** - (1) Where the conditions set out in Article 25(1) are met, deposits or cash equivalent securities with banks or investment firms may be treated as a guarantee by banks.

## SECTION FIVE

### Calculation of Credit Risk Mitigation for Unfunded Credit Protection

#### PART ONE

#### Credit Risk Mitigation, Valuation and Calculation of Risk Weighted Exposure Amount

##### Credit Risk Mitigation

**ARTICLE 52** - (1) Without prejudice to the provisions set out in Section 6 and Section 7 credit risk mitigation may be carried out for calculation of the risk weighted exposure amount provided that relevant requirements given in Section 1, 2 and 3 are met.

##### Valuation

**ARTICLE 53** - (1) The value of unfunded credit protection is 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. In the case of credit derivatives which do not include as a credit event restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that result in a credit loss event the following shall apply:

a) Where the amount that the protection provider has undertaken to pay is not higher than the exposure value, bank must reduce the value of the credit protection by 40 % of the amount undertaken to pay by the protection provider;

b) Where the amount that the protection provider has undertaken to pay is higher than the exposure value, the value of the credit protection can be no higher than 60 % of the exposure value.

(2) Where unfunded credit protection is denominated in a currency different from that in which the exposure is denominated, bank must reduce the value of the credit protection by the application of a volatility adjustment as follows:

$$G^* = G \times (1 - H_{FX})$$

where:

a) “G\*”, the amount of credit protection adjusted for foreign exchange risk,

b) “G”, the nominal amount of the credit protection;

c) “H<sub>FX</sub>”, the volatility adjustment for any currency mismatch between the credit protection and the underlying obligation.

(3) The volatility adjustments for any currency mismatch must be based on a 10 business day liquidation period, assuming daily revaluation, and these calculations must be based on the Standard Volatility Adjustments Approach or the Own Estimates Volatility Adjustments Approach. Banks must scale up the volatility adjustments in accordance with Article 46 assuming no daily revaluation.

## **Calculating risk-weighted exposure amounts and expected loss amounts in the event of partial protection and tranching**

**MADDE 54** - (1) Where a bank transfers a part of the risk of a loan in one or more tranches, risk weighted exposure amount must be calculated in accordance with the securitisation procedures and principles set out in the Regulation. Where a materiality threshold on payments below which no payment would be made in the event of loss is determined in the contract, this threshold would be recognised as equivalent to retained first loss positions and be taken into account as first loss tranche for calculation of risk weighted exposure amount.

### **Calculating risk-weighted exposure amounts under the Standardised Approach**

**ARTICLE 55** - (1) Where standardised approach is used, risk weighted exposure amount must be calculated in accordance with the following formula;

$$RW = [\text{Maksimum } \{0, E - GA\} \times r + GA \times g] * CCF$$

- a) "E", exposure value;
- b) "GA", the amount of credit risk protection, for which maximum value is E, as calculated under paragraph 2 of Article 53 further adjusted for any maturity mismatch as laid down in Section 6;
- c) "r", the risk weight of exposures to the obligor as specified under the Regulation;
- ç) "g", the risk weight of exposures to the protection provider as specified under the Regulation;
- d) "R<sub>w</sub>", risk weighted exposure amount,
- e) "CCF", ratios given in paragraph 2 of the Article 5 of the Regulation for non-cash loans and commitments listed in paragraph 3 of the Article 5 of the Regulation. 100% for other claims.

(2) 100% would be used for calculation of exposure value of non-cash loans and commitments listed in paragraph 3 of the Article 5 of the Regulation instead of the ratios given in paragraph 2 of the Article 5 of the Regulation.

(3) Where the protected amount (G<sub>A</sub>) is less than the exposure value (E), the formula given above may be applied only where the protected part of the exposure has higher or equal seniority than the unprotected part of the exposure (where losses are allocated proportionally across bank and the protection provider). Protection cannot be recognised where the protected part of the exposure has lower seniority than the unprotected part of the exposure.

(4) Banks may extend the treatment set out in Paragraphs 4 and 5 of Annex 1 of the Regulation to exposures or parts of exposures guaranteed by a central government or a central bank, where the guarantee is denominated in the domestic currency of the borrower and the exposure is funded in that currency.

### **Calculating risk-weighted exposure amounts and expected loss amounts under the Foundation IRB Approach**

**ARTICLE 56** - (1) For the covered portion of the exposure (G<sub>A</sub>), based on the adjusted value of the credit protection G<sub>A</sub>, the PD for the purposes of Part 2 of Annex 1 of the Communique on Calculation of the Risk Weighted Exposure Amounts For Credit Risk By

Internal-Ratings Based Approaches may be the PD of the protection provider, or a PD between that of the borrower and that of the guarantor where a full substitution is deemed not to be warranted. In the case of subordinated claims and senior unfunded protection, the LGD to be applied by banks for the purposes of Part 2 of Annex 1 of the Communiqué on Calculation of the Risk weighted Exposure Amounts For Credit Risk By Internal-Ratings Based Approaches may be that associated with senior claims.

(5) For any uncovered portion of the exposure the PD is that of the borrower and the LGD is that of the underlying exposure.

(6) For the purposes of this Article,  $G_A$  is the value as calculated under paragraph 1 of Article 55.  $E$  is the exposure value determined in accordance with Part 3 of Annex 1 of the Communiqué on Calculation of the Risk Weighted Asset Amounts for Credit Risk by Internal-Ratings Based Approaches. For this purpose, a ratio of 100 % rather than the conversion factors indicated in Part 3 of Annex 1 of the Communiqué on Calculation of the Risk Weighted Exposure Amounts For Credit Risk By Internal-Ratings Based Approaches must be used.

(7) For the application of this article, the covered portion of the exposure is assigned the risk weight associated with the protection provider while the uncovered portion of the exposure is assigned the risk weight associated with the underlying obligor.

## **SECTION SIX**

### **Maturity Mismatch**

#### **PART ONE**

#### **Maturity Mismatch and Valuation of the Credit Protection for Maturity Mismatch**

##### **Definition of maturity**

**ARTICLE 57** - (1) Subject to a maximum of five years, the effective maturity of the underlying is the longest possible remaining time before the obligor is scheduled to fulfil its obligations. Subject to paragraph 2, the maturity of the credit protection is the time to the earliest date at which the protection may terminate or be terminated.

(2) Where there is an option to terminate the protection which is at the discretion of the protection seller, the maturity of the protection is the time to the earliest date at which that option may be exercised. Where there is an option to terminate the protection which is at the discretion of the protection buyer and the terms of the arrangement at origination of the protection contain a positive incentive for the bank to call the transaction before contractual maturity, the maturity of the protection is the time to the earliest date at which that option may be exercised; otherwise, it may be considered that such an option does not affect the maturity of the protection.

(3) Where a credit derivative is not prevented from terminating 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 is calculated by deducting grace period from the maturity.

##### **Maturity mismatch**

**ARTICLE 58** - (1) For the purpose 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) Where one of the following conditions is in place when a maturity mismatch occurs then the relevant credit protection cannot qualify as eligible:

- a) The original maturity of the protection is less than 1 year,
- b) Protection has a residual maturity of less than three months.
- c) The exposure is a short term exposure with a maturity at least 1 days subject to paragraph 14 of Part Two of Annex 1 of Communiqué on Calculation of the Risk Weighted Asset Amounts for Credit Risk by Internal-Ratings Based Approaches.

### **Valuation of the credit protection for maturity mismatch**

**ARTICLE 59** - (1) For Financial Collateral Simple Method, where there is a mismatch between the maturity of the exposure and the maturity of the funded credit protection, the collateral does not qualify as eligible.

(2) For Financial Collateral Comprehensive Method, banks must reflect the maturity of the credit protection and of the exposure in the adjusted value of the collateral according to the following formula:

$$CVAM = CVA \times (t - 0,25) / (T - 0,25)$$

where:

- a) “CVA”, the volatility adjusted value of the collateral as specified in Article 40(1) or the amount of the exposure, whichever is lower;
- b) “v”, the number of years remaining to the maturity date of the credit protection calculated in accordance with Article 57, or the value of T, whichever is lower;
- c) “V”, the number of years remaining to the maturity date of the exposure calculated in accordance with Article 57, or five years, whichever is lower;
- ç) “CVAM”, further adjusted value of the collateral

(3) CVAM must be used as CVA further adjusted for maturity mismatch in the formula for the calculation of the fully adjusted value of the exposure set out in Article 40(1).

(4) Where there is a mismatch between the maturity of the exposure and the maturity of the unfunded credit protection banks must reflect the maturity of the credit protection and of the exposure in the adjusted value of the collateral according to the following formula:

$$GA = G^* \times (t - 0,25) / (T - 0,25)$$

- a) “GA”, G\* adjusted for any maturity mismatch;
- b) “G\*”, the amount of the protection adjusted for any currency mismatch;
- c) “t”, the number of years remaining to the maturity date of the credit protection calculated in accordance with Article 57, or the value of T, whichever is lower,;
- ç) “T”, the number of years remaining to the maturity date of the exposure calculated in accordance with Article 57, or five years, whichever is lower;

(5) GA must be used as the value of the protection for the purposes of Articles 55 and 56.

## **SECTION SEVEN**

### **Credit Derivatives Regarding the Exposure Group, Valuation Principles and Final Provisions**

#### **PART ONE**

##### **Credit Derivatives Regarding the Exposure Group**

###### **First-to-default credit derivatives**

**ARTICLE 60** - (1) Where a bank obtains credit protection for a number of exposures under terms that the first default among the exposures shall trigger payment and that this credit event shall terminate the contract, 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 must be calculated in accordance with the provisions of this Communiqué. The treatment set out in this Article applies only where the exposure value is less than or equal to the value of the credit protection. The exposure with the lowest risk weighted exposure amount is determined according to the risk weighted exposure amounts specified in accordance with Regulation. Where there are more than one exposure with lowest risk weighted exposure amount this treatment will apply to only one of them.

(2) For banks using the Foundation IRB Approach to determine the exposure with the lowest risk weighted exposure amount, the risk-weighted exposure amount is the sum of the risk-weighted exposure amount calculated under the Foundation IRB Approach and 12.5 times the expected loss amount.

###### **Nth-to-default credit derivatives**

**ARTICLE 61** - (1) Where the nth default among the exposures triggers payment under the credit protection, the bank purchasing the protection may only recognise the protection for the calculation of risk-weighted exposure amounts and, as applicable, expected loss amounts where protection has also been obtained for defaults 1 to n-1 or when n-1 defaults have already occurred. In such cases, the bank may amend the calculation of the risk-weighted exposure amount and, as applicable, the expected loss amount of the exposure which would, in the absence of the credit protection, produce the n-th lowest risk-weighted exposure amount in accordance with this Communiqué. Banks must calculate the nth lowest amount as specified in Article 60.

#### **PART TWO**

##### **Valuation principles for real estate and other eligible collateral**

###### **Valuation of real estate**

**ARTICLE 62** - (1) For real estate collateral, the collateral must be valued by an independent valuer, which is authorised by the Board or Capital Markets Board, at or at less than the market value. Where rigorous criteria for the assessment of the mortgage lending value of the real estate are determined in statutory or regulatory provisions the property may instead be valued by an independent valuer at or at less than the mortgage lending value.

(3) The fair value must be documented in an accurate and reliable manner.

(4) Mortgage lending value of the real estate is the value determined after a prudent assessment about the marketability of the real estate in future by taking into account the real estate's features that would not change in the short run, usual and domestic market conditions, current and feasible alternative intended use of the real estate. Speculative elements cannot be taken into account in the assessment of the mortgage lending value. Mortgage lending value must be documented in an accurate and reliable manner.

(5) The collateral value is determined by adjusting the market value or mortgage lending value of the real estate subject to the provision in point (b) of paragraph 1 of Article 21 and the rights over the real estate granted before.

(6) Where a real estate is located abroad, in case that the valuation is done by an institution recognized by the authority of that country in order to use the valuation in their comparable regulations, that valuation is accepted as a valuation done by an authorised valuation agency according to this regulation.

### **Valuation of other collaterals**

**ARTICLE 63** - (1) For receivables listed in point (b) of paragraph 1 of Article 11, the value of receivables is be the amount receivable.

(2) For other physical assets and financial lease assets excluding real estates listed in point (c) and (ç) of paragraph 1 of Article 11 the value of receivables is the market value.

## **PART THREE**

### **Miscellaneous and Final Provisions**

#### **References**

**ARTICLE 64** - (1) References to the Communiqué on Credit Risk Mitigation Techniques published in the Official Gazette dated 28/6/2012 and numbered 28337 shall be deemed to be made to this Communiqué.

#### **Communique abolished**

**MADDE 65** - (1) Communiqué on Credit Risk Mitigation Techniques published in the Official Gazette Nr. 28337 dated 28/6/2012 is abolished.



		Period (%)								
1	< 1 year	0,707	0,5	0,354	1,414	1	0,707	2,828	2	1,414
	> 1 year									
	< 5 year	2,828	2	1,414	5,657	4	2,828	11,314	8	5,657
	> 5 year	5,657	4	2,828	11,314	8	5,657	22,628	16	11,314
2 - 3	< 1 year	1,414	1	0,707	2,828	2	1,414	5,657	4	2,828
	> 1 year									
	< 5 year	4,243	3	2,121	8,485	6	4,243	16,971	12	8,485
	> 5 year	8,485	6	4,243	16,971	12	8,485	33,942	24	16,971
4	< 1 year	21,213	15	10,607	-	-	-	-	-	-
	> 1 year									
	< 5 year	21,213	15	10,607	-	-	-	-	-	-
	> 5 year	21,213	15	10,607	-	-	-	-	-	-

**Table 2**

SC QS	Volatility adjustments for Type C securities	Volatility adjustments for Type D securities	Volatility adjustments for securitisation positions
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	20 Liq. Period (%)	10 Liq. Period (%)	5 Liq. Period (%)	20 Liq. Period (%)	10 Liq. Period (%)	5 Liq. Period (%)	20 Liq. Period (%)	10 Liq. Period (%)	5 Liq. Period (%)
1	0,707	0,5	0,354	1,414	1	0,707	2,829	2	1,414
2-3	1,414	1	0,707	2,828	2	1,414	5,657	4	2,828

**Table 3**

Other collateral or credit derivatives			
	20 Liq. Period (%)	10 Liq. Period (%)	5 Liq. Period (%)
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
Deposit and Cash equivalent instruments	0	0	0
Gold	21,213	15	10,607

**Table 4**

Volatility adjustment for currency mismatch		
20 Liq. Period (%)	10 Liq. Period (%)	5 Liq. Period (%)
11,314	8	5,657