

# Ordinance No. 38

## on the Capital Adequacy of Banks

(title amended; Darjaven Vestnik, issue 106 of 27 December 2006)

(Issued by the Governor of the BNB, adopted by the Governing Council of the BNB on 23 December 2004, published in the Darjaven Vestnik, issue 5 of 14 January 2005; in force as of 1 July 2005; amended, issue 55 of 2005, issues 19 and 106 of 2006)

### *Chapter One*

#### GENERAL PROVISIONS

##### *Subject*

**Article 1.** (new; Darjaven Vestnik, issue 106 of 2006) (1) This Ordinance shall be applied only in the cases and for the purposes specified under § 9 and 10 of Ordinance No 8 on the Capital Adequacy of Credit Institutions.

**Article 1a.** (former Article 1; Darjaven Vestnik, issue 106 of 2006) (1) This Ordinance shall determine the minimum amount and structure of own funds of banks and the capital adequacy requirements thereto.

(2) The provisions of this Ordinance shall apply both on solo and consolidated basis within the meaning of Article 4 of the Law on Banks.

(3) Each bank shall:

1. hold at any time own funds which are adequate with regard to the overall risk profile of the institution;

2. implement and apply sound control systems, including risk management, reporting, and capital adequacy assessment process.

##### *Own Funds Minimum Requirement*

**Article 2.** (1) Banks shall maintain own funds (capital base) which shall at any time exceed or be equal to the sum of the following:

1. credit risk capital requirements;

2. market risk capital requirements.

(2) The own funds of a bank shall never fall below the minimum required capital at the time of incorporation of the bank (initial capital) of BGN 10 million, as provided for in Article 23 of the Law on Banks.

*Chapter Two*

## OWN FUNDS (CAPITAL BASE), CAPITAL ADEQUACY

## Section I

**Establishment and Elements of Own Funds***Establishment of Own Funds*

**Article 3.** (1) The own funds (capital base) of banks shall be the sum total of Tier one capital (core capital) and Tier two capital (supplementary capital) less the amounts under Article 7.

*Tier One Capital (Core Capital)*

**Article 4.** (1) Tier one capital (core capital) shall comprise the following elements:

1. paid-in share capital;
2. premium reserves in relation to the paid-in capital under item 1;
3. the Reserve Fund (general reserves) within the meaning of Article 24 of the Law on Banks;
4. other general-purpose reserves allocated from the bank's after-tax profit;
5. the retained profit from previous years less expected dividend payments and other deductions;
6. (repealed; Darjaven Vestnik, issue 55 of 2005).

(2) (amended; Darjaven Vestnik, issue 55 of 2005) The profits specified in paragraph 1, item 5, may be included in the Tier one capital of a bank, provided the following conditions are met:

1. (amended; Darjaven Vestnik, issue 55 of 2005) the general shareholders meeting of a bank has determined the maximum amount of expected dividend payments and other deductions;

2. profits and taxes due have been confirmed (audited) by the bank's external auditor according to a procedure set by the Bulgarian National Bank (hereinafter referred to as the BNB);

3. a notification has been sent to the BNB accompanied by documents regarding the circumstances under items 1 and 2, and the BNB has not objected within ten days from their receipt or from the submission of any additional documents, if such have been required.

(3) (repealed; Darjaven Vestnik, issue 55 of 2005)

(3) (former paragraph 4; Darjaven Vestnik, issue 55 of 2005) The sum total under paragraph 1 shall be reduced by:

1. the loss of current and for prior years;
2. the balance sheet value of the bank's own repurchased shares;
3. any intangible assets.

*Tier Two Capital (Supplementary Capital)*

**Article 5.** (1) Tier two capital (supplementary capital) shall be included in the bank's own funds only if it meets the following general requirements:

1. these funds are fully at the bank's disposal and it can use them without any restrictions whatsoever to cover operational losses;

2. their availability is reported in the financial statements of the bank and has been certified by an independent registered auditor;

3. the BNB may monitor their availability and use on an on-going basis.

(2) Tier two capital consists of the following elements:

1. revaluation reserves allocated for the real property where the bank operates;

1a. (new; Darjaven Vestnik, issue 55 of 2005) the special-purpose reserves formed out of the bank's profit after paying the taxes;

2. unrealized gain (net of taxes) from debt instruments available for sale, and 45 per cent of unrealized gain (net of taxes) from equity instruments available for sale;

3. amounts attracted by the bank through debt/equity (hybrid) instruments and other financial instruments, provided these instruments fulfill the following special conditions:

a) only fully paid up amounts shall be included;

b) their redemption is not bound by any maturity;

c) their redemption is not secured in any way by the bank;

d) in case of liquidation or bankruptcy of a bank, the debt may be redeemed only after all other creditors' claims have been satisfied in full;

e) the receivables under these instruments in relation to the principal (par value) may not become payable without a written permission by the Bulgarian National Bank;

f) the terms under which the bank has attracted these funds entitle the bank to defer repayment of yield on them in case the bank has not formed a profit or the profit is insufficient;

4. The amounts attracted in the form of subordinated term debt, provided this debt fulfills the following special conditions:

a) the debt amounts shall be paid up in full;

b) their redemption is not secured in any way by the bank;

c) minimum five years original maturity;

d) no early redemption of the debt shall be allowed without the permission in writing of the Bulgarian National Bank;

e) the contract does not provide for a possibility to call the debt before maturity;

f) where interest or other incomes have been agreed upon, these may not be paid up prior to the maturity of the debt;

(g) in case of liquidation or bankruptcy of a bank, the debt may be redeemed only after all other creditors' claims have been satisfied in full.

(3) In the last five years to maturity, the amount of subordinated debt shall be included in the Tier two capital reduced by 20 per cent for each year. After the debt has matured, it shall be entirely excluded from the own funds (capital base).

(4) The amounts under paragraph 2, items 3 and 4, may be included in the Tier two capital with the permission of the Deputy Governor in charge of the BNB Banking Supervision Department based on a written application accompanied by the relevant documents proving compliance with the requirements under this Article. The deadline for making a decision is 30 days.

(5) The Tier two capital shall be reduced by the unrealized profit from debt and equity instruments available for sale.

## Section II

### **Limits and Deductions Applicable for the Calculation of Own Funds**

#### *Limits Applicable for the Calculation of Own Funds*

**Article 6.** (1) Tier two capital shall not exceed 100 per cent of Tier one capital.

(2) Tier two capital under Article 5, paragraph 2, item 4, shall not exceed 50 per cent of Tier one capital.

#### *Deductions Applicable for the Calculation of Own Funds*

**Article 7.** (1) Own funds shall be reduced by:

1. the balance sheet value of investments in shares or other form of equity interest, accounting for 10 per cent and over 10 per cent of the paid-in capital of a bank or nonbank financial institution under Article 1, paragraph 5 of the Law on Banks, as well as investments in debt/equity (hybrid) instruments, and in subordinated term debt of institutions where the bank's interest amounts to 10 per cent and over 10 per cent of the paid-in capital, in each individual case, provided these institutions are not consolidated in the bank's balance sheet;

2. the balance sheet value of all investments in shares or other form of equity interest, accounting for 10 per cent or over 10 per cent of the paid-in capital in an unconsolidated company other than that under item 1;

3. the balance sheet value of shares or other form of equity interest in the capital, in debt/equity (hybrid) instruments, and in subordinated term debt of banks or nonbank financial institutions under Article 1, paragraph 5 of the Law on Banks other than those under item 1, provided the total amount exceeds 10 per cent of the bank's own funds prior to the reductions under items 1 and 2.

(2) The own funds on a consolidated basis shall be formed pursuant to Article 3, by adding, correspondingly deducting the following elements:

1. minority interests;
2. goodwill;
3. balances resulting from translation of reports in other currencies;

4. other elements provided for in the effective legislation in case of consolidation.

(3) Where the elements under paragraph 2, items 2, 3 and 4 are debit (positive) positions, a bank's consolidated own funds shall be reduced by these elements. Where these positions are credit (negative) ones, they shall be added to the consolidated Tier two capital. Minority interests under paragraph 2, item 1 in subsidiary bank and nonbank companies subject to full consolidation shall be reported under the respective element of a bank's capital depending on the nature of minority interests.

(4) The deductions from the own funds under paragraphs 1 and 2 may be disregarded elsewhere in calculation of capital requirements.

### Section III

## Calculation of Capital Adequacy

### *Capital Adequacy Ratios*

**Article 8.** (1) A bank shall establish its overall capital adequacy ratio as a percentage ratio of its own funds to its overall risk component.

(2) A bank shall establish its Tier one (core) capital adequacy ratio as a percentage ratio of its Tier one capital to its overall risk component.

(3) For banks which do not apply market risk capital requirements to their trading book items, the overall risk component used as a denominator in the capital adequacy ratios shall be calculated as the sum total of:

- (a) the credit risk-weighted assets under Article 11, paragraph 4;
- (b) foreign exchange risk-weighted positions under Article 40, paragraph 3;
- (c) commodities risk-weighted positions under Article 45, paragraph 3.

(4) For banks which apply market risk capital requirements to their trading book items, the overall risk component used as a denominator in the capital adequacy ratios shall be calculated as the sum total of:

- (a) the credit risk-weighted assets under Article 11, paragraph 3;
- (b) the position risk-weighted positions under Article 28, paragraph 5;
- (c) the foreign exchange risk-weighted positions under Article 40, paragraph 3;
- (d) the commodities risk-weighted positions under Article 45, paragraph 3.

(5) Banks which apply internal models for calculation of their capital requirements against market risk under this Ordinance shall calculate their risk-weighted positions against the respective market risk on the basis of the value under Article 56, paragraph 4 calculated through the model.

(6) The overall capital adequacy ratio shall not be lower than 12 per cent.

(7) The Tier one capital adequacy ratio shall not be lower than 6 per cent.

(8) The overall capital adequacy ratio and the Tier one capital adequacy ratio shall be observed both on solo and consolidated basis.

## Section IV

### **Banking Book and Trading Book**

**Article 9.** (1) To calculate their credit risk and market risk capital requirements, banks shall separate their trading book positions from their banking book ones.

(2) A banking book shall comprise the on-balance sheet value of assets and the off-balance sheet positions converted to assets, which do not qualify as trading book positions.

(3) The trading book of a bank shall consist of all positions in financial instruments and commodities held by the bank either for trading or for hedging other elements of the trading book.

(4) Positions held for trading are the bank's positions in financial instruments and commodities held with the intention of short-term resale. These positions are held by the bank with the intention of benefiting from differences between buying and selling prices as a result of actual or expected short-term price or interest rate variations.

(5) Trading book positions shall also include:

1. positions due to the unsettled transactions, free deliveries and OTC derivatives;

2. positions due to repurchase agreements and securities or commodities lending transactions based on securities or commodities included in the trading book;

3. positions due to reverse repurchase agreements and securities or commodities borrowing transactions based on securities or commodities included in the trading book, where the conditions under (a), (b), (c), and (e), or the conditions under (d) and (e) are complied with, as follows:

(a) the positions are marked to market on a daily basis;

(b) the value of the collateral is adjusted with a view to reporting any changes in the securities or commodities prices;

(c) the agreement or transaction provides for the claims of the institution to be automatically and immediately offset against the counterparty's claims in case of the latter's default;

(d) the counterparty is a domestic bank, a bank from a country listed in Appendix 1 with an investment rating, a recognized exchange, or a clearing house;

(e) the transaction is a short-term one.

## Section V

### **Provisions for Waiver of the Requirement for Maintaining Market Risk Capital Requirements on Trading Book Positions**

**Article 10.** (1) Banks shall not apply market risk capital requirements with regard to trading book positions, provided all the conditions below are met simultaneously:

1. the bank's trading book business does not normally exceed 5 per cent and has never exceeded 6 per cent of its total business;

2. the banks total trading book position does not normally exceed BGN 30 million and has never exceeded BGN 40 million.

(2) Banks, which meet the conditions under paragraph 1, shall calculate their capital requirements on trading book instruments in accordance with the requirements applicable to the banking book.

(3) The size of the trading book business is the sum total of the long and short on- and off-balance sheet positions, irrespective of their sign, which have been taken on the trading book. The size of the overall business is the sum of the on-balance sheet assets and the off-balance sheet positions converted to them, with the exception of financial derivative instruments.

(4) Within the meaning of paragraph 1, what is considered normal for a bank shall not exceed more than three times a month the 5 per cent and BGN 30 million limit, and never exceed the 6 per cent and BGN 40 million limit.

(5) A bank, which exceed more than three times a month the 5 per cent and BGN 30 million limit, but has not exceeded the 6 per cent and BGN 40 million limit, shall notify not later than three business days after the reporting month's end the BNB regarding the daily and average monthly values of the trading book transactions, and the total amount of trading book business as a share of the whole business. The notification shall also contain an explanation of the excess over the limit.

(6) Within ten days from the receipt of the notification, the BNB shall notify the bank if and when it shall start calculating market risk capital requirements for its trading book operations.

(7) A bank, which exceeds the 6 per cent and BGN 40 million limit, shall notify the BNB about the excess not later than on the business day following the excess over the limit.

(8) The BNB shall set a date from which the bank shall commence calculating market risk capital requirements for its trading portfolio business.

(9) The capital requirements for foreign exchange risk and commodities risk shall still be applicable even if the bank falls under the exception under paragraph 1.

### *Chapter Three*

## CREDIT RISK CAPITAL REQUIREMENTS

### Section I

#### **General Provisions**

**Article 11.** (1) Capital requirements for credit risk shall be calculated by determining the amount of risk-weighted assets.

(2) Banks applying market risk capital requirements to their trading book positions shall determine the amount of their credit risk-weighted assets by including their banking book positions multiplied by the respective risk weight in a manner as provided for in this chapter.

(3) For the banks under paragraph 2, the credit risk-weighted assets shall be:

1. credit risk-weighted banking book assets;
2. the off-balance sheet positions converted to the assets under item 1;

3. OTC derivatives weighted for counterparty risk;
4. trading book positions weighted for counterparty risk and settlement risk.

(4) Banks not applying market risk capital requirements to their trading book positions shall determine the amount of their credit risk-weighted assets by including their trading book position to their banking book positions and applying the respective risk weights and conversion factors in a manner as provided for in this chapter.

(5) For the banks under paragraph 4, the credit risk-weighted assets shall be:

1. credit risk-weighted on-balance sheet assets;
2. off-balance sheet items converted to assets under item 1;
3. OTC derivative instruments weighted for counterparty risk.

(6) Where assets and off-balance sheet items are partially secured or guaranteed with the assets or by the persons specified in Articles 13 and 14, the relevant lower risk weights shall apply to the secured portion.

(7) The credit risk capital requirement shall be 12 per cent.

## Section II

### Establishment of the Risk Component of Balance Sheet Items

#### *Determination of the Risk-weighted Value of Assets*

**Article 12.** In order to establish the risk component of balance sheet items, the carrying value of any asset shall be multiplied by the relevant risk weight to produce the risk-weighted value of the asset. The total of risk-weighted assets of the balance sheet items shall be obtained by adding up all risk-weighted assets.

#### *Assets Risk-weighted at 0 Per Cent*

**Article 13.** (1) The assets risk-weighted at 0 per cent shall be:

1. cash and cash equivalents;
2. claims on the Government of the Republic of Bulgaria or the Bulgarian National Bank, as well as claims directly, unconditionally and fully guaranteed by them;
3. claims on governments or central banks of the countries listed in Appendix 1, or claims directly, unconditionally and fully guaranteed by them;
4. claims on governments or central banks other than those under item 3, as well as claims directly, unconditionally and fully guaranteed by them, denominated and funded in their national currency;
5. claims fully secured with securities issued by the Government of the Republic of Bulgaria, by the BNB, or by the governments and central banks under item 3;
6. claims fully secured with a pledge of gold;
7. claims fully secured with a pledge of claim on the bank in the form of a blocked deposit, denominated in levs or a foreign currency whereof the Bulgarian National Bank shall daily quote an exchange rate.

(2) The assets risk-weighted at 0 per cent shall be included in the risk component of the bank's balance sheet items, with nil.

*Assets Risk-weighted at 20 Per Cent*

**Article 14.** (1) The assets risk-weighted at 20 per cent shall be:

1. claims on local banks or claims directly, unconditionally and fully guaranteed by them;
2. cash in process of collection (claims on traveller's checks, certified checks or other immediately payable cash items);
3. claims on banks from the countries on the BNB's list in Appendix 1, or claims directly, unconditionally and fully guaranteed by them, provided that these claims are not included in these institutions' own funds;
4. claims with a term of up to one year on banks from countries other than those on the BNB's list in Appendix 1, or claims directly, unconditionally and fully guaranteed by them, provided that these claims are not included in these institutions' own funds;
5. claims on international institutions according to Appendix 2, or claims directly, unconditionally and fully guaranteed by them;
6. claims fully secured with securities issued by the international institutions according to Appendix 2.

(2) The assets risk-weighted at 20 per cent shall be included in the risk component of the bank's balance sheet items, with a value equal to one fifth of their carrying value.

*Assets Risk-weighted at 50 Per Cent*

**Article 15.** (1) (amended; Darjaven Vestnik, issue 19 of 2006) Assets risk-weighted at 50 per cent shall be claims on loans fully and completely secured with a first mortgage on a fully insured and valued at fair value real estate in a residential building, which is occupied or will be occupied or rented by the borrower, where the amount of loans is not more than 50 per cent of the mortgage.

(2) The assets risk-weighted at 50 per cent shall be included in the risk component of the bank's balance sheet items, with a value equal to half of their carrying value.

*Assets Risk-weighted at 100 Per Cent*

**Article 16.** (1) Assets risk-weighted at 100 per cent shall be all other assets which are not specified in Articles 13, 14 and 15.

(2) The risk component of balance sheet items shall not include the amounts under Article 7.

(3) The assets risk-weighted at 100 per cent shall be included in the risk component of the bank's balance sheet items, with their full carrying value.

### Section III

#### **Establishment of the Risk Component of Off-balance Sheet Items**

##### *Conversion of Off-balance Sheet Items into Balance Sheet Items and Their Inclusion into the Risk Component of Assets*

**Article 17.** (1) All off-balance sheet items shall be converted into balance sheet items with a portion of their book value as specified in Articles 18, 19, 20 and 21.

(2) The amounts obtained from the conversion of off-balance sheet items into balance sheet ones shall be included in the risk component with an amount determined according to the risk category of the relevant group under Articles 13, 14 and 16, to which they would be ascribed in accordance with the collateral and the quality of the country on which a claim in favor of the bank arises from the realization of its off-balance sheet commitment, except in the cases under paragraph 3

(3) The amounts obtained from the conversion of off-balance sheet items, which cannot be ascribed to a specific risk category, shall be booked as high-risk assets and their full book value shall be included in the risk component.

##### *Off-balance Sheet Items with a Conversion Factor of 0 Per Cent of Their Book Value*

**Article 18.** The off-balance sheet items with a conversion factor of 0 per cent of their book value shall be:

1. the bank's items which are reflected as off-balance sheet pro memoriam items and on which no payments by the bank may arise;
2. unused credit commitments with an original term of up to one year or credit line commitments that the bank may terminate unilaterally at any time without a prior notice;
3. revocable letters of credit;
4. guarantees and other instruments covered with cash deposits;
5. other risk-free balance sheet items.

##### *Off-balance Sheet Items with a Conversion Factor of 20 Per Cent of Their Book Value*

**Article 19.** Off-balance sheet items with a conversion factor of 20 per cent of their book value shall be:

1. documentary letters of credit where the subject of delivery serves as collateral, and the commitments under transactions with the bank's customers where the commitments terminate with the expiry of a specific period or with the fulfillment of another condition specified in the transaction;
2. all other items where the bank's obligation is of low likelihood to become due.

*Off-balance Sheet Items with a Conversion Factor of 50 Per Cent of  
Their Book Value*

**Article 20.** Off-balance sheet items with a conversion factor of 50 per cent of their book value shall be:

1. letters of credit opened and confirmed by the bank;
2. commitments under NIF and RUF transactions;
3. performance bonds, tender, customs and tax guarantees and other guarantees which are not of a credit substitute nature;
4. irrevocable stand-by letters of credit which are not of a credit substitute nature;
5. unused credit commitments with an original term of over one year;
6. sales and repurchase contracts, thereunder the transferor of the asset may demand that the bank, as a recipient of the asset, transfer the asset back;
7. all other items where the bank's obligation is of moderate likelihood to become due.

*Off-balance Sheet Items with a Conversion Factor of 100 Per Cent of  
Their Book Value*

**Article 21.** Off-balance sheet items with a conversion factor of 100 per cent of their book value shall be:

1. guarantees issued by the bank which are of a credit substitute nature;
2. bank acceptances and bills (avals) on customers' obligations;
3. irrevocable stand-by letters of credit which are of a credit substitute nature;
4. endorsements on bills of exchange and promissory notes under which no other banks are liable;
5. transactions on which counter claims against the bank may be lodged;
6. partially paid securities on margin accounts with brokers;
7. assets purchased under direct forward contracts;
8. all other items where the bank's obligation is of high likelihood to become due.

Section IV

**Counterparty Risk and Settlement Risk Capital Requirements**

*Counterparty Risk*

**Article 22.** (1) The banks applying market risk capital requirements to the trading book instruments shall calculate the capital requirements for the counterparty risk of unsettled transactions and free deliveries where:

1. they have paid for securities before receiving them or they have delivered securities before receiving payment for them;
2. in the case of cross-border transactions, one day or more has elapsed since they made that payment or delivery.

(2) In order to determine the capital requirements under paragraph 1, banks shall establish the value of the securities, commodities or cash owed to them.

(3) In the case of repurchase agreements and securities or commodities lending based on securities or commodities included in the trading book, the bank shall calculate the difference (which is a positive value) between:

1. the market value of the securities or commodities and the amount borrowed by the bank on repurchase agreements; or
2. the market value of the securities or commodities and the market value of the collateral on transactions for securities or commodities lending.

(4) In the case of reverse repurchase agreements and securities or commodities borrowing, the bank shall calculate the difference (which is a positive value) between:

1. the amount that the bank has lent and the market value of the securities or commodities which it has received under reverse repurchase agreements; or
2. the market value of the collateral and the market value of the securities or commodities which it has received under transactions for securities or commodities borrowing.

(5) (amended; Darjaven Vestnik, issue 55 of 2005) The value obtained under paragraphs 2, 3 and 4 shall be multiplied by the risk weight applicable to the respective counterparty and shall be part of the assets weighted for credit risk under Article 11, paragraph 3.

(6) (amended; Darjaven Vestnik, issue 55 of 2005) The capital requirement shall be 12 per cent.

*Special Requirements in Establishing the Risk Component of OTC  
Derivative Instruments for Counterparty Risk*

**Article 23.** (1) In order to establish the risk component of OTC derivative instruments, banks shall determine the credit equivalent according to the mark-to-market method as per Appendix 3.

(2) The credit equivalent for OTC derivative instruments shall be multiplied by the relevant risk weights in accordance with the counterparty and shall be included in the amount of assets weighted for credit risk under Article 11, paragraph 3 or 4.

(3) The derivative instruments traded only on a recognized exchange shall not be included in the calculation.

(4) The foreign exchange derivative instruments with an original maturity of up to 14 days shall not be included in the calculation, regardless of the exchange on which they are traded.

(5) The gold contracts with an original maturity of up to 14 days shall be included in the calculation, unless these are not traded on a recognized exchange and are not subject to daily margin requirements.

*Conditions for the Recognition of Netting Agreements on OTC  
Derivative Instruments*

**Article 24.** (1) (former Article 24; Darjaven Vestnik, issue 55 of 2005) The BNB may recognize as a credit risk reduction technique the netting agreements on OTC derivative instruments which meet all the following conditions:

1. these are in a written form;
2. they provide that in case of default, bankruptcy, liquidation of a party thereto and in other similar circumstances there will be one single obligation to (in case of a net negative market value) or one single claim on (in case of a net positive market value) the bank, and the preceding claims and obligations, being subject of the netting agreement, shall be considered extinguished;
3. the bank has submitted to the BNB an independent and substantiated legal opinion confirming that in case of appeal, the relevant courts of law or competent administrative authorities would admit that the bank's claim or obligation is limited to the net amount under item 2, in accordance with:
  - a) the law of the country where the counterparty is incorporated; and if a foreign branch of the counterparty is involved, also the law of the country where the branch is incorporated;
  - b) the law applicable to the transactions included in the netting agreement;
  - c) the law applicable to a contract or agreement required for the netting agreement to take effect;
4. the bank has in place procedures for validating the validity and the compliance of the netting agreement with the applicable laws under item 3;
5. after consultations with the relevant supervisory authorities of the countries whose laws apply to the netting agreement, the BNB has received a confirmation that these authorities accept the legal effect of the agreement;
6. the netting agreement contains no clause which allows the nondefaulting party to make only limited payments or not to make payments to the defaulting party, even in the cases where the defaulting party is the creditor of the net amount under item 2 ('walkaway' clause).

(2) (new; Darjaven Vestnik, issue 55 of 2005) The recognition of the netting agreements on OTC derivative instruments as a credit risk reduction technique shall be permitted by the Deputy Governor heading the BNB Banking Supervision Department based on a written application accompanied by the relevant documents proving compliance with the requirements under this Article.

*Effects of the Recognition of Netting Agreements*

**Article 25.** (1) When all the conditions under Article 24 are met, netting agreements shall be taken into account in calculating the credit equivalent of OTC derivative financial instruments.

(2) The credit equivalent shall be determined as a sum of the net replacement cost under paragraph 3 and the potential credit exposure under paragraph 4.

(3) The net replacement cost shall be the sum of the market values of all derivative contracts that would be obtained as a result of the effect of the netting agreement. When the sum is a positive figure, the replacement cost shall be equal to this sum. When the sum is a negative figure or nil, the replacement cost shall be included in the calculation as nil.

(4) The potential credit exposure for the recognized netting agreements shall be included in the formation of the credit equivalent, with a reduced value calculated by the following formula:

$RPCE(\text{net}) = 0.4 \times SPCE(\text{gross}) + 0.6 \times NGR \times SPCE(\text{gross})$ , where

RPCE (net) = the reduced value of the potential credit exposure for all contracts with the same counterparty covered by the netting agreement which meets the conditions under Article 24;

SPCE (gross) = the sum of the potential credit exposure values for all individual contracts covered by the netting agreement, calculated by multiplying their contractual (notional) amounts by the relevant percentage specified in the table in Appendix 3;

NGR = the net/gross ratio shall be calculated on a counterparty basis as the coefficient of the net to gross replacement costs for all contracts covered by the netting agreement with a counterparty. The gross replacement cost shall be the sum of the positive market values of the individual contracts.

(5) In determining the value of the potential credit exposure for foreign exchange contracts, whose notional amount of the principal is equal to the cash flows, and the amounts to be received or paid become due on the same date and are denominated in the same currency (fully matching), the netting agreement shall be fully taken into account. In the case of these foreign exchange contracts, the percentages specified in the table in Appendix 3 shall apply to the net effective amount of the principal fixed in the netting contract.

### *Settlement Risk*

**Article 26.** (1) In case of transactions whose subject is debt, equity and commodity instruments (except repurchase agreements, reverse repurchase agreements, and the transactions for lending/borrowing securities or commodities), which have not been settled after their due delivery dates, banks shall calculate the price difference to which they are exposed.

(2) The price difference under paragraph 1 shall be the difference between the settlement price agreed for an instrument and its current market price, when the difference may result in a loss to the bank.

(3) The price difference under paragraph 2 shall be multiplied by the relevant potential loss factor in Column 2 of Table 1.

Number of business days after the delivery date	Factor %
1	2
5 – 15	8
16 – 30	50
31 – 45	75
46 and more	100

(4) The total obtained under paragraph 3 shall be multiplied by 8.334 and shall be included in the assets weighted for credit risk under Article 11, paragraph 3.

### *Chapter Four*

## MARKET RISK CAPITAL REQUIREMENTS

### Section I

#### **General Provisions**

**Article 27.** (1) Market risk shall be the risk of losses, arising from movements in the market prices of debt (interest rate related) and equity instruments in the trading book and of foreign exchange and commodity instruments in the trading and banking books.

(2) Market risk shall include:

1. the position risk of debt instruments in the trading book;
2. the position risk of equity instruments in the trading book;
3. the foreign exchange risk in the trading and banking books;
4. the commodities risk in the trading and banking books.

(3) The capital requirement for market risk shall be calculated by one of the following approaches:

1. the sum of the market risk capital requirements calculated by the standardized approach; or
2. the sum of the market risk capital requirements calculated by an internal models approach in line with Section VI of this Chapter, or
3. a combination of the two approaches.

### Section II

#### **Position Risk Capital Requirements**

##### *Definition and Components of Position Risk*

**Article 28.** (1) Position risk shall be the risk of a change in the prices of instruments in the trading book.

(2) Position risk shall include two components:

1. specific position risk shall be the risk of a change in the price of an instrument due to factors related to its issuer or in the case of a derivative, to the issuer of the underlying asset;

2. general position risk shall be the risk of a change in the price of an instrument due to a change in the interest rate level in the case of a traded debt instrument or debt derivative, or as a result of capital market changes in the case of an equity instrument (equities or equity interests) or equity derivative, unrelated to specific characteristics of individual instruments.

(3) The calculation of capital requirements for specific and general position risk shall be made by applying the standardized approach under this Section, or an internal models approach within the meaning of Section VI of this Chapter.

(4) The position risk shall be calculated as the sum of the resulting values of:

1. the specific risk of debt instruments as per Article 32, paragraph 4;

2. the general risk of debt instruments as per Article 34, paragraph 10, and Article 35, paragraph 6, respectively;

3. the specific risk of equity instruments as per Article 37, paragraph 3;

4. the general risk of equity instruments as per Article 38, paragraph 3.

(5) The sum under paragraph 4 shall be multiplied by 8.334 and shall participate in the denominator for capital adequacy ratios under Article 8 as risk-weighted positions for position risk.

### *Calculation of Net Positions*

**Article 29.** (1) The net position shall be the excess of a bank's long (short) positions over its short (long) positions in the same equity instruments, debt instruments, convertible securities and equivalent financial futures, options, warrants and covered warrants.

(2) Netting of short and long positions in a financial instrument shall be allowed where they are of the same issuer, of the same currency and terms of coupon, fall due on the same date and are treated identically in case of insolvency.

(3) When calculating the net position, the positions in derivative instruments shall be treated as positions in the underlying securities. The derivatives shall be converted into positions in the underlying assets and the amounts involved shall be the market values of the underlying instrument(s).

(4) All net positions (positive or negative) shall be recalculated on a daily basis into their lev equivalent at the BNB's exchange rate.

### *Treatment of Specific Instruments*

**Article 30.** (1) Interest rate futures, forward rate agreements (FRAs) and forward commitments to buy or sell debt instruments shall be treated as combinations of long and short positions, such as:

1. a long interest rate future position shall be treated as a combination of a borrowing maturing on the delivery date of the futures contract and a holding of an asset

with maturity date equal to that of the instrument or the notional position underlying the futures contract in question;

2. a sold FRA shall be treated as a long position with a maturity date coinciding with the settlement date plus the contract period, and as a short position with maturity date coinciding with the settlement date.

3. a forward commitment to buy a debt instrument shall be treated as a combination of a borrowing maturing on the delivery date and a long (spot) position in the debt instrument itself.

4. When calculating the capital requirement for specific risk of the instruments under items 1 and 2, both the borrowing and the asset held shall be included under the Central Government Positions column in Table 2 of Article 32 since they carry 0 specific risk;

5. When calculating the capital requirement for specific risk of the instrument under item 3, the loan shall be included under the Central Government Positions column in Table 2 of Article 32, as it attracts 0 specific risk, and the debt instrument under the relevant column in Table 2 of Article 32.

(2) Options on interest rates, debt instruments, equity instruments, equities indices, financial futures and swaps shall be treated as positions equal in value to the amount of the underlying instrument, to which the option refers, multiplied by its delta, and shall be included in the calculation of the market risk capital requirements depending on the type of the underlying instrument. The calculation of the delta of the options shall be carried out pursuant to Article 47.

(3) Warrants relating to debt or equity instruments shall be treated in the same way as the options under paragraph 2.

(4) Swaps shall be treated in the same way as balance sheet instruments, such as:

1. interest rate swap under which a bank receives floating rate interest and pays fixed rate interest, shall be treated as a combination of a long position in a floating rate interest instrument of maturity equivalent to the period until the next interest fixing (reprising), and as a short position in a fixed rate instrument with the same maturity as the swap itself;

2. for swaps, where a fixed or floating interest is paid or received against another reference rate (such as an exchange index or other), the interest component is included in the measurement of the interest rate risk (the risk associated with debt instruments), and the capital component in the measurement of the risk associated with equity instruments;

3. the individual legs of the currency swap shall be reported in the maturity ladders of the relevant types of currency.

(5) For repo transactions and securities lending transactions, which meet the criteria for inclusion in the trading book, the transferor of the securities or guaranteed rights relating to title to securities in a repurchase agreement and the lender of securities shall include these securities when calculating their capital requirement under this Chapter.

(6) Hybrid (combined) instruments which consist of several components shall be split into an interest rate component and an equity component, and convertible bonds shall be treated as bonds where the conversion would involve a loss, and as equity where the conversion would involve a profit for the bank.

### *Debt Instruments*

**Article 31.** (1) The capital requirement against position risk associated with debt instruments shall be equal to the sum of the specific risk capital requirement and the general risk capital requirement.

(2) The capital requirement for general and specific risk arising from debt instruments shall be calculated by applying the standardized approach of Article 32 to Article 35.

(3) The banks shall be allowed to calculate the capital requirements for general risk also by using internal models as per Section VI of this Chapter.

(4) The banks shall classify their net positions in debt instruments according to the currency in which they are denominated, and shall calculate their capital requirements for general and specific risk for each currency separately.

### *Specific Risk of Debt Instruments*

**Article 32.** (1) The capital requirement for specific risk shall protect against an adverse movement in the price of a debt instrument as a result of factors related to its issuer.

(2) In measuring the risk, netting shall be restricted to positions in identical issues as per Article 29, paragraph 2 (including positions in derivatives).

(3) The banks shall include their net positions in their trading book under the relevant categories of Table 2 based on their issuers and residual term to maturity, and shall afterwards multiply them by the specified weights.

Table 2

Positions of central governments (amended; Darjaven Vestnik, issue 55 of 2005)	Qualifying positions			Other
1	2	3	4	5
	up to 6 months	above 6 and up to 24 months	above 24 months	
0.00%	0.375%	1.5%	2.4%	12%

(4) The total amount obtained pursuant to paragraph 3 shall be the specific risk measurement of the debt instruments.

### *General Risk of Debt Instruments*

**Article 33.** (1) The general risk arising from positions in debt financial instruments shall be the risk of price changes as a result of movement in the overall level of interest rates.

(2) When calculating the general position risk arising from debt financial instruments the banks shall apply a maturity-based or a duration-based approach.

(3) The banks shall be allowed to move to or suspend applying a duration-based approach only upon BNB's approval.

(3a) (new; Darjaven Vestnik, issue 55 of 2005) The application of a duration-based approach shall be permitted by the Deputy Governor heading the BNB Banking Supervision Department based on a written application accompanied by the relevant documents.

(4) When applying each of the approaches under paragraph 2 the debt instruments shall be allocated by currency. A separate maturity ladder shall be constructed for each individual currency and the capital requirements for each currency shall be calculated separately. The capital requirements by individual currency shall be summed up with no offsettings between positions of opposite signs.

### *Maturity-based Approach*

**Article 34.** (1) When applying the maturity-based approach to calculate the capital requirements for general position risk of debt instruments, the banks shall weigh its net positions in the respective debt instrument by taking account of their maturity. The long and short positions in debt instruments shall be included in the maturity bands (columns 2 or 3) of Table 3 grouped under three zones.

(2) Instruments with a fixed interest rate shall be allocated according to their residual term to maturity and the instruments with a floating rate in accordance with their residual term to the next reprising date.

(3) The net position in each debt instrument shall be included under the relevant maturity band in Table 3 according to the coupon rate and shall be weighted by the respective risk weight.

Table 3

Zone	Maturity band		Weight (in %)
	Coupon rate of 3% or above	Coupon rate below 3%	
1	2	3	4
I	0 ≤ 1 month	0 ≤ 1 month	0.00
	> 1 ≤ 3 months	> 1 ≤ 3 months	0.30
	> 3 ≤ 6 months	> 3 ≤ 6 months	0.60
	> 6 ≤ 12 months	> 6 ≤ 12 months	1.05
II	> 1 ≤ 2 years	> 1 year ≤ 1 year and 9 months	1.875
	> 2 ≤ 3 years	> 1 year and 9 months ≤ 2 years and 8 months	2.625

	> 3 ≤ 4 years	> 2 years and 8 months ≤ 3 years and 6 months	3.375
III	> 4 ≤ 5 years	> 3 years and 6 months ≤ 4 years and 3 months	4.125
	> 5 ≤ <sup>2</sup> 7 years	> 4 years and 3 months ≤ 5 years and 7 months	4.875
	> 7 ≤ 10 years	> 5 years and 7 months ≤ 7 years and 3 months	5.625
	> 10 ≤ 15 years	> 7 years and 3 months ≤ 9 years and 3 months	6.75
	> 15 ≤ 20 years	> 9 years and 3 months ≤ 10 years and 6 months	7.875
	> 20 years	> 10 years and 6 months ≤ 12 years	9.00
		> 12 ≤ 20 years	12.00
	> 20 years	18.75	

(4) The bank shall sum up the separately weighted long and short positions in each maturity band. The amount of the weighted long positions shall be matched by the amount of the weighted short positions in a given maturity band in order to obtain a matched weighted position for that band. The residual long or short positions shall be the unmatched weighted position for that band.

(5) The matched weighted position in a given maturity band shall be the smaller of the weighted long and short positions in the band, and the unmatched position shall be the difference between them.

(6) The bank shall sum up the matched weighted positions in all maturity bands.

(7) The bank shall sum up the totals of the unmatched weighted long, respectively short, positions for the bands included in each of the three zones. The derived long and short weighted positions for each zone shall be matched in order to obtain a matched weighted position for each zone. The remaining unmatched part of the weighted long or short position shall be the unmatched weighted position for that zone.

(8) In order to obtain the matched weighted position between zone I and zone II, the bank shall match the unmatched weighted long (short) position in zone I with the unmatched weighted short (long) position in zone II. The same matching shall be undertaken between the unmatched weighted positions in zone II and zone III and between zone III and zone I.

(9) The remainder of the unmatched weighted positions between the zones under paragraph 8 shall be summed up.

(10) The capital requirement shall be calculated as the sum of:

1. 10 per cent of the sum of the matched weighted positions in all maturity bands;
2. 40 per cent of the matched weighted position in zone I;
4. 30 per cent of the matched weighted position in zone III;

- 5. 40 per cent of the matched weighted position between zone I and zone II, and between zone II and zone III;
- 6. 150 per cent of the matched weighted position between zone I and zone III;
- 7. 100 per cent of the residual unmatched weighted positions.

*Duration-based Approach*

**Article 35.** (1) Following the duration-based approach the bank shall calculate the yield to maturity of its debt instruments by using the market value for its fixed rate instruments, and for its floating rate instruments, the assumption that the principal is due on the date of the next change of the interest rate.

(2) After calculating the yield to maturity, the bank shall calculate the modified duration of each debt instrument by applying the following formula:

Modified  $(D)/(1 + r)$ ,  
 where:

$$D = \frac{\sum_{t=1}^m \frac{tC_t}{(1+r)^t}}{\sum_{t=1}^m \frac{C_t}{(1+r)^t}}$$

$r$  = yield to maturity;  
 $C_t$  = cash payment in time  $t$ ;  
 $m$  = maturity.

(3) The bank shall assign each debt instrument to the appropriate zone in Table 4 on the basis of its modified duration.

Table 4

Zone	Modified duration (in years)	Assumed interest rate change (in %)
1	2	3
I	0 to 1	1.5%
II	1 to 3.6	1.275%
III	Over 3.6	1.05%

(4) The duration-weighted position for each instrument shall be calculated by multiplying its market price by its modified duration and by the assumed interest rate change.

(5) The bank shall calculate its duration-weighted long and short positions in each zone. The matched and unmatched weighted positions on a duration basis shall be determined pursuant to Article 34, by assuming that each zone consists of one band.

(6) The capital requirement for general position risk of the duration-weighted debt instruments shall be the sum total of:

1. 2 per cent of the matched duration-weighted position for each zone;
2. 40 per cent of the matched duration-weighted positions between zone I and zone II, and between zone II and zone III;
3. 150 per cent of the matched duration-weighted position between zone I and zone III;
4. 100 per cent of the residual unmatched duration-weighted positions.

### *Equity Instruments*

**Article 36.** (1) Capital requirements for position risk related to equity instruments shall equal the amount of capital requirements for specific and general risk.

(2) The capital requirement for specific risk arising from equity instruments shall be established through the total gross equity position, and for general risk, through overall net position of a bank.

(3) To calculate the respective capital requirements, the bank shall distribute its net positions of instruments among countries in which they have been listed on stock exchanges and/or traded.

### *Specific Risk for Equity Instruments*

**Article 37.** (1) The overall gross position shall be the sum total of the absolute values of the bank's net long positions and net short positions pursuant to Article 29.

(2) The overall gross position shall be calculated separately for each issuer.

(3) The capital requirement for specific risk shall account for 6 per cent of the overall gross position.

### *General Risk for Equity Instruments*

**Article 38.** (1) (amended; Darjaven Vestnik, issue 55 of 2005) The overall net position shall be the difference between the net long positions and net short positions of the bank in equity instruments in compliance with Article 29.

(2) The overall net position shall be calculated separately for each national market.

(3) The capital requirement for general risk shall be the institution's overall net position multiplied by 12 per cent.

(4) The capital requirement shall be 12 per cent for stock-index futures which are exchange traded. They shall be included in calculation of the overall net position on equity instruments for general risk under paragraph 3 but disregarded in the calculation of the overall gross position for specific risk under Article 37, paragraph 3.

(5) If a stock-index future is not broken down into its underlying positions, it shall be treated as if it were an individual equity instrument for which the capital requirements for specific risk and general risk shall be determined.

*Underwriting*

**Article 39.** In the case of the underwriting of debt and equity instruments, the bank shall follow the procedure in calculating its net positions, as follows:

1. the net positions shall be calculated by deducting the underwriting positions which are subscribed or subunderwritten by third parties on the basis of formal agreements;
2. the net positions shall be reduced by the following reduction ratios:

Table 5

Working day	Reduction ratio
Working day 0	100%
Working day 1	90%
Working day 2 to 3	75%
Working day 4	50%
Working day 5	25%
After working day 5	0%

3. capital requirements shall be calculated using the reduced underwriting positions;

4. working day zero shall be the working day on which the bank becomes unconditionally committed to accepting a known quantity of securities at an agreed price.

5. where an issue of debt instruments is underwritten, the reduced positions shall be included in calculating the capital requirements for general risk position and specific risk position of the debt instruments;

6. where an issue of equity instruments is underwritten, the reduced positions shall be included in calculating the capital requirements for general risk position and specific risk position of the equity instruments.

Section III

**Capital Requirements for Foreign Exchange Risk**

*General Provisions*

**Article 40.** (1) The bank shall calculate the capital requirement for foreign exchange risk ensuing from the positions in the banking and trading books where the sum total of the overall net open foreign exchange position and the net gold position exceeds 2 per cent of own funds.

(2) The capital requirement for foreign exchange risk shall be calculated by multiplying the bank’s overall net open foreign exchange position and the net gold position by 12 per cent.

(3) The sum total of the overall net open foreign exchange position and the net gold position shall be the risk-weighted positions for foreign exchange risk and it shall be included in the denominator of the capital adequacy ratios under Article 8.

(4) The capital requirement for foreign exchange risk may be calculated under the terms and procedure of Section VI of this Chapter.

(5) Overall net foreign exchange position shall be calculated as follows:

1. the net position shall be calculated in each individual currency separately, including gold;
2. the net positions in each individual currency shall be recalculated in levs at the BNB current exchange rate;
3. individual net long positions and net short positions, with the exception of positions denominated in euro, shall be summed separately;
4. overall net foreign exchange position shall be the larger one of the overall net long position and the overall net short position.

#### *Determining Positions in an Individual Currency*

**Article 41.** (1) The net open position (positive or negative) of a bank in each individual currency shall consist of the sum of the following elements:

1. the net spot position shall be the difference between assets and liabilities in the currency in question, including accrued interest;
2. the net forward position (the difference between the amounts to be received and the amounts to be paid under forward foreign exchange and gold transactions, including foreign exchange and gold futures and the principals on foreign exchange swaps not included in the spot position);
3. irrevocable guarantees and similar instruments in the currency in question that are certain to be called;
4. the net delta equivalent of foreign exchange and gold options calculated under the procedure provided for in Section V of this Chapter;
5. the market value of options other than those under item 4.

(2) Forward foreign exchange and gold positions shall be evaluated at current spot market rates.

#### *Limits for Foreign Exchange Positions*

**Article 42.** (1) Banks shall observe daily:

1. the maximum ratio of 15 per cent between the net open position in each foreign currency and the amount of own funds, with the exception of euro;
2. the maximum ratio of 30 per cent between the overall net foreign exchange position and the amount of own funds.

(2) Foreign banks' branches shall report their positions in foreign currency without observing any ratios to the bank's own funds.

## Section IV

**Capital Requirements for Commodities Risk***General Provisions*

**Article 43.** (1) Banks shall calculate capital requirements for covering the risk associated with positions in commodities or commodity derivatives (commodity positions) of the banking and trading books.

(2) The commodity positions are positions in:

1. precious metals (except gold), agricultural products, mineral resources, metals, *etc.*;

2. derivatives and other financial instruments relating to commodities.

(3) Each position in commodities shall be expressed in terms of the standard unit of measurement (kilograms, barrels, *etc.*) at the spot price expressed in levs at the BNB exchange rate.

(4) The net commodity position shall be the difference between the long and short positions of the respective commodity.

*Particular Instruments*

**Article 44.** (1) The positions in commodity derivatives shall be treated as if they were positions in underlying commodities (long and short notional positions) assigned a maturity with reference to the expiry date (exercising).

(2) Commodity futures and forward commitments to buy or sell individual commodities shall be measured as notional amounts in terms of the standard unit of measurement for the underlying commodity.

(3) In commodity swaps the positions shall be long if the bank is paying a fixed price on an obligation and receiving a floating price on a receivable, and short if the bank is receiving a fixed price on a receivable and paying a floating price on an obligation.

(4) Options on commodities or on commodity derivatives shall be treated as if they were positions equal in value to the amount of the underlying asset to which the option refers, multiplied by its delta determined in accordance with Section V of this Chapter.

(5) Warrants relating to commodities shall be treated in the same way as commodity options under paragraph 4.

(6) The transferor of commodities or guaranteed rights relating to title to commodities in a repurchase agreement and the lender of commodities in a commodities lending agreement shall include such commodities in the calculation of its capital requirement in accordance with this Section.

*Calculation of the Capital Requirement for Commodities Risk*

**Article 45.** (1) The overall capital requirement for commodities risk shall be calculated as the sum total of the capital requirements calculated for each commodity.

(2) The capital requirement for an individual position in commodity shall be the amount of:

1. 22.5 per cent of the long net position or short net position in each commodity;
2. 4.5 per cent of the gross position (the sum total of the long and the short positions).

(3) The sum total under paragraph 2 shall be multiplied by 8.334 and shall be included in the denominator of the capital adequacy ratios under Article 8 as risk-weighted positions for commodities risk.

(4) Banks may use internal models in accordance with the procedure of Section VI of this Chapter to calculate the capital requirement for commodities risk.

## Section V

### Treatment of Options

#### *General Provisions*

**Article 46.** (1) Positions in options shall include stock-exchange and over-the-counter options and option-like instruments.

(2) To calculate the option positions, the options for instruments composed of two components (swap options, futures options) shall be divided into these components.

#### *Delta of Options*

**Article 47.** (1) Delta ( $\delta$ ) of the option shall mean the change in the option price as a result of a small change in the price of the instrument underlying the option. In mathematical terms, delta is the first derivative of the function of the option price with respect to the price of the underlying instrument.

$$\delta = \frac{\delta \text{ of the option price}}{\delta \text{ of the price of the underlying instrument}}$$

(2) In calculation of capital requirements, delta-equivalent positions in the underlying instruments shall be treated as if they were:

1. purchased call options as a long position;
2. written call options as a short position;
3. purchased put option as a short position; and
4. written put option as a long position.

## Section VI

### Internal Models

#### *General Provisions*

**Article 48.** (1) With the permission of the BNB, banks may use internal models to calculate their capital requirements for position risk, foreign exchange risk and/or commodities risk.

(2) The BNB shall issue a permit under paragraph 1 where:

1. the bank has applied the internal model for internal purposes for at least three years, and the bank's capital requirements have been reported to the BNB for at least one year under the approach based on internal models in addition to the standardized approach;

2. the qualitative and quantitative criteria under Articles 49 and 50 have been met.

(3) (new; Darjaven Vestnik, issue 55 of 2005) The use of the internal model to calculate the capital requirements for position risk, foreign exchange risk and/or commodities risk shall be permitted by the Deputy Governor heading the BNB Banking Supervision Department based on a written application accompanied by the relevant documents.

#### *Qualitative Standards*

**Article 49.** The bank's risk-management system shall meet the following qualitative standards:

1. the internal risk-management model shall be integrated into the bank's daily risk-management process and it will serve as the basis of reporting risk exposures to the bank's competent managing authorities;

2. a risk-control unit that is independent from business trading units and reports daily to the bank's competent managing authorities shall be established. This unit shall be responsible for:

a) designing and implementing the risk-management system;

b) producing and analyzing daily reports on the output of the risk-measuring model, and on the appropriate measures to be taken in terms of risk limits;

3. the bank's competent managing authorities shall be actively involved in the risk-control process, and the reports produced by the risk-control unit shall be reviewed by them; they shall make decisions on reducing the positions taken by individual dealers and/or the bank's overall risk exposure where necessary;

4. the bank shall have a sufficient number of staff skilled in the use of overall internal risk-control models and processes;

5. the bank shall establish procedures for monitoring and complying with the internal policies ensuring the overall operation and control of the risk-measuring system adopted in writing by the competent managing authority. The risk-measuring

system shall be duly furnished with a set of documents describing the risk-management system's main principles and the empirical techniques used in risk measuring;

6. the output of risk-measuring models shall have a proven track record of accuracy;

7. the bank shall conduct stress tests regularly (not less than once a month/every three months) and their results shall be reviewed by the bank's competent managing authorities and reflected in the policies and limits they set;

8. the bank's internal control unit shall review the risk-measuring system. This review shall include both the activities of the business trading units and of the risk-control unit. At least once a year, the bank shall conduct a review of its overall risk-management process. The review shall consider:

a) the completeness and adequacy of the risk-management system and process documentation and the risk-control unit organization;

b) the integration of market-risk measures into daily risk management;

c) the process for approving risk-measuring models and evaluation systems which are used by a front and back-office;

d) the scope of market risks captured by the risk-measurement model and the validation of any significant changes in the risk-measurement process;

e) the accuracy and completeness of position data, the accuracy of volatility and correlation assumptions, and the accuracy of evaluation and risk sensitivity calculations;

f) the verification process the bank employs to evaluate the consistency, timeliness and reliability of data used to run internal models, including the independence of such data sources; and

g) the verification process the bank uses to evaluate back-testing (consecutive testing) that is conducted to assess the model's accuracy.

### *Quantitative Standards*

**Article 50.** (1) The calculation of value-at-risk shall be subject to the following minimum quantitative standards:

1. the value-at-risk shall be calculated daily;

2. a 99th percentile, one-tailed confidence interval shall be used;

3. the value-at-risk shall be calculated for a ten-day equivalent holding period;

4. the calculation of the value-at-risk shall be based on a historical observation period of at least one year; the BNB may enforce a shorter observation period in case of a significant upsurge in price volatility;

5. data used in calculating the value-at-risk shall be updated at least once every three months, and each time market prices are subject to significant changes.

(2) The model shall capture material risks related to options in each risk category.

### *Risk Factors*

**Article 51.** (1) The risk-measurement model shall capture all material risk factors, depending on the bank's activity in the respective markets.

(2) In setting the risk factors, the minimum provisions of Articles 52 to 55 shall be observed.

#### *Risk Relating to Debt Instruments*

**Article 52.** (1) The interest-rate risk measuring system shall incorporate risk factors corresponding to the interest rates in each currency in which the bank has interest-rate sensitive positions.

(2) The risk-measurement system shall model the yield curve using one of the generally accepted approaches. For material exposures to interest-rate risk in the major currencies and markets, the yield curve shall be divided into a minimum of six maturity segments, one risk factor corresponding to each maturity segment.

(3) The risk-measurement system shall capture the risk of less than perfectly correlated movements between different yield curves.

#### *Risk Relating to Equity Instruments*

**Article 53.** Risk factors for each of the equity markets in which the bank holds positions shall be set to the risk relating to equity risk.

#### *Foreign-exchange Risk*

**Article 54.** The risk-measurement system shall incorporate risk factors corresponding to gold and to the individual foreign currencies in which the bank's positions are denominated.

#### *Commodities Risk*

**Article 55.** (1) Regarding the commodities risk, a risk factor for each position in commodities shall be determined.

(2) The risk-measurement system shall capture the risk of:

1. less than perfectly correlated movements between similar, but not identical commodities;
2. changes in forward prices arising from maturity mismatches.

#### *Capital Requirements*

**Article 56.** (1) Banks which use an internal model approved by the BNB shall meet a capital requirement expressed as the higher of:

1. the value-at-risk for the previous day; or
2. the average of the daily values-at-risk measures on each of the preceding 60 business days, multiplied by the multiplication factor under paragraph 2 or by the increased multiplication factor under paragraph 3.

(2) The minimum multiplication factor shall be 4.5.

(3) The multiplication factor under paragraph 2 shall be increased by a plus-factor of between 0 and 1.5 (Table 6) depending on the number of overshootings for the most recent 250 business days as evidenced by the back-testing.

Table 6

Number of overshootings	Plus-factor
1	2
Fewer than 5	0.00
5	0.60
6	0.75
7	0.975
8	1.125
9	1.275
10 or more	1.5

(4) The value obtained under paragraph 1 multiplied by 8.334 shall be the risk-weighted positions for the corresponding market risk and shall be included in the denominator of the banks' capital adequacy ratios which measure market risks on the basis of internal models approved under this Ordinance.

(5) An overshooting shall be a one-day change in the portfolio's value which exceeds the related value-at-risk measure generated by the model.

(6) The overshootings shall be calculated consistently either on the basis of actual or on hypothetical changes in the portfolio's value.

(7) For the purpose of determining the plus-factor, the number of overshootings shall be assessed at least quarterly or more frequently if necessary.

(8) The bank shall notify no later than within five business days the BNB of overshootings identified by means of back-testing which would imply an increase in the plus-factor.

(9) If numerous overshootings indicate that the model is not sufficiently accurate, the BNB may revoke the model's recognition or impose additional requirements to improve the model.

(10) Market risks not comprised in the model shall be covered with own funds based on standardized approaches.

### *Back-testing*

**Article 57.** (1) Each bank which uses models of calculating capital requirements in respect of a market risk, shall conduct back-testing programs to monitor the accuracy of its model and determine the adequate multiplication factor.

(2) Back-testing shall include the calculation of differences between the actual value-at-risk and the value-at-risk determined by the model according to the parameters as defined in Article 50.

- (3) The actual value-at-risk shall be calculated in two ways:
1. on the basis of the actual daily profit or loss;
  2. on the basis of hypothetical changes in the one-day portfolio's value based on an assumption that the final positions of the preceding day are unchanged.
- (4) In case of need the BNB shall require improvements in back-testing programs if the results are deemed deficient.

### *Stress-testing*

**Article 58.** (1) A bank which uses internal models of calculating capital requirements in respect of a market risk, shall maintain stress-testing programs.

(2) If the assumptions of the model do not apply any longer or assumptions are based on exceptional circumstances, the bank shall conduct stress-testing to identify risks the bank is exposed to.

(3) Stress testing shall cover factors which create extraordinary losses or gains in the trading portfolios, or make risks in those portfolios difficult to control.

(4) Upon giving a permit to use an internal model, the BNB shall review the procedures of conducting stress-testing and the results thereto.

### *Combination of Internal Models and a Standardized Methodology*

**Article 59.** (1) Where a bank uses internal models of calculating capital requirements in respect of a given risk category (position, foreign-exchange, market risk), risks shall not be measured according to a standardized methodology.

(2) An exception under paragraph 1 shall be allowed where the BNB withdraws the approval granted to the bank to use the model.

(3) Where a bank uses a combination of an internal model and a standardized methodology, the capital requirement shall be calculated as a sum of the capital requirements calculated by the standardized approach and those calculated by applying the internal model.

## *Chapter Five*

### REPORTING OF CAPITAL ADEQUACY

#### *Reports on the Capital Adequacy*

**Article 60.** (1) (amended; Darjaven Vestnik, issue 55 of 2005) Banks shall draw up a report on the capital adequacy based on the balance sheet as of the closing date of each month. By the 15th day of the next month, the report shall be submitted to the Banking Supervision Department of the BNB.

(2) (repealed; Darjaven Vestnik, issue 55 of 2005)

(2) (former paragraph 3; Darjaven Vestnik, issue 55 of 2005) Each parent bank shall draw up and submit to the Banking Supervision Department of the BNB a consolidated report on the capital adequacy twice a year in compliance with the provi-

sions of this Ordinance and Ordinance No. 12 of the Bulgarian National Bank on the supervision on a consolidated basis.

(3) (former paragraph 4; Darjaven Vestnik, issue 55 of 2005) The Deputy Governor heading the Banking Supervision Department at the BNB shall give mandatory instructions on the manner of drawing up and submitting the report on the capital adequacy.

### *Additional Information*

**Article 61.** The Deputy Governor heading the Banking Supervision Department at the BNB may require from banks additional information on each position in the report on the capital adequacy.

## *Chapter Six*

### ADJUSTMENT OF THE OWN FUNDS AND CONTROL OVER THE VERACITY OF DATA

#### *Adjustment of Capital*

**Article 62.** (1) Where a bank has ascertained noncompliance with the requirements specified in Article 2 and Article 8 of this Ordinance, it shall notify immediately the Deputy Governor heading the Banking Supervision Department at the BNB of this circumstance and draw up a rehabilitation program, including deadlines for meeting the capital adequacy requirements in accordance with the Law on Banks and this Ordinance. This program shall be approved by the Deputy Governor heading the Banking Supervision Department at the BNB.

(2) In case of noncompliance with the program under paragraph 1, the BNB shall apply the measures and penalties provided for in the Law on Banks.

(3) During the period of implementation of the program under paragraph 1, the bank shall not pay out dividends.

#### *Prohibition on Distribution of Profits Whereby the Capital Adequacy Requirements Are Violated*

**Article 63.** Banks shall not distribute in the form of dividends or in any other form of capital distribution profits which under this Ordinance have been included as an element of their own funds, as well as where they violate requirements established by this Ordinance.

#### *Control over the Veracity of Data*

**Article 64.** (1) Banking supervision authorities shall conduct examinations on the veracity of reports and for compliance with the rules for establishing the total risk component, including on-site inspections and comparison between the data on the report and the accounts of banks.

(2) Auditors under Article 61, paragraph 2 of the Law on Banks shall conduct verification, reflect in their report and give opinion on:

1. the degree of correct weighting of the risk of individual positions with a view to establishing the actual capital adequacy;

2. the condition of the reporting and the regularity of the bank position assessments in conformity with the requirements of legislation.

(3) The auditors' opinion shall contain an assessment of the risk exposures and the capital adequacy of banks.

## *Chapter Seven*

### SUPERVISION CHARGES

**Article 65.** The BNB shall collect administrative charges for considering applications and documents with regard to granting permissions under this Ordinance, as follows:

1. for granting a permission under Article 5, paragraph 4: BGN 500;

1a. (new; Darjaven Vestnik, issue 55 of 2005) for granting a permission under Article, 24 paragraph 2: BGN 500.

1b. (new; Darjaven Vestnik, issue 55 of 2005) for granting a permission under Article 33, paragraph 3a: BGN 500.

2. (amended; Darjaven Vestnik, issue 55 of 2005) for granting a permission under Article 48, paragraph 3: BGN 2000.

### **Additional Provision**

§ 1. Within the meaning of this Ordinance:

1. 'parent bank' shall be defined within the meaning of § 1, item 1 of the Additional Provision of Ordinance No. 12 of the Bulgarian National Bank on the supervision on a consolidated basis;

2. 'delta' shall mean the expected change in an option price as a proportion of a small change in the price of the instrument underlying the option;

3. 'over-the-counter (OTC) derivative instruments' shall mean contracts which are not traded on a recognized stock exchange where they would be subject of daily requirements for an additional margin;

4. 'qualifying items' shall mean long and short positions in the assets assigned a risk weighting of 20 per cent;

5. 'convertible security' shall mean a security which, at the option of the holder, may be exchanged for another security, usually the equity of the issuer;

6. 'NIF (note issuance facility)' shall be a loan transaction connected with the issuance of securities by a customer through the intermediation and under the management of the bank, where the bank sets a limit for the customer up to which it accepts to buy back the securities issued by the customer on this transaction;

7. 'repurchase agreement' and 'reverse repurchase agreement' shall mean any agreement in which securities or commodities or guaranteed rights relating to title to securities or commodities, subject to a commitment to repurchase them (or substituted securities or commodities of the same description), are transferred at a specified price on a future date specified, or to be specified by the transferor. The agreement does not allow the transferor to transfer or pledge a particular security or commodity to more than one counterparty at the same time. The agreement is a repurchase agreement for the institution selling the securities or commodities and a reverse repurchase agreement for the institution buying them;

8. 'RUF (revolving underwriting facility)' shall be a loan transaction, a version of NIF, where not a bank but a group of banks intermediates in the issuance of customer's securities, setting a limit, usually covering the full amount of the issue, up to which the group of banks accepts to buy the securities issued by the customer, in case the securities are not sold, and up to the amount of the announced issue which is not sold through the public subscription;

9. 'central government items' shall mean long and short positions in the assets assigned a risk weighting of 0 per cent;

10. 'securities or commodities lending' and 'securities or commodities borrowing' shall mean any transaction in which securities or commodities are transferred against appropriate collateral. The borrower undertakes to returning equivalent securities or commodities at some future date or when requested to do so by the transferor. The transaction is securities or commodities lending for the institution transferring the securities or commodities and securities or commodities borrowing for the institution to which they are transferred;

11. 'recognized stock exchanges' shall be the stock exchanges which meet the following requirements:

a) they function regularly;

b) they have rules issued or approved by the competent authorities of the country where the exchange is headquartered, which determine conditions of operating and gaining access to the exchange, as well as conditions which shall be satisfied by a contract prior to effectively trading on the stock exchange;

c) they have a clearing mechanism which provides for contracts as specified in Appendix 4 to be subject of daily margin requirements ensuring an appropriate protection according to the competent authorities;

12. 'directly and unconditionally guaranteed claim' shall be a claim on which a guarantee meeting the following requirements shall be issued:

a) the guarantee ensures an unconditional payment in favor of the bank at first request excluding the possibility of objecting or arranging other formal conditions for payments; and

b) the guarantee shall be irrevocable and its term of validity shall be longer than the agreed term for repayment of the guaranteed obligation; and

c) the sole condition for its presentation is submission to the guarantor of a written request by the bank in favor of which the guarantee is issued; the request shall contain a statement that the debtor does not service the obligation covered by the guarantee; and

d) there are no other persons entitled to lay claims on the guarantee; and

e) except for the amount, there is a full coincidence between the customer's obligation to the bank (the guaranteed claim) and the obligation specified in the guarantee; the guarantee shall cover all cases of nonfeasance of this obligation;

13. 'capital distribution' shall be provision of cash or other property of the bank to its shareholders except for providing new shares as a result of capital increase through transformation of profits into capital;

14. 'free delivery' shall be a transaction for which it has been agreed that the delivery versus payment principle shall not be observed;

15. 'matched position' shall be the smaller of the short and long positions in a given maturity band and the unmatched position shall be the difference between the two of them;

16. 'hedging' shall be a way of reducing the risk through making transactions in a specific manner so that the risk entailed by a transaction concluded in advance or available item is thus avoided or reduced to a minimum against the payment of the hedging price agreed.

§ 2. Functions of the Bulgarian National Bank under this Ordinance shall be performed by the Deputy Governor heading the Banking Supervision Department or by officials authorized by him.

### **Transitional and Final Provisions**

§ 3. This Ordinance is issued on the grounds of Article 23 in relation to § 19 of the Transitional and Final Provisions of the Law on Banks, and is adopted by Resolution No. 161 of the Governing Council of the Bulgarian National Bank dated 23 December 2004.

§ 4. This Ordinance shall come into force on 1 July 2005 and shall repeal Ordinance No. 8 on the capital adequacy of banks (published in the Darjaven Vestnik, issue 62 of 5 August 1997; corrected, issue 92 of 1997; amended, issue 41 of 2000; issue 11 of 2001, issue 79 of 2002, issue 44 of 2004) and Ordinance No. 4 on foreign currency positions of banks (published in the Darjaven Vestnik, issue 4 of 1998; amended, issue 5 of 1999; amended, issue 1 of 2001; amended, issue 9 of 2001, issue 1 of 2002).

§ 5. The Deputy Governor heading the Banking Supervision Department shall give instructions on the enactment of this Ordinance.

Appendix 1  
to Article 9, paragraph 5, item 3 (d);  
Article 13, paragraph 1, item 3;  
Article 14, paragraph 1, items 3 and 4  
(amended; Darjaven Vestnik, issue 55 of 2005)

### **List of Countries**

The European Community and the European Community member states  
Australia  
Canada  
Iceland  
Japan  
Korea  
Mexico  
New Zealand  
Norway  
Switzerland  
Turkey  
The United States of America

*Note:* Claims on countries from the above list shall not be reported as assets with a risk weighting factor zero provided the latest rating (as of the reporting date) of the respective country assigned by an internationally recognized credit agency is lower than BBB- by Standard & Poor's or Fitch, or Baa3 by Moody's. In these cases the risk factor amounts to 100 per cent.

Appendix 2  
to Article 14, paragraph 1, items 5 and 6

**List of International Institutions**

African Development Bank  
Asian Development Bank  
Caribbean Development Bank  
Council of Europe Resettlement Fund  
European Bank for Reconstruction and Development (EBRD)  
European Investment Bank (EIB)  
European Investment Fund  
Inter-American Development Bank  
Inter-American Investment Corporation  
International Bank for Reconstruction and Development (IBRD)  
International Finance Corporation  
Multilateral Investment Guarantee Agency  
Nordic Investment Bank

Appendix 3  
to Article 23, paragraph 1

### The Mark-to-market Method

1. The bank shall apply the mark-to-market method in order to determine the credit risk equivalent with a view to establishing the risk component of over-the-counter derivative financial instruments for counterparty risk.

2. The credit risk equivalent shall be the sum of the replacement value and the potential credit exposure.

3. The replacement value shall be determined by comparing the contracts' market value and their fixed contractual price. If this market value is positive, the replacement value is equal to the market value. If this market value is zero or negative, the replacement value is zero. A positive market value can be defined as the income which the bank would lose in the event of nonperformance by the counterparty. The calculation of the market value is based on the present value at current prices (foreign exchange rates, income, share prices) as of the reporting date. Positive market values expressed in foreign currencies are translated into reporting currency units at the spot rate on the reporting date.

4. The potential credit exposure shall be determined by applying the respective percentage from the Table to the notional amount of the principal.

Residual term	Interest rate contracts	Currency and gold contracts	Equity contracts	Precious metals (other than gold) contracts	Other commodity contracts
1	2	3	4	5	6
One year or less	0 %	1.0 %	6.0 %	7.0 %	10.0 %
From 1 to 5 years	0.5 %	5.0 %	8.0 %	7.0 %	12.0 %
Over 5 years	1.5 %	7.5 %	10.0 %	8.0 %	15.0 %

Notes:

1. In the case of contracts in which the principal is exchanged more than once, the percentages shall be multiplied by the number of exchanges still remaining under the contract.

2. In the case of contracts which stipulate that open positions shall be closed on specified payment dates and the contract terms shall be adjusted on the assumption that the market value on those dates is zero, the residual term shall be taken as the period up to the next payment date. The minimum of 0.5 per cent is used for interest rate contracts with total residual term of over one year which satisfy these terms.

3. Contracts which fall into more than one column of the table shall be slotted in the column with most conservative treatment.

4. Contracts with underlying values not mentioned in the table shall be listed under the Other commodity contracts column (6).

### **List of Derivative Instruments**

1. Interest rate agreements:
  - a) interest rate swaps in one currency;
  - b) basis swaps;
  - c) forward agreements;
  - d) interest rate futures;
  - e) purchased interest rate options;
  - f) other contracts of similar nature.
2. Foreign currency contracts and gold contracts:
  - a) cross-currency interest rate swaps;
  - b) forward contracts in foreign currency;
  - c) foreign exchange futures;
  - d) purchased foreign exchange options;
  - e) other contracts of similar nature;
  - e) gold contracts similar to those in subitems a) to e).
3. Contracts similar to those in item 1, subitems a) to e), and item 2, subitems a) to d), concerning other positions or indices related to:
  - a) shares;
  - b) precious metals with the exception of gold;
  - c) commodities other than precious metals;
  - d) other contracts of similar nature.

## **Amendments**

### **to Ordinance No. 8 of 2004 on the Capital Adequacy of Banks**

(Published in the Darjaven Vestnik, issue 55 of 5 July 2005)

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#### **Final Provision**

§ 12. These Amendments are approved by Resolution No. 69 of the Governing Council of the BNB dated 23 June 2005 and shall come into force on 1 July 2005.

## **Amendments**

### **to Ordinance No. 8 of 2004 on the Capital Adequacy of Banks**

(Published in the Darjaven Vestnik, issue 19 of 2 March 2006)

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#### **Final Provision**

§ 2. These Amendments are adopted by Resolution No. 25 of 24 February 2006 of the Governing Council of the Bulgarian National Bank and come into force on 1 April 2006.