

Pursuant to Article 62, paragraph 2, Article 63, Article 66, paragraph 2 and Article 68, paragraph 3 of the Banking Law (official gazette *Narodne novine*, No. 84/2002) and Articles 25 and 39, paragraph 2 under i) of the Law on the Croatian National Bank (official gazette *Narodne novine*, No. 36/2001) the Governor of the Croatian National Bank is hereby enacting the following

## **DECISION ON THE CAPITAL ADEQUACY OF BANKS**

### **1 GENERAL PROVISIONS**

#### **1.1 Capital adequacy ratio**

This Decision shall lay down the methods for calculating capital adequacy ratio and all of its component parts.

Capital adequacy ratio shall be the ratio between regulatory capital (as defined in chapter 2 of this Decision) and credit risk-weighted assets, calculated in accordance with chapter 4 of this Decision, increased by the overall foreign exchange position exposure to currency risk (calculated in accordance with chapter 5 or chapter 8 of this Decision), the capital requirement for position risks (calculated in accordance with chapter 6 or chapter 8 of this Decision) multiplied by 10, the capital requirement for settlement/counterparty risk (calculated in accordance with chapter 7) multiplied by 10 and the capital requirement for exceeding the permissible exposure limits (calculated in accordance with chapter 9 of this Decision) multiplied by 10.

A bank shall maintain its capital adequacy ratio at the level of at least 10%.

No component of regulatory capital may be used simultaneously to meet different capital requirements calculated in accordance with this Decision.

A bank shall calculate its capital adequacy ratio in accordance with this Decision. The banks that meet the criteria defined in the decision governing the supervision of banks on a consolidated basis shall also calculate the capital adequacy ratio on a consolidated basis using the method prescribed in chapter 10 of this Decision.

#### **1.2 Overall capital requirements**

A bank shall calculate its overall capital requirements as the sum of:

- a) capital requirements calculated in accordance with items 6.4, 6.5, and 6.7, and chapters 7 and 9 or chapter 8 (where appropriate) of this Decision for the trading book items;
- b) capital requirements calculated in accordance with chapters 4 and 5, item 6.6 or chapter 8 (where appropriate) of this Decision for all items;
- c) any additional capital requirements as may be prescribed by the CNB for similar risks.

The banks which exceed the minimum scope of trading book activities, as defined in item 3.2 of this Decision, shall calculate their capital requirements for credit risk in accordance with chapter 4 of this Decision by excluding debt and equity securities held in the trading book and all positions in commodities, but including the credit counterparty risk on all over-the-counter derivatives regardless of whether they are held in the trading book or not.

The banks which do not exceed the minimum scope of activities in the trading book, as defined in item 3.2 of this Decision, shall calculate their capital requirements for credit risk in accordance with chapter 4 of this Decision by including debt and equity securities held in the trading book and all positions in commodities, and the credit counterparty risk on all over-the-counter derivatives regardless of whether they are held in the trading book or not.

1.3 A bank shall adopt its written internal policies defining in detail the methodology for systematic implementation of this Decision.

Such written policies shall establish, as a minimum, the criteria governing the allocation of financial instruments in the trading book, the methods used to calculate a bank's exposure to individual types of risks, and internal models to be used for calculating the capital requirements for position and/or currency risk.

Banks shall adopt and submit to the Croatian National Bank the written policies referred to in paragraphs 1 and 2 of this item before the beginning of application of this Decision.

## 2 METHOD FOR CALCULATING REGULATORY CAPITAL

Regulatory capital of a bank shall be the sum of core capital, supplementary capital I and supplementary capital II (subject to limitations referred to in item 2.3 of this Decision) reduced by deduction items defined in item 2.4 of this Decision.

Core capital and supplementary capital I and II shall not be subject to any conditions or limitations that are inconsistent with the principles of safe and sound banking practices.

### 2.1 Component parts and the method for calculating core capital

2.1.1 Core capital, i.e. its component parts that are included in the regulatory capital calculations, shall meet the following criteria:

- a) it shall be unconditionally non-redeemable;
- b) it shall be made fully available during the bank's operation to cover the bank's losses;
- c) in the case of bankruptcy or liquidation of a bank, it shall be made fully and without limitations available for the settlement of the bank's losses after obligations towards all other bank creditors have been fulfilled.

Core capital shall consist of the items defined in item 2.1.2 of this Decision reduced by the deduction items defined in item 2.1.3 of this Decision.

2.1.2 Component parts of core capital shall comprise the following items:

1. paid-in capital arising from the sale of own shares except cumulative preference shares;
2. all types of reserves of a bank made from after-tax profit;
3. retained profit from previous years unburdened by any future obligations and confirmed at the general meeting of a bank and reported in the balance sheet;
4. current year profit when capital is calculated by a bank on the basis of interim reports during the year or at the end of the year; this type of profit may be included in core capital only if the general meeting of a bank decides that profit is to be allocated into reserves, retained profit and bank capital and if it has been approved by the Croatian National Bank;
5. capital gains made from trading in the bank's own shares; and
6. reserves for own shares (Article 233 of the Company Law) as well as shares considered own (Articles 237 and 238 of the Company Law).

2.1.3 Deduction items from core capital shall be as follows:

7. losses from previous years;
8. current year losses;
9. capital loss made from trading in the bank's own shares;
10. intangible assets such as goodwill, licenses, patents and trademarks;
11. acquired own shares, except cumulative preference shares (Article 233 of the Company Law) as well as shares considered own (Articles 237 and 238 of the Company Law);
12. outstanding balances on loans extended by the bank, either directly or indirectly, for the purchase of the bank's shares, except cumulative preference shares, or the amount of guarantees issued for such loans. Other legal arrangements that, as regards their economic purpose, are equal to loans shall also be considered loans.

2.2 Component parts and the method for calculating supplementary capital I and supplementary capital II

2.2.1 Supplementary capital I shall be calculated as the sum of the items defined in item 2.2.1.1 reduced by the deduction items defined in item 2.2.1.2 of this Decision.

2.2.1.1 Component parts of supplementary capital I shall be as follows:

1. paid-in capital arising from the sale of the bank's cumulative preference shares;
2. specific reserves for unidentified losses;
3. funds generated by means of hybrid instruments in accordance with item 2.2.1.3 of this Decision;
4. funds generated by means of subordinated instruments in accordance with item 2.2.1.4 of this Decision.

2.2.1.2 Deduction items from supplementary capital I shall be as follows:

5. acquired own cumulative preference shares (Article 233 of the Company Law), as well as shares of the same type which are considered own (Articles 237 and 238 of the Company Law);
6. the amount of specific reserves for unidentified losses which exceeds 1.25% of total credit risk-weighted assets (calculated in accordance with chapter 4 of this Decision);
7. the amount of subordinated instruments referred to in item 2.2.1.4 of this Decision which exceeds 50% of core capital;
8. claims and contingent liabilities secured by hybrid or subordinated bank instruments up to the amount these instruments are included in supplementary capital I; and
9. outstanding balances on loans extended by the bank, either directly or indirectly, for the purchase of the bank's cumulative preference shares, or the amount of guarantees issued for such loans. Other legal arrangements that, as regards their economic purpose, are equal to loans shall also be considered loans.

2.2.1.3 Hybrid instruments that are included in supplementary capital shall be financial instruments that possess certain characteristics of both bank equity and debt. Irrespective of their form or denomination, such instruments are designed for raising funds and they shall meet the following criteria:

1. they shall be unsecured (they shall not be additionally secured by bank's own guarantees, mortgages or in any other way), they shall be fully paid-in and in the case of bankruptcy or liquidation of the bank they shall be subordinated to other obligations of the bank (they shall be redeemed only after claims of all other creditors have been settled);
2. they shall be available to cover operating losses, as well as in the case of bankruptcy or liquidation;
3. they shall not be redeemed or repurchased by the bank prior to maturity except in the case when they are converted into the bank's shares, excluding cumulative preference shares of the bank;
4. their maturity shall be determined in advance and it shall exceed five years, counting from the day of payment (in the case of installment repayment, the five year period shall refer to the maturity of the first installment);
5. if the bank's capital adequacy ratio falls below the legally prescribed amount (or another ratio prescribed by the Croatian National Bank), but remains over 70% of that amount, the bank shall withhold the payment of interest, dividends and other benefits related to such instruments;
6. the bank shall convert such instruments into shares, which are, in accordance with this Decision, included in the bank's core capital in line with the previously set conditions, if the bank's capital adequacy falls below 3/4 of the legally prescribed capital adequacy ratio (or another ratio prescribed by the Croatian National Bank) and if shareholders fail to make additional share payments within 90 days after it is established that capital adequacy has fallen below 3/4 of the legally prescribed amount.

The legal document which regulates the relationship between the owner of a hybrid instrument and the bank shall contain all the above mentioned provisions and a note explaining that the instrument shall not be considered a deposit and that it is not

secured by the State Agency for Deposit Insurance and Bank Rehabilitation. The name of the instrument and the legal document shall not contain the word “savings” or any derivative of that word. Provisions of this item, which are contained in the legal document, may not be changed subsequently.

2.2.1.4 Subordinated instruments included in supplementary capital I shall be financial instruments which, irrespective of their form or denomination, are designed for raising funds. These instruments shall meet the following criteria:

1. they shall be unsecured (they shall not be additionally secured by bank’s own guarantees, mortgages or in any other way), they shall be fully paid-in, and in the case of bankruptcy or liquidation of the bank they shall be subordinated to other obligations of the bank (they shall be redeemed only after claims of all other creditors have been settled);
2. they shall be available to cover losses only in the case of bankruptcy or liquidation of the bank and they shall not be available to cover the bank’s operating losses;
3. they shall not be redeemed or repurchased by the bank prior to maturity except in the case when they are converted into the bank’s shares, excluding cumulative preference shares of the bank;
4. their maturity shall be determined in advance and it shall exceed five years, counting from the day of payment (in the case of installment repayment, the five year period shall refer to the maturity of the first installment).

The legal document which defines the relationship between an investor in the bank capital and the bank shall contain all the above mentioned provisions and a note explaining that the instrument shall not be considered a deposit and that it is not secured by the State Agency for Deposit Insurance and Bank Rehabilitation. The name of the instrument and the legal document shall not contain the word “savings” or any derivative of that word. Provisions of this item, which are contained in the legal document, may not be changed subsequently.

In the last five years before their maturity, subordinated instruments shall qualify for inclusion in regulatory capital if calculated on the basis of a 20% cumulative annual value reduction. In the last year before their maturity, hybrid and subordinated instruments shall not be included in the supplementary capital that is included in the regulatory capital.

2.2.2 Supplementary capital II shall consist of subordinated instruments defined as financial instruments, irrespective of their form or denomination, which are issued for raising funds. They have to be readily available in order to be eligible for inclusion in a bank's core capital and as such absorb losses in the case that the bank’s capital adequacy falls below 3/4 of the legally prescribed ratio (or another ratio prescribed by the Croatian National Bank).

These instruments shall meet the following criteria:

1. they shall be unsecured (they shall not be additionally secured by bank’s own guarantees, mortgages or in any other way), they shall be fully paid-in and in the case of bankruptcy or liquidation of the bank they shall be subordinated to

- other obligations of the bank (they shall be redeemed only after claims of all other creditors have been settled);
2. they shall have an original maturity of at least two years and they shall not be repayable before the agreed repayment date; and
  3. they shall be subject to a clause which stipulates that neither the interest nor the principal on such instruments may be repaid (even at maturity) if such repayment would mean that the capital adequacy ratio of the bank in question would fall or remain below the legally prescribed minimum.

The legal document which regulates the relationship between the owner of a subordinated instrument and the bank shall contain all the above mentioned provisions and a note explaining that the instrument shall not be considered a deposit and that it is not secured by the State Agency for Deposit Insurance and Bank Rehabilitation. The name of the instrument and the legal document shall not contain the word “savings” or any derivative of that word. Provisions of this item, which are contained in the legal document, may not be changed subsequently.

The bank shall notify the CNB immediately of any repayment on such subordinated instruments that might cause a fall in its capital adequacy ratio to below 120% of the legally prescribed ratio (or another ratio prescribed by the Croatian National Bank).

### 2.3 Limitations with respect to regulatory capital

Core capital shall amount to at least 50% of the total regulatory capital which is, in accordance with this Decision, available to cover exposure to credit risk calculated in accordance with chapter 4 of this Decision, exposure to currency risk calculated in accordance with chapter 5 of this Decision, exposures to position risks calculated in accordance with chapter 6 (for the banks which have to calculate them in accordance with item 3.2 of this Decision), exposures to settlement and counterparty risk calculated in accordance with chapter 7 of this Decision (for the banks that have to calculate them in accordance with item 3.2 of this Decision), the capital requirement for exceeding the permissible exposure limits (in accordance with chapter 9) or the capital requirement calculated by using the bank's own internal model (in accordance with chapter 8).

The banks that have to calculate exposure to position risks (chapter 6 or chapter 8), settlement and counterparty risk (chapter 7), and the banks that exceed the permissible exposures limits (chapter 9) and which have an open foreign exchange position (chapter 5) in accordance with item 3.2 of this Decision shall be allowed to use supplementary capital II to cover these risks, but only up to the amount of 250% of the core capital required to cover the same risks and not used to cover any other risks defined in this Decision. This means that at least 28.5% of the capital requirement for market risks (defined in accordance with chapters 5, 6 or 8 and chapters 7 and 9 of this Decision) shall be covered by the core capital that is not used to cover other risks.

Notwithstanding the fact that the CNB shall not recognize any surplus in a bank's supplementary capital I and II as regulatory capital, a bank may, for the purpose of safe and sound banking practices, provide for supplementary capital in excess of the minimum defined under this Decision.

## 2.4 Deduction items from regulatory capital

Gross regulatory capital of a bank shall be reduced by the following items:

1. Direct and indirect investments in other banks and financial institutions amounting to over 10% of such banks' and financial institutions' capital;

Where shares in another bank or financial institution are held temporarily for the purpose of a financial assistance operation designed to reorganize or save that institution, the bank may apply to the Croatian National Bank for an approval not to deduct such shares from its regulatory capital.

2. Direct and indirect investments in other banks and financial institutions of up to 10% of their capital which exceed 10% of the regulatory capital of the bank whose regulatory capital is being calculated, calculated before the deduction for items referred to in sub-item (1) of this item.
3. Claims on and contingent liabilities towards legal persons under direct or indirect control of the bank, provided that these claims or contingent liabilities are established under terms which are more favorable than the terms usually offered by the bank, or more favorable than the terms obtained in the financial markets for comparable operations, or if such terms are not in line with the principles of safe and sound banking practices.
4. Claims on and contingent liabilities towards persons referred to in Article 78, paragraph 1 of the Banking Law, irrespective of whether funds have been extended to them as sole traders or natural persons, provided that such claims or contingent liabilities are established under terms which are more favorable than the terms usually offered by the bank, or more favorable than the terms obtained in the financial markets for comparable operations, or if such terms are not in line with the principles of safe and sound banking practices.
5. Claims and contingent liabilities secured by other banks' shares which are not quoted on official stock exchanges.

## 3 TRADING BOOK ITEMS

In accordance with this Decision, a bank shall determine which items are to be allocated to the trading book. The bank shall have a written policy establishing the basic criteria for allocating financial instruments and other items into the trading book and shall ensure a consistent implementation of that policy.

All financial instruments in the trading book shall be marked to market on a daily basis.

### 3.1 Definition of the trading book

In accordance with this Decision, the trading book shall consist of:

1. financial instruments, commodities and commodity derivatives which are held for resale and/or which are purchased/taken on by the bank with the intention of benefiting from differences between their buying and selling prices, or from other price or interest-rate variations, or positions taken in order to hedge other elements of thus defined trading book items;
2. the exposures due to the unsettled transactions, free deliveries and over-the-counter derivative instruments (as defined in sub-items 1, 2 and 3 of item 4.4 of this Decision);
3. the exposures due to repurchase agreements and securities and commodities lending agreements which are based on securities or commodities included in the trading book;
4. the exposures due to reverse repurchase agreements and securities and commodities borrowing agreements which meet the criteria set in this Decision, and for which the bank has obtained a prior approval from the CNB to include them in the trading book;
5. the exposures in the form of fees, commission, interest, dividends and margins on exchange-traded derivatives which are directly related to the items included in the trading book;
6. the financial instruments due to the underwriting arrangements in accordance with item 6.3. of this Decision.

3.1.1 In accordance with this Decision, a "repurchase agreement" and "reverse repurchase agreement" shall mean any agreement that meets the following criteria:

1. under such an agreement a bank or its counterparty transfers securities or commodities or guaranteed rights relating to title to securities or commodities where that guarantee is issued by a recognized exchange which holds the rights to such securities or commodities;
2. the agreement does not allow a bank to transfer or pledge a particular security or commodity to more than one counterparty at one time, subject to a commitment to repurchase them (or substitute them by securities or commodities of the same description) at a specified price at a future date specified, or to be specified, by the transferor.

3.1.2 A repurchase agreement for a bank shall imply an agreement that meets the above listed criteria under which the bank is selling the securities or commodities. A reverse repurchase agreement for a bank shall imply an agreement that meets the above listed criteria under which the bank is buying the securities or commodities.

3.1.3 In accordance with this Decision, a securities or commodities lending agreement and securities or commodities borrowing agreement shall imply any agreement under which a bank or its counterparty transfers securities or commodities against appropriate collateral subject to a commitment that the borrower will return equivalent securities or commodities at some future date or when requested to do so by the transferor.

3.1.4 Subject to a prior approval of the CNB, a bank may include in the trading book exposures due to reverse repurchase agreements and securities and commodities borrowing agreements which meet the criteria listed under (a), (b), (c) and (e) or (d) and (e) as follows:

- (a) the exposures shall be marked to market daily;
- (b) the collateral shall be adjusted in order to take account of material changes in the value of the securities or commodities involved in the agreement in question;
- (c) the agreement shall provide for the claims of the bank to be automatically and immediately offset against the claims of its counterparty in the event of the latter's defaulting;
- (d) the agreement in question shall be an inter-professional one;
- (e) such agreements shall be confined to their accepted and appropriate use and artificial transactions, especially those of a short-term nature, shall be excluded.

The bank must immediately notify the CNB of any case in which their counterparties in repurchase, reverse repurchase agreements, and securities and commodities lending agreements default on their obligations.

### 3.2 Minimum scope of trading book activities

3.2.1 Banks shall calculate the capital requirements for the financial instruments held in their trading books in accordance with chapter 4 of this Decision rather than in accordance with chapters 6 and 7 or chapter 8 provided that:

- (1) the value of trading book items does not normally exceed 5% of their total business;
- (2) the value of trading book items does not normally exceed 100 million kuna; or
- (3) the value of trading book items never exceeds 6% of their total business and their total trading book positions never exceed 140 million kuna.

3.2.2 In order to calculate the proportion that trading book business bears to total business, a bank shall refer to the size of the combined on- and off-balance sheet items. For this purpose, debt and equity instruments shall be valued at their nominal or market values, and derivatives according to the nominal or market values of the instruments underlying them. Long positions and short positions shall be summed regardless of their signs.

3.2.3 The Croatian National Bank may, regardless of the criteria referred to in item 3.2.1, if it concludes that trading business is not significant in comparison to total business of a particular bank, exempt that bank from the calculation of the capital requirement in accordance with chapters 6 and 7 or chapter 8.

The Croatian National Bank may, regardless of the criteria referred to in item 3.2.1, if it concludes that trading business is significant in comparison to total business of a particular bank, require the bank to calculate the capital requirement in accordance with chapters 6 and 7 or chapter 8.

## 4 CALCULATION OF TOTAL CREDIT RISK-WEIGHTED ASSETS OF A BANK

### 4.1 Definition

Total credit risk-weighted assets shall be the sum total of on-balance sheet items calculated in accordance with item 4.2 of this Decision, risky off-balance sheet items calculated in accordance with item 4.3 of this Decision, derivative off-balance sheet

items calculated in accordance with item 4.4 of this Decision, excluding the items referred to in item 4.5 of this Decision.

#### 4.2 Balance sheet assets included in credit risk-weighted assets

Balance sheet assets which are included in credit risk-weighted assets shall be the sum of net balance sheet assets (nominal amounts of individual items after value impairments as provided by the International Accounting Standard 39) classified into the following categories and multiplied by the following risk-weights:

A 0% risk-weight shall be applied to:

1. banknotes and coins (domestic and foreign) and precious metals;
2. claims on the CNB and the central banks of the OECD member countries and claims secured by unconditional guarantees or securities of the Croatian National Bank or the central banks of the OECD member countries;
3. claims on the Government of the Republic of Croatia and claims secured by unconditional guarantees or other guarantees or securities of the Government of the Republic of Croatia;
4. claims on the governments of the OECD member countries and claims secured by unconditional guarantees or securities of the governments of the OECD member countries;
5. claims covered by deposits up to the deposit amount.

A 20% risk-weight shall be applied to:

1. claims secured by conditional guarantees of the Government of the Republic of Croatia, the Croatian National Bank, the governments of the OECD member countries or the central banks of the OECD member countries;
2. claims on the European Investment Bank (EIB) and multilateral development banks (listed in the Instruction) and claims carrying explicit guarantees of the EIB or multilateral development banks;
3. claims on foreign banks with adequate creditworthiness which are not included in the regulatory capital of these banks, and claims secured by guarantees of foreign banks with adequate creditworthiness;
4. claims on domestic banks, and claims secured by guarantees or sureties of those banks;
5. claims secured by collateral in the form of securities issued by the EIB or multilateral development banks;
6. claims on regional governments or local authorities of the OECD member countries, or claims secured by guarantees of regional governments or local authorities of the OECD member countries;
7. claims on the Croatian counties or the City of Zagreb, or claims secured by guarantees of the Croatian counties or the City of Zagreb.

A detailed definition of creditworthiness that meets the criteria for the 20% risk-weight is given in the Instruction for the implementation of this Decision.

A 50% risk-weight shall be applied to:

1. loans fully and completely secured by mortgages on residential property that is or will be occupied or let by the borrower.

A 100% risk-weight shall be applied to:

1. claims not covered by bank deposits or adequate pledged property;
2. tangible assets;
3. investments into other banks' securities which are included in their regulatory capital;
4. prepayments and accrued income where a bank is unable to determine the counterparty;
5. all other balance sheet assets.

#### 4.3 Treatment of risky off-balance sheet items

Risky off-balance sheet items shall be included in total risk-weighted assets after their impairment as provided by a decision governing the classification of bank placements and contingent liabilities. The amount thus obtained shall be multiplied by an adequate credit conversion factor. The converted amount shall be further multiplied by the risk-weights applied to balance sheet claims referred to in item 4.2 of this Decision.

The credit conversion factors shall include:

A 0% credit conversion factor applied to:

1. guarantees and other similar instruments secured by guarantees of the Government of the Republic of Croatia, multilateral development banks, the EIB or other institutions if so prescribed by the CNB;
2. letters of credit, guarantees and other similar instruments secured by deposits with the issuing bank;
3. undrawn credit facilities and similar agreements (e.g. agreements to lend, purchase securities, provide guarantees, etc.) which may be cancelled unconditionally at any time without notice.

A 20% credit conversion factor applied to:

1. undrawn credit facilities and similar items (agreements to lend, purchase securities, provide guarantees, etc.) with an original maturity of up to and including one year;
2. documentary credits in which underlying shipment acts as collateral and other self-liquidating transactions.

A 50% credit conversion factor applied to:

1. documentary letters of credit which are issued and confirmed and are not covered by the 0% and 20% credit conversion factors;

2. warranties and indemnities (including tender, performance, customs and tax bonds) and guarantees not having the character of credit substitutes;
3. asset sale and repurchase agreements defined in the Instruction;
4. irrevocable standby letters of credit not having the character of credit substitutes;
5. undrawn credit facilities and similar items (e.g. agreements to lend, purchase securities, provide guarantees, etc.) with an original maturity of more than one year.

A 100% credit conversion factor applied to:

1. payment guarantees, irrevocable standby letters of credit and similar instruments having the character of direct credit substitutes;
2. endorsements on bills not bearing the name of another bank;
3. transactions with recourse;
4. assets purchased under outright forward purchase agreements;
5. forward deposits;
6. the unpaid portion of partly-paid shares and securities;
7. all other risky off-balance sheet items.

#### 4.4 Treatment of other risky off-balance sheet items

Credit risk-weighted assets shall also include the following off-balance sheet items:

1. interest-rate contracts: single-currency interest-rate swaps, basis-swaps, forward-rate agreements, interest-rate futures, interest-rate options purchased, and other contracts of a similar nature;
2. foreign-exchange contracts and contracts concerning gold: cross-currency interest-rate swaps, forward foreign-exchange contracts, currency futures, currency options purchased, other contracts of a similar nature and contracts of a similar nature concerning gold;
3. contracts of a nature similar to those listed in items 1 and 2 concerning other reference items or indices concerning equities, precious metals except gold, commodities other than precious metals, and other contracts of a similar nature;

regardless of whether or not they are included in the calculation of position risks in accordance with chapter 6.

Items referred to in sub-items 1, 2 and 3 of this item shall not be included in credit risk-weighted assets if:

- they are traded on recognized exchanges; or
- they are foreign-exchange forward or futures contracts (except contracts concerning gold) with an original maturity of less than 14 calendar days.

To measure the credit risks associated with the contracts listed in sub-items 1 and 2 of this item, banks may choose one of the methods set out below. To measure the credit

risks associated with the contracts listed in sub-item 3 of this item, banks may use only the "mark to market" approach (described in item 4.4.1.1 of this Decision).

The banks that have to calculate the capital requirement for position risks must use the "mark to market" approach (described in item 4.4.1.1 of this Decision).

4.4.1 Methods for calculating credit exposure for other risky off-balance sheet items:

4.4.1.1 The "mark to market" approach - the current replacement cost of all contracts with positive values shall be obtained by attaching current market values to contracts.

To obtain a figure for potential credit risk exposure of the stated contracts, the notional principal amounts shall be multiplied by the following percentages:

Residual maturity	Interest-rate contracts	Contracts concerning foreign-exchange rates and gold	Contracts concerning equities	Contracts concerning precious metals except gold	Contracts concerning commodities other than precious metals
One year or less	0%	1%	6%	7%	10%
Over one year and less than five years	0.5%	5%	8%	7%	12%
Over five years	1.5%	7.5%	10%	8%	15%

The sum of current replacement cost and potential credit risk exposure shall further be multiplied by the credit risk-weights allocated to the relevant counterparties in accordance with item 4.2 of this Decision.

4.4.1.2 The "original exposure" approach - the notional principal amount of each instrument shall be multiplied by the percentages given below:

Original maturity	Interest-rate contracts	Contracts concerning foreign-exchange rates and gold
One year or less	0.5%	2.0%
More than one year but not exceeding two years	1.0%	5.0%
Additional allowance for each additional year	1.0%	3.0%

The original exposure thus obtained shall be multiplied by the risk-weights allocated to the relevant counterparties in accordance with item 4.2 of this Decision.

4.4.2 Where such off-balance-sheet items are secured by guarantees, they shall be weighted as if they had been incurred on behalf of the guarantor rather than the counterparty. Where the potential exposure arising from such off-balance-sheet transactions is fully and completely secured (collateralized), weights of 0% or 20%

(in accordance with item 4.2 of this Decision) shall apply depending on the collateral in question.

4.4.3 Banks may calculate the capital requirement for such off-balance-sheet items on the basis of the net amount rather than the gross amount provided that there are legally binding contracts that ensure that the credit risk is confined to the net amount. Types of contracts for novation and other netting agreements, conditions for their recognition and the effects of their recognition on the calculation of the capital requirement pursuant to this Decision shall be further defined in the Instruction for the implementation of this Decision.

4.4.4 If a bank decides to use the "mark to market" approach it shall use it on a consistent basis.

4.5 Credit risk-weighted assets shall not include the following items:

1. intangible assets such as goodwill, licenses, patents and trademarks;
2. outstanding balances on loans extended by the bank for the purchase of the bank's shares, as well as the amount of guarantees for such loans;
3. claims and contingent liabilities secured by the bank's hybrid or subordinated instruments to the amount these instruments are included in supplementary capital;
4. bank's investments into shares and other financial instruments which constitute a deduction item of the bank's regulatory capital;
5. claims on and contingent liabilities towards legal persons under direct or indirect control of the bank, provided that these claims or contingent liabilities are established under more favorable terms than the terms usually offered by the bank, or more favorable than the terms obtained in the financial markets for comparable operations, or if such terms are not in line with the principles of safe and sound banking practices;
6. claims on and contingent liabilities towards persons referred to in Article 78, paragraph 1 of the Banking Law, irrespective of whether funds have been extended to them as sole traders or natural persons, provided that these claims or contingent liabilities are established under more favorable terms than the terms usually offered by the bank, or more favorable than the terms obtained in the financial markets for comparable operations, or if such terms are not in line with the principles of safe and sound banking practices;
7. claims and contingent liabilities secured by other banks' shares which are not quoted on recognized stock exchanges.

4.6 The capital requirement for credit risk-weighted assets shall be calculated by multiplying total credit risk-weighted assets, calculated in accordance with this chapter, by 10%.

## 5 CALCULATION OF A BANK'S EXPOSURE TO CURRENCY RISK

### 5.1 Definition

Currency risk is the risk to which a bank is exposed during the period when it has an open foreign exchange position (or an open position in gold) which may result in losses due to cross currency changes in foreign exchange rates, changes in the value of the kuna against other foreign currencies and changes in the value of gold.

### 5.2 Open foreign exchange position

An open foreign exchange position in each currency (and in gold) shall consist of the following elements:

- the net spot position, defined as the difference between the foreign exchange assets and foreign exchange liabilities in that particular currency, including accrued interest, and spot transactions which are concluded but not yet accounted for;
- the net forward position, defined as the difference between all amounts to be received and all amounts to be paid under forward foreign exchange (or forward gold) contracts, including currency (or gold) futures, and the principal on currency swaps not included in the spot position;
- irrevocable guarantees, uncovered letters of credits and similar instruments that are certain to be called and likely to be irrecoverable;
- position in foreign currency options (or gold options);
- the market value of other (i.e. non-foreign currency and non-gold) options, whose underlying is expressed in foreign currency.

5.3 An open foreign exchange position in each currency can be either short or long. A bank has a short foreign exchange position in a particular currency (or gold) when the sum of the previously defined elements in that currency (or gold) is negative. A bank has a long foreign exchange position in a particular currency (or gold) when the sum of the previously defined elements in that particular currency is positive.

5.4 In terms of this Decision, foreign exchange assets and foreign exchange liabilities shall include all foreign exchange assets and liabilities, including assets and liabilities denominated in kuna whose value in kuna is calculated on the basis of the exchange rate of the kuna against a foreign currency (hereinafter: assets and liabilities with a currency clause).

Assets and liabilities in kuna whose value is calculated on the basis of the exchange rate of the kuna against a particular foreign currency only in the event of kuna depreciation with respect to that foreign currency shall be considered assets and liabilities with embedded call options on that specific currency, and shall be treated as such.

The net open position in a particular currency shall be calculated in that particular currency and translated into kuna by using the midpoint exchange rate of the Croatian National Bank valid on the reporting date.

5.5 The overall short foreign exchange position of a bank shall be the sum of all short foreign exchange positions of the bank in individual currencies. The overall long foreign exchange position of a bank is the sum of all long foreign exchange positions of the bank in individual currencies. The overall open foreign exchange position shall represent a higher of these two figures. The absolute net open position in gold shall be added to this overall open foreign exchange position.

The capital requirement for foreign exchange position shall be calculated by multiplying the overall open position (including gold position) by 10%.

The banks that have internal models that have been approved by the CNB shall calculate the capital requirement for currency risk in accordance with chapter 8 of this Decision.

## 6 CALCULATION OF A BANK'S EXPOSURE TO POSITION RISKS

### 6.1 Position risks

Position risks based on interest rate risk and equity risk shall be divided into specific and general risk.

Specific risk shall refer to the risk of loss resulting from a price change in an individual security due to factors related to its issuer.

General risk shall refer to the risk of loss resulting from a price change in the securities market, rather than a price change of a particular instrument.

Commodities risk arises from all on- and off-balance sheet items (not just the trading book items), and is not divided into specific and general risk.

### 6.2 Treatment of derivatives and other financial instruments

Derivatives are financial instruments whose value changes in response to a change in a specified interest rate, security price, commodity price, foreign exchange rate, index or similar variable (called "underlying").

In calculating the capital requirements for position risks, derivatives shall be treated as combinations of hypothetical long and short positions which are subject to the capital requirements calculation for specific and general risk.

6.2.1 Interest rate futures, forward-rate agreements (FRAs) and forward commitments to buy or sell debt instruments shall be treated as combinations of a long position (position in which a bank has fixed the interest it will receive at some point in the future) and a short position (position in which a bank has fixed the interest it will pay at some point in the future). Interest rate futures and FRAs shall be treated as combinations of long and short positions in zero coupon government bonds with respective maturity. Forward commitments to buy/sell the instruments in the future shall be treated as combinations of a long/short position in zero coupon government bond and a long/short position in the debt instrument underlying the contract in

question. In calculating the capital requirements for these instruments, these instruments shall be reported at the market value of the principal or notional amount of the underlying instrument.

6.2.2 Equity futures and forwards based on individual equities, equity portfolios or equity indices shall be treated as combinations of a long or short position in the equity in question and a long or short position in zero coupon government bonds. The position in a particular equity is reported at the market value of that particular equity. The position in zero coupon government bonds which results from a decomposition of equity derivatives shall be included in the calculation of interest rate risk in accordance with item 6.5 of this Decision.

6.2.3 Commodity futures and forwards and forward commitments to buy or sell commodities shall be treated as combinations of a long or short position in the particular commodity and a long or short position in zero coupon government bonds. They shall be reported at a notional amount in terms of the standard units of measurement and assigned maturity in accordance with the expiry date.

6.2.4 Foreign exchange forwards and futures shall be treated as long positions in zero coupon government bonds in the currency purchased and short positions in zero coupon government bonds in the currency sold. The positions in zero coupon government bonds which resulted from a decomposition of equity derivatives shall be included in the calculation of interest rate risk relative to the corresponding maturities.

6.2.5 Swaps shall be treated as two notional positions in government securities with relevant maturities:

- Interest rate swaps shall be treated as two notional positions in zero coupon government bonds with a floating or fixed interest rate and relevant maturities;
- Currency interest rate swaps shall be treated as a combination of a long position in zero coupon government bonds in a particular currency with a fixed or floating interest rate (depending on which refers to that particular currency) and a short position in zero coupon government bonds in a particular currency with a fixed or floating interest rate;
- Equity swaps shall be treated as a combination of a long position in an equity (portfolio of equities or equity indices) on which a bank receives an amount based on a price change in that equity (portfolio of equities or equity indices) and a short position in equity (portfolio of equities or equity indices) on which a bank pays an amount based on a price change in that particular equity (portfolio of equities or equity indices);
- Commodity swaps shall be treated as a combination of long positions in commodity on which a bank pays a fixed rate and receives a floating rate, and short positions in commodity on which a bank receives a fixed rate and pays a floating rate.

6.2.6 Positions in equity indices shall be subject to the calculation of specific and general risk in accordance with item 6.5 of this Decision. The positions in equity indices shall be broken down into positions in each of their constituent equities. After each index has been broken down into its constituent equities, these equities may be

offset against the positions in the same equities with a different sign. For the purpose of calculating capital requirements for position risks, equity-index forwards shall be broken down into long or short positions (depending on whether a bank bought them or sold them) in that equity index or its constituent equities and long or short positions in zero coupon government bonds.

The position in the exchange-traded equity indices which are broadly diversified may be treated as positions in that particular index (i.e. they are not broken down into the constituent equities), and as such are subject to capital requirements against general risk, but not against specific risk.

6.2.7 Positions in convertible securities shall be treated as positions in the underlying interest or equity instrument. Convertible debt securities shall be treated as positions in an equity instrument if:

- there is less than three months to the first date on which conversion may take place or there is less than one year until the next date if the first date has passed; and
- the market value of the debt security is less than 10% higher than the market value of the underlying equity; and
- a bank has covered with its regulatory capital any loss which the conversion may entail.

Other convertible debt securities, which do not meet the requirements listed in the previous item, may be treated as positions in debt securities or underlying equities.

6.2.8 Securities under approved repurchase agreements or securities lending agreements, which meet the requirements referred to in item 3.1 of this Decision, shall be treated by the transferor/lender as long positions in that particular security and short positions in government bonds with the maturity of the contract and coupon equal to the repurchase rate.

6.2.9 Options and option-like instruments (warrants, caps, floors) shall be treated as described in item 6.7 of this Decision.

#### 6.2.10 Netting

The excess of bank's long (short) positions over its short (long) positions in the same equity and debt securities shall be its net position in each of these different instruments. In calculating the net position, derivative instruments shall be treated, as described in this item, as positions in the underlying securities.

6.2.10.1 Netting of positions calculated for this purpose shall be allowed only if the issuer is the same, if securities bear the same coupon rate and maturity, they are denominated in the same currency and have the same bankruptcy treatment.

6.2.10.2 The banks which do not use internal models under chapter 8 of this Decision may, with a prior approval of the CNB, treat as fully offsetting any positions in derivative instruments (defined in items 6.2.1 to 6.2.6 and 6.2.9 of this Decision) which meet the following conditions at least:

- a) the positions are of the same value and are denominated in the same currency,
- b) the reference rate (for floating-rate positions) or coupon (for fixed-rate positions) is closely matched,
- c) the next interest-fixing date (for floating-rate positions) or residual maturity (for fixed-rate positions) correspond with the following limits:
  - less than one month hence: same day,
  - between one month and one year hence: within seven days,
  - over one year hence: within 30 days.

### 6.3 Underwriting

Pursuant to this Decision, underwriting shall be an arrangement under which a bank has made a commitment to an issuer to organize, prepare and carry out the issuance of securities, and consequently, to subscribe and pay for all the securities or only for those that remained unsubscribed for the purpose of their further sale to potential investors.

A bank is obliged to treat in the identical manner the arrangement under which it has made a commitment to become a sub-underwriter or a member of an underwriting or sub-underwriting syndicate, regardless of whether this is a new issue of securities or issued securities are being placed on a new market.

Capital requirements for positions arising from the underwriting arrangements shall be calculated by a bank by applying the methodologies described under items 6.4 and 6.5 of this Decision.

A bank may, with a prior approval of the CNB, use the following procedure in calculating its capital requirement for the underwriting of debt and equity instruments. Firstly, it shall calculate the net positions by deducting the underwriting positions which are subscribed or sub-underwritten by third parties on the basis of formal agreements from the amount the bank has unconditionally committed to accept at an agreed price; secondly, it shall reduce the obtained net positions by the following reduction factors:

Working day	Reduction factors
working day 0:	100%
working day 1:	90%
working days 2 to 3:	75%
working day 4:	50%
working day 5:	25%
after working day 5:	0%.

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

The capital requirement for positions based on underwriting agreements shall be calculated by a bank using the reduced underwriting positions under the methodologies described in items 6.4 and 6.5 of this Decision.

#### 6.4. Interest rate risk

A bank shall calculate its capital requirement against interest rate risk in accordance with this item only for debt instruments held in the trading book, but it shall be required to set up systems to monitor and control interest rate risk to which all of its operations are exposed.

Interest rate risk arising from positions in debt instruments shall be divided into general interest rate risk and specific interest rate risk. General interest rate risk is the risk of a price change in the instrument in question due to a change in the level of interest rates or stronger capital market movements unrelated to any specific attributes of the instrument in question. Specific interest rate risk is the risk of a price change in the instrument in question due to the factors related to its issuer (or in the case of a derivative - the issuer of the underlying instrument.)

6.4.1 A bank shall classify its net positions in each debt instrument (bond, money market instrument, component of derivative instruments in accordance with item 6.2 of this Decision, reduced underwriting position in accordance with item 6.3 of this Decision and any other positions sensitive to the changes in interest rates) according to the currency in which it is denominated and shall calculate the capital requirement for general and specific risk in each individual currency separately.

All net positions in debt securities shall be converted on a daily basis into kuna at the spot market exchange rate.

#### 6.4.2 Methodology for calculating specific interest rate risk

Banks shall assign their net positions in debt instruments to the appropriate categories in the table bellow on the basis of their residual maturities and shall then multiply them by the prescribed weights. The weighted positions (regardless of whether they are long or short) shall be summed in order to calculate the capital requirement against specific interest rate risk.

Risk-free items	Qualifying items			Other items
	Up to 6 months	Over 6 and up to 24 months	Over 24 months	
0.00%	0.32%	1.25%	2.00%	10.00%

Under this item, risk-free items shall be debt securities issued or fully secured by entities which carry a 0% credit risk weight in accordance with item 4.2 of this Decision. Qualifying items under this item shall be debt securities issued or fully

secured by entities which carry a 20% credit risk weight in accordance with item 4.2 of this Decision.

A bank shall not calculate specific interest rate risk for holdings of its own debt instruments.

#### 6.4.3 Methodology for calculating general interest rate risk

For the calculation of general interest rate risk a bank shall use a maturity-based approach or, with a prior approval of the CNB, a duration-based approach. Under both of these methods, the capital requirement for general interest rate risk shall be calculated as the sum of the following elements:

- a proportion of the matched positions in each time-band (not calculated under the duration-based approach),
- a proportion of the matched positions between different time-bands in the same zone,
- a proportion of the matched positions between different zones,
- residual unmatched positions.

6.4.3.1 Under the maturity-based approach, the bank shall allocate its net positions in debt instruments on the basis of residual maturity (or on the basis of the period remaining until the interest rate is next set in the case of floating-rate instruments) and a coupon using the following table:

Zone	Maturity band		Weight (in %)
	Coupon of 3% or more	Coupon of less than 3%	
One	0 ≤ 1 month	0 ≤ 1 month	0.10
	> 1 ≤ 3 months	> 1 ≤ 3 months	0.20
	> 3 ≤ 6 months	> 3 ≤ 6 months	0.40
	> 6 ≤ 12 months	> 6 ≤ 12 months	0.70
Two	> 1 ≤ 2 years	> 1.0 ≤ 1.9 years	1.25
	> 2 ≤ 3 years	> 1.9 ≤ 2.8 years	1.75
	> 3 ≤ 4 years	> 2.8 ≤ 3.6 years	2.25
Three	> 4 ≤ 5 years	> 3.6 ≤ 4.3 years	2.75
	> 5 ≤ 7 years	> 4.3 ≤ 5.7 years	3.25
	> 7 ≤ 10 years	> 5.7 ≤ 7.3 years	3.75
	> 10 ≤ 15 years	> 7.3 ≤ 9.3 years	4.50
	> 15 ≤ 20 years	> 9.3 ≤ 10.6 years	5.25
	> 20 years	> 10.6 ≤ 12.0 years	6.00
		> 12.0 ≤ 20.0 years > 20.0 years	8.00 12.50

The bank shall multiply each position by the weight for that maturity band. All weighted long positions in each maturity band shall be summed, and all weighted short positions in each maturity band shall be summed separately. The sum of the weighted long positions which is matched by the sum of the weighted short positions in a given maturity band shall be the matched weighted position in that maturity band. The residual amount shall be considered (long or short) unmatched weighted position for that maturity band. A bank shall calculate the total matched weighted position in all maturity bands as the sum of the matched weighted positions for each individual maturity band.

A bank shall then calculate the sum of all long unmatched weighted positions for each zone, and the sum of all short unmatched weighted positions for each zone. The sum of all long unmatched weighted positions which is matched by the sum of all short unmatched weighted positions for the same zone shall be the matched weighted position for that zone. The residual amount shall be considered (long or short) unmatched weighted position for that particular zone.

The amount of the unmatched weighted long/short position in zone one which is matched by the unmatched weighted long/short position in zone two shall be referred to as the matched weighted position between zones one and two.

The amount of residual unmatched weighted position in zone two which is matched by the unmatched weighted position in zone three shall be referred to as the matched weighted position between zones two and three.

The amount of residual unmatched weighted position in zone one which is matched by the unmatched weighted position in zone three shall be referred to as the matched weighted position between zones one and three.

The amount of residual unmatched weighted positions in all zones shall then be summed.

The capital requirement for interest rate risk under this method shall be calculated as the sum of:

- (a) 10% of the sum of the matched weighted positions in all maturity bands;
- (b) 40% of the matched weighted position in zone one;
- (c) 30% of the matched weighted position in zone two;
- (d) 30% of the matched weighted position in zone three;
- (e) 40% of the matched weighted position between zones one and two;
- (f) 40% of the matched weighted position between zones two and three;
- (g) 150% of the matched weighted position between zones one and three;
- (h) 100% of the residual unmatched weighted positions.

6.4.3.2 The duration-based approach may be used by the banks which obtain a prior approval from the CNB to use it in the calculation of the capital requirement for interest rate risk. These banks shall apply this approach consistently.

Under this method the bank shall:

- for fixed-rate debt instruments, take the market value of each instrument and thence calculate its yield to maturity (which is an implied discount rate for that particular instrument);
- for floating-rate debt instruments, take the market value of each instrument and thence calculate its yield to maturity on the assumption that the principal is due when the interest rate can next be changed.

The bank shall then calculate the modified duration of each debt instrument on the basis of the following formula:

$$D_{\text{mod}} = \frac{D}{(1+r)}$$

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

where:

$D_{\text{mod}}$  = modified duration

D = duration

r = yield to maturity,

$C_t$  = cash payment in time t,

m = total maturity

t = time

The bank shall then allocate each debt instrument to the appropriate zone referred to in the table below. It shall do so on the basis of the modified duration of each instrument.

The duration-weighted position for each instrument shall be calculated by multiplying its market value by its modified duration and by the assumed interest-rate change for an instrument with that particular duration in accordance with the following table:

Zone	Modified duration in years	Assumed interest rate change in %
One	>0 ≤ 1.0	1.00
Two	>1.0 ≤ 3.6	0.85
Three	>3.6	0.70

The bank shall calculate its long duration-weighted positions and its short duration-weighted positions within each zone. The sum of all long duration-weighted positions which is matched by the sum of all short duration-weighted positions within each zone shall be the matched duration-weighted position for that zone. The residual amount shall be considered long/short unmatched duration-weighted position for that zone.

The amount of the long/short unmatched duration-weighted position in zone one which is matched by the long/short unmatched duration-weighted position in zone two shall be referred to as the matched duration-weighted position between zones one and two.

The amount of residual unmatched duration-weighted position in zone two which is matched by the unmatched duration-weighted position in zone three shall be referred to as the matched duration-weighted position between zones two and three.

The amount of residual unmatched duration-weighted position in zone one which is matched by the unmatched duration-weighted position in zone three shall be referred to as the matched duration-weighted position between zones one and three.

The residual unmatched duration-weighted position shall be calculated as the sum of all unmatched duration-weighted positions in all zones.

The capital requirement under this method shall be calculated as the sum of the following elements:

- a) 2% of the matched duration-weighted position for each zone;
- b) 40% of the matched duration-weighted positions between zones one and two;
- c) 40% of the matched duration-weighted positions between zones two and three;
- d) 150% of the matched duration-weighted positions between zones one and three;
- e) 100% of the residual unmatched duration-weighted positions.

## 6.5 Equity risk

### 6.5.1 Definitions

The equity position risk consists of two components: specific risk and general risk.

Specific risk is the risk of a price change in the instrument concerned due to factors related to its issuer or, in the case of a derivative, the issuer of the underlying instrument.

General risk is the risk of a price change in the instrument due to stronger capital market movements unrelated to any specific attributes of individual securities.

The capital requirement for equity risk shall be determined only for equities held in the trading book which has at least one equity instrument.

In terms of this Decision, equity instruments shall include: shares, depository receipts (e.g. GDR), equity indices, convertible bonds and derivative financial instruments relating to shares or equity indices.

### 6.5.2 Determining the net position in a particular equity

An equity position shall be allocated to the national market in which the equity is listed and the standard calculations described below shall be applied for each national market separately.

A bank shall calculate its net long or net short position in each equity. Net long positions and net short positions shall be summed separately.

A bank may offset long and short positions in equity instruments only if they are identical. Equity instruments shall be deemed to be identical if they are issued by the same issuer, if they receive equivalent treatment upon the issuer's liquidation or bankruptcy, and are denominated in the same currency.

Depository receipts may be offset at a specified ratio against the underlying equity instruments only if these depository receipts and the underlying equity instruments are fungible for settlement purposes.

The bank's overall gross position in equities shall be the sum of the absolute values of net long positions and net short positions.

The bank's overall net position in equities shall be the absolute value of the difference between net long positions and net short positions.

### 6.5.3 Methodology for calculating the capital requirement for equity risk

The calculation of the capital requirement in respect of equity position risk shall be the sum of the specific risk capital requirements, general risk capital requirements and capital requirements against interest rate risk embedded in equity derivatives.

6.5.3.1 The capital requirement against specific position risk concerning equities and interest rate risk embedded in equity derivatives shall be calculated in accordance with the standardized method described in items 6.5.3.2 and 6.5.3.3 of this Decision.

The capital requirement against general risk concerning equities shall be calculated in accordance with the method described in item 6.5.3.2 of this Decision. Alternatively, a bank may, with a prior approval of the Croatian National Bank, use an internal model described in chapter 8 of this Decision for the purpose of calculating the capital requirement against this risk.

6.5.3.2 The capital requirement against specific risk concerning equities shall be 5% of the bank's overall gross position in equities. The capital requirement against general risk concerning equities shall be 10% of the bank's overall net position in equities.

#### 6.5.3.3 Interest rate risk embedded in equity derivatives

The capital requirement for a bank's exposure to interest rate risk embedded in equity derivatives shall be calculated as follows:

- First, the capital requirement shall be calculated for each notional position before any netting, as the market value of the underlying position multiplied by the percentages shown in the table below:

Time to expiry date	Percentage of notional position
>0 ≤ 3 months	0.20
>3 ≤ 6 months	0.40
>6 ≤ 12 months	0.70
>1 ≤ 2 years	1.25
>2 ≤ 3 years	1.75
>3 ≤ 4 years	2.25
>4 ≤ 5 years	2.75
over 5 years	3.75

- Second, the capital requirement for all notional interest rate positions shall be calculated as the sum of the absolute values of the individual capital requirements calculated in accordance with the previous sub-item of this item.

## 6.6 Commodity risk

### 6.6.1 Definitions

A bank shall calculate the capital requirement against commodity risk arising from a price change in the commodity which is or can be traded on a secondary market.

The capital requirement against commodity risk shall be calculated for overall bank operations and not just for the trading book positions, provided that the bank has at least one position in commodity.

In accordance with this Decision, a commodity shall be a physical product which is or can be traded on a secondary market, e.g., agricultural products, minerals (including oil), precious metals (excluding gold) and derivative financial instruments relating to these products.

### 6.6.2 Commodity positions

The commodity position risk shall be treated as a single risk, and shall not be broken down into specific and general risk.

For the purpose of calculating the capital requirement against commodity risk, a bank shall first calculate the net positions by individual commodity types, which are the difference between absolute values of long and short positions in these commodities.

Each commodity position shall be expressed in terms of the standard units of measurement (barrels, tons and kilos).

Whenever the commodity's market price is expressed in a foreign currency, the bank shall convert it into kuna by applying the market exchange rate.

Long positions in commodity instruments, including long positions in underlying instruments of commodity derivatives, shall be designated by a plus (+), and short positions in commodity instruments, including short positions in underlying instruments of commodity derivatives, shall be designated by a minus (-).

A bank shall have the net long position in a specific commodity when the sum of long and short positions is positive.

A bank shall have the net short position in a specific commodity when the sum of long and short positions is negative.

The gross position in a specific commodity is the sum of absolute values of long and short positions in the respective commodity.

Before calculating the capital requirement for commodity risk, a bank shall offset long and short positions in identical commodity instruments. Commodity instruments shall be deemed to be identical if they relate to the same commodity, they are denominated in the same currency, mature on the same date, and, in the case of commodity futures and options, are issued by the same issuer.

### 6.6.3 Method of calculating the capital requirement for commodity risk

The capital requirement for commodity risk shall be equal to the total capital requirement for each individual commodity, calculated by using the simplified method in accordance with item 6.6.3.1 or by using the bank's internal model (in accordance with chapter 8 of this Decision).

#### 6.6.3.1 Simplified method

The capital requirement for each commodity shall be equal to the sum of:

- 15% of the net position (long or short), multiplied by the spot market price of the commodity; and
- 3% of the gross position (long plus short), multiplied by the spot market price of the commodity.

The overall capital requirement for commodity risk shall be the sum of the capital requirements calculated for each commodity.

### 6.7 Treatment of options and option-like products

A bank shall calculate the capital requirement for exchange-traded options, over-the-counter options and option-like products (warrants, caps, collars and similar instruments) in accordance with one of the two basic approaches: a simplified approach and a delta-plus method.

#### 6.7.1 Simplified approach

A bank which has an insignificant position only in purchased options may, for the purpose of this Decision, use this approach. If a bank uses this approach for positions in options, these positions shall be excluded from the calculation of capital requirements for other position risks.

6.7.1.1 For purchased call or put options, the capital requirement shall be the lower of:

- (a) market value of the underlying security multiplied by the sum of specific and general market risks for the underlying;
- (b) the market value of the option.

6.7.1.2 For positions which are a combination of purchased put options and long positions in the underlying security or foreign currency, or for positions which are a combination of purchased call options and short positions in the underlying security or foreign currency, the capital requirement shall be the market value of the underlying security (or foreign currency) multiplied by the sum of specific and

general market risks for the underlying less the amount for which the option is in the money.

#### 6.7.2 Delta-plus method

In accordance with this method, options and option-like products (warrants, caps, floors and similar instruments) shall be treated as if they were positions equal in value to the amount of the underlying instrument multiplied by its delta. The delta used shall be that calculated by an organized exchange or, where such a delta is not available (i.e. for over-the-counter (OTC) options), that calculated by the use of the bank's internal model. The internal model for calculating deltas, which a bank uses in accordance with this Decision, shall be approved by the Croatian National Bank. For some specific instruments, the CNB may calculate the deltas to be used in accordance with this Decision.

In the calculation of general position risk and currency risk, the delta equivalents of positions in options may be netted off against any offsetting positions in options with the opposite sign and with the identical underlying securities or derivatives, as follows:

- bought call options as long positions,
- sold call options as short positions,
- bought put options as short positions,
- sold put options as long positions.

Since the delta does not cover the entire risk associated with options, a bank shall calculate additional capital requirements for "gamma" risk (sensitivity parameter which measures the rate of change of the delta) and "vega" risk (sensitivity parameter which measures the sensitivity of the value of an option with respect to a change in volatility).

For exchange-traded options, a bank may use gammas and vegas calculated by the exchange concerned, whereas for over-the-counter options, a bank shall use its internal model for which it must obtain a prior approval from the Croatian National Bank.

## 7 CAPITAL REQUIREMENTS FOR SETTLEMENT AND COUNTERPARTY RISK

### 7.1 Definitions

This item defines the method of calculating capital requirements for settlement and counterparty risk arising from the trading book items.

Settlement/delivery risk and counterparty risk are risks arising from factors related to a counterparty and not to the issuer of the instrument.

Settlement/delivery risk occurs in the case of transactions in which debt instruments, equities or commodities (excluding repurchase and reverse repurchase agreements

and securities/commodities lending agreements and securities/commodities borrowing agreements) are not settled after their due delivery dates.

Counterparty risk occurs in all trading book items that have not matured.

A due delivery date shall mean the date agreed upon for settlement between a bank and its counterparty.

## 7.2 Settlement/delivery risk

Where trading book transactions in debt instruments, equities and commodities between a bank and its counterparty are not settled for 5 or more working days following their due delivery dates, the bank shall calculate its exposure to settlement risk. Exposure to settlement risk shall be calculated as a difference between the agreed settlement price for the debt instrument, equity or commodity in question and its current market value, but only in cases where the difference could involve a loss for the bank.

The capital requirement for settlement/delivery risk shall be calculated by multiplying the bank's exposure calculated in accordance with the previous paragraph of this item by the appropriate factor in column A of the table below.

Number of working days after due settlement/delivery date	Column A %	Column B %
5 - 15	10	0.5
16 - 30	50	4
31 - 45	75	9
46 or more	100	see Column A

A bank shall not calculate exposure to settlement/delivery risk in the case of repurchase and reverse repurchase agreements, and securities/commodities lending agreements and securities/commodities borrowing agreements.

With a prior approval of Croatian National Bank, a bank may calculate its capital requirement by multiplying the agreed settlement price of each transaction which is not settled between 5 and 45 working days after its due delivery date by the appropriate factor in Column B of the table above.

As from 46 working days following the due delivery date, the bank shall take the requirement to be 100% of the price difference to which it is exposed.

## 7.3 Counterparty risk

### 7.3.1 Free deliveries

A bank shall calculate the capital requirement for counterparty risk arising from free deliveries in the following cases:

- it has paid for securities or commodities before receiving them or it has delivered securities or commodities before receiving payment for them; and

- in the case of cross-border transactions, one or more days have elapsed from the day the payment or delivery were effected, as described by sub-item one of this item.

The capital requirement shall be 10% of the value of the securities or commodities or cash owed to a bank multiplied by the credit risk weight applicable to the relevant counterparty, as listed in item 4.2 of this Decision.

### 7.3.2 Repurchase and reverse repurchase agreements, securities or commodities lending agreements and securities or commodities borrowing agreements

In the case of repurchase agreements and securities or commodities lending agreements based on securities or commodities included in the trading book the bank shall calculate the difference between the market value of the securities or commodities it has transferred to a counterparty and either the amount it owes to that counterparty or the market value of collateral it has received from the counterparty, where that difference is positive.

In the case of reverse repurchase agreements and securities or commodities borrowing agreements the bank shall calculate the difference between either the amount owed by a counterparty or the market value of the collateral it has transferred to that counterparty and the market value of the securities or commodities it has received from the counterparty, where that difference is positive.

Accrued interest shall be included in calculating the market value of amounts lent or borrowed and collateral.

The capital requirement for counterparty risk arising from repurchase and reverse repurchase agreements, securities or commodities lending agreements and securities or commodities borrowing agreements shall be 10% of the figure calculated in accordance with paragraphs 1, 2 and 3 of this item, multiplied by the corresponding risk weight listed in item 4.2 of this Decision.

### 7.3.3 Other counterparty risks

A bank shall calculate the capital requirement for counterparty risk in relation to exposures in the form of fees, commission, interest, dividends and margin in exchange-traded futures or options contracts which are directly related to the items included in the trading book and are not included in the calculation of capital requirements for position risks or counterparty risk.

The capital requirement for other counterparty risks shall be 10% of the sum of the exposures referred to in the preceding paragraph, multiplied by the corresponding risk weight listed in item 4.2 of this Decision.

## 8 INTERNAL MODELS

A bank may, with a prior approval of the CNB, calculate its capital requirements for position risk and/or currency risk by using its own internal risk-management models instead of the methods described in chapters 5 and 6 of this Decision. The Croatian

National Bank may allow a bank to use a combination of internal risk-management models and the methods described in chapters 5 and 6 of this Decision.

A bank that wishes to use an internal model in accordance with the first paragraph of this item shall have to demonstrate that its risk-management system is conceptually sound and implemented with integrity and that all qualitative standards (defined in item 8.1 of this Decision) and quantitative standards (defined in item 8.2 of this Decision) are met.

## 8.1 Qualitative standards

8.1.1 A bank that wishes to use the calculations obtained by using its internal models in calculating the capital requirements pursuant to this Decision shall meet the following qualitative standards:

- a) the internal risk-measurement model is closely integrated into the daily risk-management process of a bank and serves as the basis for reporting risk exposures to the bank management board;
- b) the bank has a risk control unit that is independent from business trading units and reports directly to a member of the bank management board. The unit must be responsible for designing and implementing the bank's risk-management system. It shall produce and analyze daily reports on the output of the risk-measurement model and on the appropriate measures to be taken in terms of trading limits;
- c) the bank supervisory and management boards are actively involved in the risk-control process and the daily reports produced by the risk-control unit are reviewed by a level of management with sufficient authority to enforce both reductions of open positions taken by individual traders, as well as the bank's overall risk exposure;
- d) the bank has sufficient number of staff skilled in the use of sophisticated models in the trading, risk-control, audit and back-office areas;
- e) the bank has established procedures for monitoring and ensuring compliance with internal policies and controls concerning the overall operation of the risk-measurement system;
- f) the bank's models have a proven track record of reasonable accuracy in measuring risks;
- g) the bank frequently conducts a rigorous program of stress testing and the results of these tests are reviewed by the management board and reflected in the policies and limits it sets;
- h) the bank must conduct, as part of its regular internal auditing process, an independent review of its risk-measurement system. This review must include both the activities of the business trading units and of the independent risk-control unit. At least once a year, the bank must conduct a review of its overall risk-management process. The review must consider:
  - the adequacy of the documentation of the risk-management system and process and the organization of the risk-control unit,

- the integration of market risk measures into daily risk management and the integrity of the management information system,
- the process the bank employs for approving risk-pricing models and valuation systems that are used by front and back-office personnel,
- the scope of market risks captured by the risk-measurement model and the validation of any significant changes in the risk-measurement process,
- the accuracy and completeness of position data, the accuracy and appropriateness of volatility and correlation assumptions, and the accuracy of valuation and risk sensitivity calculations,
- the verification process the bank employs to evaluate the consistency, timeliness and reliability of data sources used to run internal models, including the independence of such data sources, and
- the verification process the bank uses to evaluate back-testing that is conducted to assess the model's accuracy.

8.1.2 The bank shall continuously monitor the accuracy and performance of its model by conducting a back-testing program. The back-testing has to provide for each business day a comparison between the one-day value-at-risk measure and the generated bank portfolio's value by the end of the subsequent business day. The Croatian National Bank shall examine the bank's capability to perform back-testing on both actual and hypothetical changes in the portfolio's value. Back-testing on hypothetical changes in the portfolio's value is based on a comparison between the portfolio's end-of-day value and, assuming unchanged positions, its value at the end of the subsequent day. The bank shall take appropriate measures to improve its back-testing program if deemed deficient.

For the purpose of calculating capital requirements for specific risk associated with traded debt and equity positions, the Croatian National Bank may recognize the use of a bank's internal model if, in addition to compliance with the conditions in the remainder of this chapter, the model:

- explains the historical price variation in the portfolio;
- captures concentration in terms of magnitude and changes of composition of the portfolio;
- is robust to an adverse environment;
- is validated through back-testing aimed at assessing whether specific risk is being accurately captured. If this back-testing is performed on the basis of relevant sub-portfolios, this must be done consistently.

Banks using internal models which are not recognized in accordance with this item shall be subject to a separate capital charge for specific risk associated with positions in debt and equity instruments included in the trading book in accordance with chapter 6 of this Decision.

8.1.3. A bank which calculates capital requirements for specific risk by using its internal model, which has been previously approved by the Croatian National Bank,

shall calculate these capital requirements by multiplying the results generated by its internal model by a multiplication factor of at least 3.

The multiplication factor shall be increased by a plus-factor of between 0 and 1 in accordance with the following table, depending on the number of overshootings for the most recent 250 business days as evidenced by the bank's back-testing. The bank shall calculate overshootings consistently on the basis of back-testing on both actual and hypothetical changes in the portfolio's value. With respect to this item, an overshooting is a one-day change in the portfolio's value that exceeds the related one-day value-at-risk measure generated by the bank's internal model. For the purpose of determining the plus-factor the number of overshootings shall be assessed at least quarterly, and reported to the Croatian National Bank together with a report on the capital adequacy.

Number of overshootings	Plus-factor
Fewer than 5	0.00
5	0.40
6	0.50
7	0.65
8	0.75
9	0.85
10 or more	1.00

The Croatian National Bank can, owing to an exceptional situation, waive the requirement to increase the multiplication factor by the plus-factor according to the above table, if the bank has demonstrated that such an increase is unjustified and that the model is basically sound.

If numerous overshootings or other factors indicate that the model is not sufficiently accurate, the Croatian National Bank shall revoke the model's recognition or impose appropriate measures to ensure that the model is adequately and promptly improved.

Banks shall notify immediately, and in any case no later than within five working days, the Croatian National Bank of overshootings that result from their back-testing program and that would according to the above table imply an increase of a plus-factor.

8.1.4 If the bank's internal model has been approved by the Croatian National Bank in accordance with item 8.1.2 of this Decision for the purpose of calculating capital requirements for specific risk, the bank shall increase its capital requirement calculated pursuant to item 8.1.3 by a surcharge in the amount of either:

- a) the specific risk portion of the value-at-risk measure which should be isolated according to any guidelines which may be prescribed the CNB; or, by using the bank's methodology, which has been previously approved by the CNB,
- b) the value-at-risk measures of sub-portfolios of debt and equity positions that contain specific risk.

Banks using option (b) shall be required to identify their sub-portfolio structure beforehand and shall not change it without the prior approval of the CNB.

The CNB may waive the requirement pursuant to the sixth paragraph of this item for a surcharge if the bank demonstrates that, in accordance with the generally accepted international standards, its model accurately captures the event risk and default risk for all its positions in traded debt and equity instruments.

8.1.5 A bank which calculates capital requirement by using an approved internal model shall calculate this capital requirement as the higher of:

- a) its previous day's value-at-risk number measured according to the parameters specified in this chapter;
- b) an average of the daily value-at-risk measures on each of the preceding 60 business days, multiplied by the factor calculated according to item 8.1.3.

## 8.2 Quantitative standards

8.2.1 A bank may be granted an approval to use its internal model for the calculation of capital requirements in accordance with this Decision if its internal model is based on value-at-risk and meets the following minimum standards:

- at least daily calculation of value-at-risk;
- a 99th percentile, one-tailed confidence interval;
- a 10-day equivalent holding period;
- 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;
- three-monthly data set updates.

8.2.2 A bank shall ensure that the model it uses accurately captures all the material price risks of options or option-like positions and that any other risks not captured by the model are covered adequately by the bank's regulatory capital. With regard to options, the bank's internal model shall:

- capture the non-linear price characteristics of positions in options; banks are expected to ultimately move towards the application of a full 10-day price shock to positions in options or option-like instruments. In the interim period, they may adjust their capital requirement for options risk by using other methods, e.g., periodic simulations or stress testing programs;
- have a set of risk factors that capture the volatilities of the rates and prices of underlying option positions, i.e. vega risk. Banks with relatively large and/or complex options portfolios should have detailed specifications of the relevant volatilities. This means that banks shall measure the volatilities of positions in options broken down by different maturities.

8.2.3 The internal risk-measurement model, which is to be used for the calculation of capital requirements pursuant to this Decision shall capture a sufficient number of risk factors, depending on the level of activity of a bank in the respective markets. As a minimum, the following provisions shall be respected:

- a) for interest rate risk, the internal risk-measurement model shall incorporate a set of risk factors corresponding to the interest rates in each currency in which a bank has interest rate sensitive on- or off-balance sheet positions. Banks shall model the yield curves using one of the generally accepted approaches. For material exposures to interest rate risk in the major currencies and markets, the yield curve shall be divided into a minimum of six maturity segments, in order to capture the variations of volatility of rates along the yield curve. The risk-measurement system shall capture the risk of less than perfectly correlated movements between different yield curves;
- b) for currency risk, the internal risk-measurement model shall incorporate risk factors corresponding to gold and to the individual foreign currencies in which the bank's positions are denominated;
- c) for equity risk, the internal risk-measurement model shall use a separate risk factor at least for each of the national equity markets in which a bank holds significant positions;
- d) for commodities risk, the internal risk-measurement model shall use a separate risk factor at least for each commodity in which a bank holds significant positions. The internal risk-measurement model shall also capture the risk of less than perfectly correlated movements between similar, but not identical, commodities and the exposure to changes in forward prices arising from maturity mismatches. It shall also take account of market characteristics, notably delivery dates and the scope provided to traders to close out positions.

The CNB may allow a bank to use empirical correlations within risk categories and across risk categories if it demonstrates that its model for measuring correlations is sound and implemented with integrity.

## 9 EXCEEDING THE PERMISSIBLE EXPOSURE LIMITS

9.1 In accordance with item 1, Article 75 of the Banking Law (official gazette *Narodne novine*, No. 84/02), a bank shall monitor and control its exposures to individual persons and groups of connected persons. The bank shall monitor these exposures separately for the trading book items and for other items.

The exposures to individual persons arising from the trading book (defined in chapter 3 of this Decision) shall be calculated by summing the following items (1), (2) and (3):

1. the excess of bank's long positions over its short positions in all the financial instruments issued by the person in question (the net position in each of the different instruments, calculated according to the methods defined in chapter 6 of this Decision);
2. in the case of underwriting of debt or equity securities, the bank's exposure shall be its net exposure (which is calculated by deducting those underwriting positions which are subscribed or sub-underwritten by third parties on the basis of a formal agreement) reduced by the factors defined in item 6.3 of this Decision;
3. the exposures arising from the transactions and agreements referred to in chapter 7 of this Decision with the client in question, such exposures being calculated by

using the method prescribed in that chapter, without application of the weights for credit risk.

9.2 The exposures to groups of connected persons arising from the trading book items shall be calculated by summing the exposures to individual persons in a group, in accordance with item 9.1 of this Decision.

The overall exposures to individual persons or groups of connected persons shall be calculated by summing the exposures arising from the trading book items and the exposures arising from other items.

9.3 A bank may exceed the maximum permissible exposure limits (defined in item 1, Article 75 of the Banking Law) subject to the following conditions being met simultaneously:

1. the exposure to a particular person or a group of connected persons arising from other items does not exceed the limitations laid down in item 1, Article 75 of the Banking Law, and the excess, if it exists, arises exclusively and entirely from the trading book items;
2. a bank meets an additional capital requirement on any excess in respect of the permissible exposure limits.

9.4 An additional capital requirement for the excess referred to in sub-item 2, item 9.3 of this Decision shall be calculated by selecting those trading book items which constitute the total exposure to a particular person or a group of connected persons and attract the highest specific-risk requirements in accordance with chapter 6 of this Decision and/or requirements in chapter 7 of this Decision, the sum of which equals the amount of the excess referred to in sub-item 1, item 9.3 of this Decision.

9.5 Where the excess (defined in item 9.4) has not persisted for more than 10 days from the day the excess has occurred, a bank shall calculate additional capital requirement in the amount of 200% of the excess in question.

9.6 As from 10 days after the excess has occurred, the items constituting the excess (selected in accordance with the above criteria), shall be allocated to the appropriate line in column 1 of the table below in the ascending order of specific-risk requirements (according to chapter 6 and/or chapter 7 of this Decision). The bank shall then calculate an additional capital requirement equal to the sum of the specific-risk requirements (according to chapter 6 and/or chapter 7 of this Decision) on these items multiplied by the corresponding factor in column 2 of the table below:

Excess over the exposure limits (in % of regulatory capital)	Factors
up to 40%	200%
from 40% to 60%	300%
from 60% to 80%	400%
from 80% to 100%	500%
from 100% to 250%	600%
over 250%	900%

9.7 Where 10 days or less have elapsed since the excess has occurred, the sum of the bank's exposures to an individual person or a group of connected persons arising from trading book items must not exceed 500% of the bank's regulatory capital.

9.8 The sum of all excesses which have persisted for more than 10 days from the day they have occurred must not exceed 600% of the bank's regulatory capital.

9.9 A bank shall report to the CNB every three months all the cases where the limits laid down in item 1, Article 75 of the Banking Law have been exceeded during the preceding three months. In each report on a case where the limits have been exceeded, the bank shall report on the amount of the excess and the name of the client concerned.

## 10 COSOLIDATED CAPITAL ADEQUACY

Each bank considered a superordinate company in terms of Article 90, paragraph 3 of the Banking Law (official gazette *Narodne novine*, No. 84/02) in relation to another bank, financial institution or an investment company, as well as each bank whose superordinate company is a financial holding with a head office in the Republic of Croatia shall apply this Decision on an individual and consolidated basis.

### 10.1 Calculation of the consolidated regulatory capital

The consolidated regulatory capital shall not be below the minimum amount of share capital prescribed in Article 15 of the Banking Law (official gazette *Narodne novine*, No. 84/02).

The full consolidation method shall be applied in the calculation of all individual components of the consolidated regulatory capital.

In calculating the consolidated regulatory capital, the following items shall be considered consolidated reserves:

- (a) a minority interest - which is any amount arising from ownership of other persons (which are not included in the consolidation) in the company subject to the consolidation;
- (b) goodwill;
- (c) the translation differences - which arise from the differences in the reporting currencies of financial statements of a company included in the consolidation and the superordinate company;
- (d) participating interests of companies included in the consolidation in third parties in exceptional cases when the CNB prescribes that these companies are also included in the consolidation for the purpose of this Decision.

Where the above stated items have a negative sign (credit items), they shall be added to the consolidated core capital, and where the above stated items have a positive sign (debit items), they shall be deducted from the consolidated core capital.

### 10.2 Calculation of the consolidated capital requirements

In calculating the consolidated capital requirements, a bank shall apply one of the two methods described below in a manner prescribed in this chapter:

- (a) an aggregation method - under which individual capital requirements (i.e. positions) of the companies for which the consolidated capital requirement is being calculated are summed without the mutual netting of exposures to the same risk, with different signs;
- (b) a full consolidation method - under which the consolidated capital requirements are determined by taking into account all individual items which constitute an exposure of an individual company included in the consolidation, and allowing thus a netting of exposures of the same items with a different sign between the companies for which the consolidated capital requirement is being calculated.

10.2.1 Credit risk-weighted assets of a group for which the consolidated capital requirement is being calculated shall be determined by using the full consolidation method and by weighting thus obtained items in accordance with chapter 4 of this Decision.

The full consolidation method shall not be applied to determine the consolidated capital requirement if one or more companies for which the capital requirement is being calculated is an investment company. Instead, their net exposure to credit risk shall be added to the previously established credit risk-weighted assets calculated for other companies included in the consolidation.

The consolidated capital requirement for credit risk shall be 10% (or another ratio prescribed by the CNB) of the credit risk-weighted assets determined in accordance with the previous paragraphs.

10.2.2 The overall open foreign exchange position of a group for which the consolidated capital requirement for currency risk is being calculated shall be determined by using the aggregation method. With a prior approval of the CNB, the companies calculating the consolidated capital requirement for currency risk may use the full consolidation method if a group manages currency risk in a centralized manner and if all of the following conditions are met:

- (a) a superordinate company calculates and controls currency risk as the risk of the entire group;
- (b) all subordinate companies maintain the prescribed capital adequacy on an individual basis;
- (c) a superordinate company has the knowledge and resources to apply the full consolidation method;
- (d) capital may be freely transferred within the group.

The consolidated capital requirement shall be 10% (or another ratio prescribed by the CNB) of the overall open foreign exchange position of a group determined in accordance with the previous paragraphs.

10.2.3 Exposures to position risks shall be separately calculated by each subordinate company in accordance with the methodology described in chapter 6 of this Decision.

The obtained exposures shall be summed by each type of risk (interest rate risk, equity risk and commodities risk).

With a prior approval of the CNB, the companies which calculate the consolidated capital requirement for position risks may use the full consolidation method if a group manages these risks in a centralized manner and if all of the following conditions are met:

- (e) a superordinate company calculates and controls these risks as the risks of the entire group;
- (f) all subordinate companies maintain the prescribed capital adequacy on an individual basis;
- (g) a superordinate company has the knowledge and resources to apply the full consolidation method;
- (h) capital may be freely transferred within the group.

If a bank uses the full consolidation method in the calculation of the consolidated capital requirement for position risks, in the calculation of general position risk, each company may use its net positions in identical instruments, instead of consolidating the long and short position in these instruments. If this approach is used in calculating the consolidated capital requirement for general position risks in one subordinate company, the same approach must be used by all companies included in the consolidation.

The consolidated capital requirement for position risks shall be 10% (or another ratio prescribed by the CNB) of the overall exposure to position risks calculated in accordance with the previous paragraphs.

10.2.4 The consolidated capital requirement for settlement risk, counterparty risk, and risk of exceeding the permissible exposure limits shall be calculated by the use of the aggregation method.

10.2.5 If, in accordance with this chapter of the Decision, one of the companies included in the consolidation uses the internal model approved by the CNB for some/all market risks, the result obtained by application of this internal model may be used in calculating the consolidated capital requirement for that risk only if the group as a whole uses the aggregation method in calculating the stated capital requirement. The result which is then taken into account shall include the multiplication and plus-factors, as well as all other corrections prescribed in chapter 8 of this Decision.

10.2.6 The provisions of item 3.2 of this Decision shall be applied, as appropriate, in calculating the consolidated capital requirements.

10.3 The consolidated capital adequacy ratio is the ratio between the consolidated regulatory capital and the consolidated credit risk-weighted assets, calculated in accordance with item 10.2.1 of this Decision, increased by the consolidated overall exposure to currency risk (calculated in accordance with item 10.2.2 of this Decision), the consolidated capital requirement for position risks (calculated in accordance with item 10.2.3 of this Decision) multiplied by 10, the consolidated capital requirement

for settlement risk, counterparty risk and risk of exceeding the permissible exposure limits (calculated in accordance with item 10.2.4 of this Decision) multiplied by 10.

A group of companies which calculates the consolidated capital requirement in accordance with this chapter shall maintain the consolidated capital adequacy ratio at the level of a minimum 10%.

## 11 TRANSITIONAL AND FINAL PROVISIONS

11.1 The Governor of the Croatian National Bank shall issue the Instruction on the calculation method, reporting forms and dynamics pursuant to this Decision.

11.2 As of the date of its application, this Decision shall supersede the Decision on the Methodology for Calculating Bank's Capital (official gazette *Narodne novine*, No. 32/99 and 101/2000), Instruction for the Uniform Implementation of the Decision on the Methodology for Calculating Bank's Capital (official gazette *Narodne novine*, No. 123/2000), Decision on the Methodology for Calculating Capital Adequacy and Risk-Weighted Assets of Banks (official gazette *Narodne novine*, No. 32/99 and 101/2000) and Instruction for the Uniform Implementation of the Decision on the Methodology for Calculating Capital Adequacy and Risk-Weighted Assets of Banks (official gazette *Narodne novine*, No. 123/2000).

11.3 This Decision shall enter into force on the eighth day following its publication in the official gazette *Narodne novine* and shall be applied as of 1 January 2004.

Decision No. 9-020/01-03/ŽR  
Zagreb, 15 January 2003

Governor  
of the Croatian National Bank  
Željko Rohatinski, Ph.D.