RS Official Gazette, Nos 103/2016, 103/2018, 88/2019, 67/2020, 98/2020, 137/2020, 59/2021, 67/2022, 137/2022 and 48/2023

Based on Article 21, paragraph 3, Article 23, paragraph 5 and Article 24, paragraphs 2 and 4 of the Law on Banks (RS Official Gazette, Nos 107/2005, 91/2010 and 14/2015) and Article 15, paragraph 1 of the Law on the National Bank of Serbia RS Official Gazette, Nos 72/2003, 55/2004, 85/2005 – other law, 44/2010, 76/2012, 106/2012, 14/2015 and 40/2015 – CC decision), the Executive Board of the National Bank of Serbia hereby adopts

D E C I S I O N
ON CAPITAL ADEQUACY OF BANKS

Chapter I

BASIC PROVISIONS

1. This decision lays down the method of calculating capital and capital adequacy of a bank, conditions and manner of obtaining consent to the calculation of bank capital and capital adequacy, the criteria for setting capital adequacy ratio above the regulatory minimum, conditions and manner of calculating risk-weighted assets, including conditions for obtaining consent to the application of individual approaches to calculating such assets, as well as the conditions and manner of issuing consent regarding the eligibility of credit assessments assigned by credit assessment institutions.

2. For the purposes of this Decision, specific terms shall have the following meaning:

1) *exposure* means a balance sheet asset or an off-balance sheet item;

2) *credit risk adjustments* means the amount of specific and general loan loss provisions for credit risk, that is, the sum of all amounts for which the bank's Common Equity Tier 1 capital has been reduced to disclose losses that are related exclusively to credit risk and are recognised in the bank's income statement in accordance with the International Financial Reporting Standards, or International Accounting Standards (hereinafter: IFRS/IAS), regardless of whether they are a result of impairment, valuation adjustments or provisions for losses on off-balance sheet items;

3) *general credit risk adjustments* include a part of the amount of credit risk adjustments which is without limitation, entirely and at any given moment available for covering losses under credit risk that have not been incurred yet, and which relates to losses under credit risk for the group of exposures where a bank currently does not have evidence of incurred losses, or which include the following losses:

– losses recognised for the coverage of portfolio-level losses which are larger than average, recorded over the previous years although there is currently no evidence that the event leading to that level of losses in the past has actually occurred,

– losses recognised for a group of exposures where a bank does not have evidence of deterioration in the credit quality, and where, on grounds of past experiences, a specific degree of non-payment is statistically possible;

4) *specific credit risk adjustments* include a part of the amount of credit risk adjustments relating to the following losses:

– losses on instruments measured at fair value which constitute impairments under credit risk in accordance with the IFRS/IAS,

– losses incurred as a result of current or past events which affect the individually significant exposure or exposures which are not individually significant and are evaluated on an individual or group basis,

– losses for which the previous experience and currently available data suggest that the loss has occurred, but a bank does not yet know which individual exposure has suffered the loss;

5) *public administrative bodies* means public sector entities which are under the supervision of public authorities and which have not been established for commercial purposes;

6) *multilateral development bank* means a legal person whose majority shareholders are from at least three countries and whose main activity is the provision of funding for economic development of all member states or a selected group thereof;

7) *small and medium-sized enterprises* means companies classified, according to the law governing accounting and auditing, into micro, small or medium-sized legal entities;

8) *credit assessment institution* means a legal person whose predominant activity is the assignment of credit assessments to legal entities and/or financial instruments;

9) *eligible credit assessment institution* means a credit assessment institution registered or certified in accordance with the relevant EU regulations and included in the list announced by the National Bank of Serbia;

10) *nominated credit assessment institution* means a credit assessment institution whose credit assessments the bank decided to use to determine credit risk weights for individual classes of exposure;

11) *mapping of credit assessments* means a process of assigning individual credit assessments of an eligible credit assessment institution to credit quality steps;

12) *solicited credit assessment* means a credit assessment assigned by a credit assessment institution based on own evaluation and at the explicit request of the client;

13) *residential property* means a house, an apartment and parts of a residential building intended for dwelling, a garage or a garage place

associated with an apartment, as well as a plot of land with a building permit for house construction; vacation homes shall not be considered residential property;

14) *market value of immovable property* means the estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction wherein the parties had each acted knowledgeably, prudently and without compulsion; this value shall be transparently and clearly documented and shall be determined by an authorised valuer;

15) *authorised valuer* means a person who, in accordance with the law governing the profession of real estate valuers, is authorised to perform real estate valuation, or an authority which, pursuant to the law governing tax procedure and tax administration, is competent for conducting tax proceedings; this person shall not be a person related to the borrower in the manner set forth by the Law on Banks and shall not be involved in the process of loan approval or sale of property;

16) *speculative immovable property financing* means loans for the purposes of the acquisition of or development or construction on land in relation to immovable property, or acquisition/development of immovable property, with the intention of reselling for profit;

17) *trade finance* means financing connected to the exchange of goods and services through financial instruments and services (including guarantees and warranties) of fixed maturity, generally of less than one year, without automatic rollover;

18) *covered bonds* means debt securities the issuing of which is subject to a special law, which meet the following conditions:

– their issuer is a bank or a legal person outside the Republic of Serbia whose predominant activity is receiving deposits and granting loans for its own account and which is under supervision of the competent public authority designed to protect the rights of the holders of these bonds,

– they are collateralised by assets which provide sufficient coverage for liabilities attaching to these bonds over the entire period until their maturity and proceeds from the sale of these bonds are invested in these assets,

– in the event of bankruptcy or liquidation of the bond issuer, the holders of these bonds, in accordance with that law, have the secured right in respect to the assets serving as collateral;

19) *internal ratings-based approach* (hereinafter: IRB Approach) means a type of IRB Approach where a bank applies internal rating systems to calculate capital requirements for credit risk;

20) *foundation IRB approach* (hereinafter: FIRB Approach) means a type of IRB Approach under which a bank uses its own estimates of probability of default (PD) and prescribed estimates of loss given default (LGD), conversion factors and effective maturities (M);

21) *advanced IRB approach* (hereinafter: AIRB Approach) means a type of IRB Approach under which a bank uses its own estimates of probability of default (PD), own estimates of loss given default (LGD) and conversion factors and, where applicable, own estimates of effective maturities (M);

22) *probability of default* (hereinafter: PD) means the probability of default of a counterparty over a period of one year from the date of estimate;

23) *loss given default* (hereinafter: LGD) means the ratio of the loss on an exposure due to the default of a counterparty to the amount of exposure to that counterparty outstanding at default, where loss means economic loss which takes account of the time value of money (including material discount effects), as well as material direct and indirect costs associated with collection of the claim;

24) *expected loss* (hereinafter: EL) means the ratio of the amount expected to be lost on an exposure from a potential default of a counterparty or dilution of the purchased claim over a one-year period to the amount outstanding at default;

25) *conversion factor* means the ratio of the currently undrawn amount of an off-balance sheet commitment that could be drawn and outstanding at default to the currently undrawn amount of the off-balance sheet commitment; the extent of the off-balance sheet commitment shall be equal to the advised limit, unless the unadvised limit is higher;

26) *maturity* (hereinafter: M) means the longest possible remaining period in which the obligor is expected to settle his obligation;

27) *credit risk mitigation technique* means the use of credit protection instruments to reduce credit risk to which a bank is exposed on one or several exposures;

28) *funded credit protection instruments* means instruments by the use of which a bank reduces its credit risk exposure deriving from its right – in the event of default of its obligor or on the occurrence of other specified credit events relating to that obligor:

– to liquidate, or to obtain transfer or appropriation of, or to retain certain assets, or

– to reduce the amount of the exposure by the amount of a claim on the bank, or to replace the amount of exposure with the amount of the difference between the amount of the exposure and the amount of a claim on the bank;

29) *unfunded credit protection instruments* means instruments by the use of which a bank reduces its credit risk on the exposure where this reduction derives from the obligation of a third party to pay an amount to the bank in the event of default of the borrower or the occurrence of other specified credit events relating to that borrower;

30) *underlying exposure* means a balance sheet assets position or off-balance sheet item for which credit protection has been obtained;

31) *credit event* means a contractually specified event or circumstance the occurrence of which entitles the bank to use credit protection instruments;

32) *capital market-driven transaction* means a transaction conferring upon a bank the right, during the validity of the agreement, to demand from the obligor, pledgor or other collateral provider additional collateral on at least a daily basis if the value of the existing collateral (margin) is reduced during the validity of the agreement;

33) *secured lending transaction* means a transaction where the bank does not have the right referred to in item 32) of this Section;

34) *credit derivative* means a derived financial instrument, i.e. a contract where the credit protection provider undertakes to pay out to the protection buyer upon occurrence of default of an obligor or another contractually specified credit event the amount equal to one of the following:

– the decline in the value of the reference obligation with respect to the initial value (cash settlement variable),

– the entire notional value of the reference obligation in exchange for the delivery of that obligation or another equivalent financial instrument (deliverable obligation),

– a specified fixed amount (binary payout);

35) *reference obligation* means an obligation used for the purposes of determining the cash settlement value of the protection provider's obligation under a credit derivative or an obligation that is transferred to the protection provider under that derivative;

36) *CDS derivative* (Credit Default Swap) means a type of a credit derivative under which the credit protection provider undertakes to compensate the protection buyer for the loss in the event of default by the obligor or occurrence of any other specified credit event for which the credit protection buyer pays the protection provider a relevant premium;

37) *TRS derivative* (Total Return Swap) means a type of a credit derivative under which the credit protection buyer transfers all cash flows on the underlying exposure to the credit protection provider for which the credit protection provider pays a premium calculated on the basis of reference interest rate increased by a certain spread, as follows:

– where the value of the underlying exposure upon maturity of a TRS derivative exceeds its value at the time of the conclusion of the contract – the credit protection buyer pays the difference in the value of the underlying exposure to the protection provider,

– where the value of the underlying exposure upon maturity of a TRS derivative is less than its value at the time of the conclusion of the contract – the credit protection provider pays the difference in the value of the underlying exposure to the protection buyer,

– in the event of default by the obligor or on the occurrence of another specified credit event – the contract is terminated and the loss is borne by the credit protection provider;

38) *volatility adjustment* (haircut) means a corrective factor that reflects price or exchange rate volatility and is used to adjust the value of exposure or collateral;

39) *CLN derivative* (Credit Linked Note) means a type of credit derivative with an embedded CDS derivative whose maturity is generally the same as the maturity of the asset concerned, and which enables the credit protection buyer to transfer the risk associated with the asset concerned to the credit protection provider; the credit protection provider receives an increased regular coupon payment, and, once the instrument matures, it receives its value as well, unless a specified credit event occurs on the asset concerned;

40) *basket credit derivative* means a type of credit derivative which is used to transfer to the credit protection provider the credit risk for more than one exposure or for a group of exposures;

41) *first-to-default credit derivative* means a type of basket credit derivative where the credit protection provider undertakes to compensate the losses to the protection buyer upon occurrence of default on any of the exposures included in the contract which is the basis for this derivative, due to which such contract shall be terminated;

42) *nth-to-default credit derivative* means a type of basket credit derivative where the credit protection provider undertakes to compensate the losses to the protection buyer upon occurrence of the nth default among exposures included in the contract;

43) *securitisation* means one or more transactions whereby the credit risk associated with an exposure or pool of exposures is tranched, while transactions have the following characteristics:

– payments in the transaction or transactions are dependent upon the performance of the exposure or pool of exposures,

– the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or transactions;

44) *re-securitisation* means securitisation where at least one of the exposures is a securitisation position;

45) *traditional securitisation* means a securitisation where the originator bank transfers the securitised exposures to a securitisation special purpose entity, based on which this entity issues securities that are secured by assets sold to investors. The securities issued do not represent payment obligations of the originator bank;

46) *synthetic securitisation* means a securitisation where the originator bank does not transfer securitised exposures, but transfers credit risk associated with these exposures by grouping them in tranches, using credit derivatives or guarantees;

47) *originator* means:

– an entity which itself or through related entities, directly or indirectly, was involved in the original agreement which created the

obligations or potential obligations of the debtor or potential debtor giving rise to the exposure being securitised; or

– an entity which purchases a third party's exposures for its own account and then securitises them;

48) *securitisation special purpose entity* (SSPE) means an entity other than a bank, organised for carrying out a securitisation or securitisations, the activities of which are limited to those relating to securitisation, the structure of which is intended to isolate the obligations of the SSPE from those of the originator bank, and in which the owners or other holders of the beneficial interests have the right to pledge or exchange those interests without restriction;

49) *sponsor* means a bank that establishes and manages an asset-backed commercial paper programme or other securitisation scheme that purchases exposures from third-party entities;

50) *investor* means an owner of securities or a legal person that undertook the credit risk associated with securitised exposures, other than an originator bank, sponsor or servicer;

51) *servicer* means a legal person that manages a pool of purchased receivables or the underlying exposures on a day-to-day basis on behalf of investors or other creditors in securitisation transactions;

52) *securitised exposures* means exposures that are the subject of securitisation;

53) *securitisation position* means exposure or pool of exposures to a securitisation (e.g. securities issued by an SSPE, liquidity facilities, transactions of interest rate and foreign currency financial derivatives or credit derivatives);

54) *re-securitisation position* means exposure or pool of exposures to a re-securitisation;

55) *first-loss tranche* means the most subordinated tranche in a securitisation, or a tranche that is subordinate to all other tranches in that securitisation and the first to bear losses incurred on the securitised exposures and thereby provides protection to the second-loss and, where relevant, other higher ranking tranches;

56) *mezzanine securitisation position* means a securitisation position:

– to which a risk weight lower than 1,250% applies,

– which does not have the most senior claim in a securitisation,

– which is more junior than any securitisation position in this securitisation to which, in accordance with the Standardised Approach in Chapter IV, Part 4, Subpart 4, under a) of this Decision, credit quality step 1 is assigned, or in accordance with the IRB Approach under Chapter IV, Part 4, Subpart 4, under b) of this Decision, credit quality steps 1 or 2 are assigned;

57) *liquidity facility* means the securitisation position arising from a contractual agreement to provide funding to ensure timeliness of cash flows to investors;

58) *rated position* means a securitisation position which has a credit assessment by an eligible credit assessment institution;

59) *unrated position* means a securitisation position which does not have a credit assessment by an eligible credit assessment institution;

60) *tranche* means a contractually established segment of the credit risk associated with an exposure or a number of exposures, where a position in the segment entails a risk of credit loss greater than or less than a position of the same amount in each other such segment, without taking account of credit protection provided by third parties directly to the holders of positions in the segment or in other segments;

61) *correlation trading* means a trading strategy based on the monitoring of average correlation of instruments;

62) *credit enhancement* means a contractual arrangement whereby the credit quality of a position in a securitisation is improved in relation to what it would have been if the enhancement had not been provided, including the enhancement provided by more junior tranches in the securitisation and other types of credit protection;

63) *clean-up call option* means a contractual option for the originator bank to repurchase or extinguish the securitisation positions before all of the underlying exposures have been repaid, when the amount of outstanding exposures falls below a specified level;

64) K_{IRB} means 8% of the risk-weighted exposure amounts, assuming they have not been securitised, plus the amount of expected losses associated with those exposures calculated according to the IRB Approach;

65) *asset-backed commercial paper programme* (hereinafter: ABCP programme) means a programme of securitisations the securities issued by which predominantly take the form of commercial paper with an original maturity of one year or less;

66) *revolving exposure* means an exposure whereby customers' outstanding balances are permitted to fluctuate based on their decisions to borrow and repay the approved funds, up to an agreed limit;

67) *revolving securitisation* means a securitisation where the securitisation structure itself revolves by exposures being added to or removed from the pool of exposures irrespective of whether the exposures revolve or not;

68) *early amortisation provision* means a contractual clause in a securitisation of revolving exposures or a revolving securitisation which requires, on the occurrence of defined events, investors' positions to be redeemed before the originally stated maturity of the securities issued;

69*) settlement/delivery risk* means the possibility of adverse effects on a bank's financial result and capital arising from unsettled transactions or counterparty's failure to deliver in free delivery transactions on the due delivery date;

70) *unsettled transaction* means a transaction relating to securities, currencies or commodities (excluding transactions under repurchase and

reverse repurchase agreements and securities or commodities lending or borrowing agreements) which is to be settled according to the delivery-versus-payment principle, and which has not been settled by the contractual settlement date due to the default of the counterparty;

71) *free delivery* means a transaction relating to securities, currencies or commodities (excluding transactions under repurchase and reverse repurchase agreements and securities or commodities lending or borrowing agreements) under which payment and delivery are not simultaneous (i.e. not settled according to the delivery-versus-payment principle), and hence a counterparty can execute payment/delivery before the other counterparty has executed its contractual obligation;

72) *counterparty credit risk* means the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows or settlement of monetary liabilities under that transaction;

73) *repurchase agreement* means an agreement under which a bank sells securities or commodities subject to a commitment to repurchase these securities or these commodities, or securities or commodities of the same description at a specified price on a future date specified, or to be specified, by the bank, while a *reverse repurchase agreement* is an agreement under which a bank purchases securities or commodities subject to a commitment to sell back these securities or these commodities, or securities or commodities of the same description at a specified price on a future date specified, or to be specified, by the seller, provided both repurchase and reverse repurchase agreements meet the following conditions:

– a bank or its counterparty transfers the title to securities or commodities that are the subject of the agreement,

– a bank may transfer the securities or commodities that are the subject of the agreement to only one counterparty at one time;

74) *repurchase transaction* means any transaction governed by a repurchase agreement or a reverse repurchase agreement;

75) *simple repurchase agreement* means a repurchase or reverse repurchase agreement with a single underlying instrument or a group of similar instruments, as opposed to agreements relating to a larger number of complex instruments (e.g. a basket of assets);

76) *securities or commodities lending agreement* means an agreement under which a bank lends securities or commodities to a counterparty against appropriate collateral, subject to a commitment that this counterparty will return these securities or commodities at a specified date or when requested by the bank;

77) *securities or commodities borrowing agreement* means an agreement under which a counterparty lends securities or commodities to a bank against appropriate collateral, subject to a commitment that the bank will return these securities or commodities at a specified date or when requested by that counterparty;

78) *securities financing transaction* means a transaction where securities are used for borrowing funds and vice versa (repurchase transactions, reverse repurchase transactions, securities lending or borrowing transactions to the counterparty, etc.)

79) *OTC derivative* means a financial derivative that is traded over-the-counter;

80) *commodities* means physical products traded on an organised market (e.g. agricultural products, minerals – including oil, precious metals – excluding gold), as well as financial derivatives relating to these products;

81) *commodities financing* means a position in the trading book arising from commodity forward sale, where the costs of commodities financing are predetermined and do not change until the date of the forward sale;

82) *long settlement transaction* means a transaction where a counterparty undertakes to transfer or deliver securities, commodities or a foreign exchange amount against cash, other financial instruments or commodities, and where the contractually specified period between the trading date and settlement date is later than the market standard for this particular type of transaction or longer than five working days after the transaction has been entered into, whichever is earlier;

83) *margin lending transaction* means a transaction in which a bank extends credit in connection with the purchase, sale, transfer or trading of securities;

84) *master netting agreement* means an agreement providing for the netting of mutual claims and liabilities arising from several individual legal transactions, and for the terms and conditions of netting when the subjects of these transactions are different, and that default of a party on any of the transactions gives to the non-defaulting party the right to terminate that agreement;

85) *netting set* means a group of transactions with a single counterparty that is subject to bilateral netting arrangements and which fulfils the requirements laid down in Chapter IV, Part 3, and Part 5, Subpart 6 of this Decision; each transaction that is not subject to these arrangements shall be treated as its own netting set; under the Internal Model Method, all netting sets with a single counterparty may be treated as a single netting set if negative simulated market values of the individual netting sets are set to 0 in the estimation of expected exposure (EE);

86) *risk position* means a risk number that is assigned to a transaction under the Standardised Method set out in Chapter IV, Part 5, Subpart 4 of this Decision;

87) *hedging set* means a group of risk positions arising from the transactions within a single netting set, where only the net balance of those risk positions is used for determining the exposure value under the Standardised Method set out in Chapter IV, Part 5, Subpart 4 of this Decision;

88) *margin agreement* means a separate agreement or provisions of an agreement under which one counterparty is entitled to demand from the other

counterparty additional collateral if its exposure to that other counterparty exceeds a specified level;

89) *margin threshold* means the largest amount of an exposure to a counterparty that remains outstanding before one party has the right to call for collateral;

90) *margin period of risk* means the period from the most recent exchange of collateral covering a netting set of transactions with a defaulting counterparty until the transactions are closed out and the resulting market risk is re-hedged;

91) *effective maturity of a netting set* with maturity greater than one year means, under the Internal Model Method, the ratio of the sum of expected exposure over the life of the transactions in the netting set discounted at the risk-free rate of return, divided by the sum of expected exposure over one year in the netting set discounted at the risk-free rate; this effective maturity may be adjusted to reflect rollover risk by replacing expected exposure with effective expected exposure for forecasting horizons under one year;

92) *contractual cross-product netting agreement* means an agreement between a bank and a counterparty which creates a single obligation or a receivable (due to the netting of included transactions), and which covers all underlying standardised netting agreements and transactions belonging to different product categories covered by the agreement; different product categories include repurchase transactions, securities or commodities lending or borrowing transactions, margin lending transactions and financial derivative instruments set out in Annex 1 to this Decision;

93) *current market value*, for the purposes of applying the Standardised Method under Chapter IV, Part 5 of this Decision, means the net market value of the portfolio of transactions within a netting set, where both positive and negative market values of transactions in that set are used in computing that value;

94) *distribution of market values of transactions* means the forecast of the probability distribution of net market values of transactions within a netting set for a future date, given the realised market value of those transactions at the forecast date, where the period between these dates is the forecasting horizon;

95) *distribution of exposures* means the forecast of the probability distribution of market values of transactions or exposures that is generated by setting forecast instances of negative net market values equal to zero;

96) *risk-neutral distribution* means a distribution of market values of transactions or exposures over a future time period where the distribution is calculated using implied i.e. derived market values (e.g. derived volatility of a financial instrument is volatility calculated on the basis of market price of that instrument using a specific valuation model);

97) *actual distribution* means a distribution of market values of transactions or exposures at a future time period where the distribution is

calculated using historic or realised values (e.g. historic volatility of a financial instrument is volatility calculated using past prices or rate changes);

98) *current exposure* means the positive value of a transaction or a portfolio of transactions within a netting set (if the value is negative, current exposure is zero) that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in the event of bankruptcy of that counterparty;

99) *peak exposure* means a high percentile of the distribution of exposures at a particular future date before the maturity date of the longest transaction in the netting set;

100) *expected exposure* (hereinafter: EE) means the average of the distribution of exposures at a particular future date before the longest maturity transaction in the netting set matures;

101) *effective expected exposure* (hereinafter: Effective EE) at a specific date means the maximum EE that occurs at that date or the maximum EE at any prior date, whichever is the higher;

102) *expected positive exposure* (hereinafter: EPE) means the weighted average over time of EE, where the weights are the proportion of an individual EE in the sum of all individual EE of the entire time interval; when calculating the minimum capital requirement, banks shall take the average over the first year or, if all the contracts within the netting set mature within less than one year, over the time period until the contract with the longest maturity in the netting set has matured;

103) *effective expected positive exposure* (hereinafter: Effective EPE) means the weighted average of Effective EE over a specific period (where the weights are the proportion of an individual Effective EE in the sum of all individual Effective EE of the entire time interval); when calculating the minimum capital requirement, the average is taken over the first year or, if all the contracts within the netting set mature within less than one year, over the time period of the longest maturity contract in the netting set;

104) *credit valuation adjustment* (hereinafter CVA) means an adjustment to the mid-market valuation of the portfolio of transactions with a counterparty; this adjustment reflects the market value of the credit risk of that counterparty to the bank, but does not reflect the market value of the credit risk of the bank to the counterparty;

105) *payment leg*, in case of OTC derivative transactions with a linear risk profile, means a part of the transaction which is settled by a cash payment; in the case of transactions that stipulate the exchange of payment against payment, those two payment legs shall consist of the contractually agreed gross payments, including the notional amount of the transaction;

106) *rollover risk* means the amount by which EPE is understated when future transactions with a counterparty re expected to be conducted on an ongoing basis; the additional exposure generated by those future transactions is not included in the calculation of EPE;

107) *general wrong-way risk* means a risk arising when the PD by a counterparty is positively correlated with general market risk factors;

108) *specific wrong-way risk* means a risk arising when the exposure to a specific counterparty is positively correlated with the counterparty's PD due to the nature of the transactions with the counterparty; a bank shall be considered to be exposed to this risk if the future exposure to a specific counterparty is expected to be high when the counterparty's PD is also high;

109) *central counterparty* (hereinafter: CCP) means a legal person which, due to its position towards the counterparties to the contracts traded on one or more financial markets, becomes the buyer to every seller and the seller to every buyer;

110) *qualifying central counterparty* (hereinafter: QCCP) means a CCP that has been granted an operating licence or has been recognised under the relevant EU regulations;

111) *default fund* means a fund established by a CCP under the relevant EU regulations;

112) *clearing member* means a legal person which closes sales contracts with a CCP and which is responsible for discharging the financial obligations arising from those contracts;

113) *unified management* means management between a bank and an legal person based on a contract concluded, or provisions in the articles of association of those persons, or on account of the participation of the majority of the bank's managing bodies in the managing bodies of those persons which are not mutually connected by means of a significant or controlling participation;

114) *credit valuation adjustment risk* (CVA risk*)* means a risk of loss arising from a change in the amount of the CVA due to the change in the credit margin of the other counterparty, on account of a change in the counterparty's credit quality;

115) *position risk of debt securities* means a risk of the change in the price of these securities and comprises the specific and general position risk;

116) *specific position risk of debt securities* means a risk of the change in the price of these securities due to factors relating to its issuer or the issuer of a debt security that is the subject matter of a contract (for financial derivatives);

117) *general position risk of debt securities* means a risk of the change in the price of these securities due to changes in the general level of interest rates;

118) *position risk of equity instruments* means a risk of the change in the price of these equity instruments and comprises specific and general position risk;

119) *specific position risk of equity instruments* means a risk of the change in the price of these equity instruments due to factors relating to its issuer or the issuer of an equity instrument that is the subject matter of a contract (for financial derivatives);

120) *general position risk of equity instruments* means a risk of the change in the price of these equity instruments due to changes in the general level of the prices of those equity instruments;

121) *foreign exchange risk* means a risk of the possibility of negative effects on a bank's financial result and capital due to changes in the exchange rate; a bank is exposed to this risk on account of items in the non-trading and trading book;

122) *large financial sector entity* means any legal person organised under relevant regulations governing the operation of such persons and the supervision of such operations, and whose assets, calculated on an individual or consolidated basis, are greater than or equal to a RSD 8,400,000,000,000 threshold, using the most recent audited financial statement or consolidated financial statement in order to determine asset size.

Chapter II
CAPITAL ADEQUACY RATIOS

3. A bank shall calculate the following ratios:

1) the Common Equity Tier 1 capital ratio, which is the Common Equity Tier 1 capital of the bank expressed as a percentage of the total risk exposure amount;

2) the Tier 1 capital ratio, which is the Tier 1 capital of the bank expressed as a percentage of the total risk exposure amount;

3) the total capital ratio, which is the capital of the bank expressed as a percentage of the total risk exposure amount.

Total risk exposure amount referred to in paragraph 1 of this Section shall be calculated as the sum of the following:

– total risk-weighted exposure amounts for credit risk, counterparty credit risk, dilution risk in respect of all business activities of a bank, excluding activities from the trading book business of the bank, calculated in the manner stipulated in Chapter IV of this Decision, and the settlement/delivery risk to free deliveries calculated in the manner stipulated in Section 299 of this Decision to all business activities of the bank;

– capital requirements for position risk for trading book business, calculated in the manner stipulated in Chapter VII of this Decision, and for large exposures, calculated in the manner stipulated by the decision governing risk management by banks, multiplied by the reciprocal value of capital adequacy ratios from paragraph 3, item 3) of this Section, or Section 5 of this Decision;

– capital requirements for foreign exchange risk, calculated in the manner stipulated in Chapter VII of this Decision, for settlement/delivery risk, calculated in the manner stipulated in Chapter V of this Decision, excluding the settlement/delivery risk to free deliveries, and capital requirements for commodity risk, calculated in the manner stipulated in Chapter VII of this Decision, in respect of all business activities of the bank, multiplied by the reciprocal value of capital adequacy ratios from paragraph 3, item 3) of this Section, or Section 5 of this Decision;

– capital requirements for CVA risk for all business activities of the bank, calculated in the manner stipulated in Chapter VI of this Decision, multiplied by the reciprocal value of capital adequacy ratios from paragraph 3, item 3) of this Section, or Section 5 of this Decision;

– capital requirements for operational risk, calculated in the manner stipulated in Chapter VIII of this Decision, to all business activities of the bank, multiplied by the reciprocal value of capital adequacy ratios from paragraph 3, item 3) of this Section, or Section 5 of this Decision;

– the risk-weighted exposure amounts for counterparty credit risk, calculated in the manner stipulated in Chapter IV of this Decision, arising from the trading book business for contracts listed in Annex 1 of this Decision and credit derivatives, repurchase transactions, securities or commodities lending or borrowing transactions, margin lending transactions based on securities or commodities and long settlement transactions.

A bank shall maintain ratios referred to in paragraph 1 of this Section at the levels above the following:

1) 4.5%, for Common Equity Tier 1 capital ratio;
2) 6%, for Tier 1 capital ratio;
3) 8%, for capital ratio.

4. In its operation, the bank shall ensure that the amount of its capital is never below the dinar equivalent of EUR 10,000,000 at the official middle exchange rate of the National Bank of Serbia on the day the calculation is made.

In addition to the condition laid down in paragraph 1 of this Section, a bank shall maintain its capital at all times at the level necessary for the coverage of all risks to which the bank is or may be exposed in its operation, at least in the amount necessary for maintaining the capital adequacy ratios referred to in Section 3, paragraph 3 of this Decision, or increased ratios – if the National Bank of Serbia, in accordance with Section 5 of this Decision, has set capital adequacy ratios for a bank higher than the prescribed ones.

5. The National Bank of Serbia may set higher capital adequacy ratios for a bank than the ones prescribed in Section 3, paragraph 3 of this Decision if, on the basis of prudential supervision of the bank's operation, it establishes that this is necessary for the safe and sound operation of the bank, or for the fulfilment of obligations to its creditors.

The National Bank of Serbia shall determine that a higher value of capital adequacy ratios of a bank is necessary and shall determine the amount of the increase by adopting a decision based on the following:

– individual evaluations of the business model, financing model and the bank's overall risk profile;

– evaluation of whether a bank has ensured that it maintains, at all times, the level and structure of capital enabling it to cover all risks the bank is or may be exposed to in its operation under the business model, financing model and the bank's overall risk profile;

– evaluation of the manner in which the risks and weaknesses of the business model, financing model and the bank's overall risk profile, identified in the supervision process, are covered, directly or indirectly, by additional capital requirements determined by the evaluation of the internal capital adequacy assessment process;

– evaluation of the effects of other orders and measures imposed on the bank regarding the risks and weaknesses of the business model, financing model and the bank's overall risk profile identified in the supervision process.

In addition to maintaining capital adequacy ratios as laid down in paragraph 2 of this Section, the bank shall maintain capital adequacy ratios referred to in this paragraph in a manner which enables the bank to cover the combined buffer requirements in accordance with Chapter IX of this Decision.

Chapter III

CAPITAL OF THE BANK

6. The capital of the bank shall be the sum of its Tier 1 capital and Tier 2 capital; Tier 1 capital of the bank is the sum of Common Equity Tier 1 capital and Additional Tier 1 capital.

Part 1
Common Equity Tier 1 capital
Elements of Common Equity Tier 1 capital

7. Common Equity Tier 1 capital of a bank is the sum of the following elements, corrected by regulatory adjustments referred to in Sections 11 and 12 of this Decision, less deductibles referred to in Section 13 of this Decision:

1) shares and other capital instruments which fulfil the requirements from Section 8 of this Decision (hereinafter: Common Equity Tier 1 instruments);
2) relevant share premium with the Common Equity Tier 1 instruments, i.e. the amount paid above par value of those instruments;
3) profit of the bank;
4) revaluation reserves and other unrealised gain;
5) reserves from profit and other reserves of the bank, except reserves under item 6) of this paragraph;
6) funds for general banking risk.

Elements referred to in paragraph 1, items 3) to 6) of this Section shall be included in Common Equity Tier 1 capital only when they are available to the bank for unconditional, unrestricted and immediate use to cover risks or losses as soon as these occur.

8. The Common Equity Tier 1 instruments shall be included in the calculation of a bank's Common Equity Tier 1 capital if the following conditions are met:

1) the instruments are issued directly by the bank;
2) the instruments are paid up and their purchase is not funded directly or indirectly by the bank;
3) the instruments qualify as capital within the meaning of decisions by the National Bank of Serbia governing the Charter of Accounts for banks and the contents of the Charter of Accounts for banks, and/or forms and the contents of items in financial statement forms for banks, as well as for the purpose of determining the bank's balance sheet insolvency, in accordance with the law regulating bankruptcy and liquidation of banks and insurance undertakings;
4) the instruments are perpetual;
5) the total nominal value and/or the principal amount of the instruments may not be reduced or repaid, except in the case of capital write down and conversion, or implementation of resolution tools under the law governing banks, in the case of bankruptcy or liquidation of the bank under the law governing bankruptcy and liquidation of banks and insurance undertakings, or in the case of reduced value of Common Equity Tier 1 instruments based on the bank's decision, with prior consent of the National Bank of Serbia, in accordance with Section 32 of this Decision;
6) the provisions of the bank's internal acts and the decision on issuing the instruments do not indicate explicitly or implicitly that the nominal value of

those instruments might be reduced or that the principal amount might be repaid, except in the case of capital write down and conversion, or implementation of resolution tools under the law governing banks, or in the case of bankruptcy or liquidation of the bank under the law governing bankruptcy and liquidation of banks, and the bank does not otherwise provide such an indication prior to or at the issuance of such instruments;

7) the instruments meet the following conditions as regards distributions:

– there is no preferential distribution treatment regarding the order of distribution payments in relation to the Common Equity Tier 1 instruments, and the provisions of the bank's internal acts and the decision on issuing the instruments do not provide preferential rights to the payment of distributions under these instruments; the preferential treatment and preferential rights do not include the possibility of multiple payouts within distributions for those Common Equity Tier 1 instruments with fewer or no voting rights;

– distributions to holders of the instruments may be paid only out of distributable items;

– provisions of the bank's internal acts or the decision on issuing the instruments do not include a cap on the maximum level of distributions, or, in the case of the instrument paying a dividend multiple, the amount of the distribution arising from such dividend does not result in a distribution that causes a disproportionate drag on the bank's capital;

– the level of distributions is not determined on the basis of the amount for which the instruments were purchased at issuance;

– provisions of the bank's internal acts and the decision on issuing the instruments do not include any obligation for the bank to make distributions to their holders, and the bank is not otherwise subject to such an obligation;

– non-payment of distributions does not constitute an event of default of the bank;

– the cancellation of distributions imposes no restrictions on the bank;

8) compared to all other capital instruments issued by the bank, these instruments absorb the first and proportionately the greatest share of losses, and each instrument absorbs losses to the same degree as all other Common Equity Tier 1 instruments, notwithstanding the possibility of a write down of the principal amount of Additional Tier 1 and Tier 2 instruments;

9) in the event of bankruptcy or liquidation of the bank, the owners of these instruments rank below the claims of all other bank creditors and owners of other capital instruments, and entitle their owners to a claim on the residual assets of the bank which is proportionate to the number (*amount*) of such instruments issued and is not fixed or subject to a cap;

10) the Common Equity Tier 1 instruments are neither secured nor subject to a guarantee that enhances the seniority of the claim under these instruments and is issued by the bank, its subsidiary, a bank's parent company and its subsidiaries, a member of the bank's banking group or a person associated with these persons;

11) the Common Equity Tier 1 instruments are not subject to any arrangement that enhances the seniority of claims under these instruments in the event of bankruptcy or liquidation.

The National Bank of Serbia shall prescribe by guidelines the cases of direct or indirect financing set out in paragraph 1, item 2) of this Section, when it is deemed that there is preferential treatment referred to in item 7), indent one of that Section, and when the amount of the distribution under a dividend multiple does not result in a distribution that causes a disproportionate drag on the bank's capital for the purposes of indent three of the said provision.

9. If a bank's Common Equity Tier 1 instruments no longer meet the conditions set out in Section 8 of this Decision, the bank shall without delay exclude such instruments, as well as the share premium accounts that relate to that instrument, from the calculation of its Common Equity Tier 1 capital, and shall immediately notify the National Bank of Serbia thereof.

10. Profit of the bank referred to in Section 7, paragraph 1, item 3) of this Decision included in Common Equity Tier 1 capital shall be made up of retained earnings from preceding years free of any future liabilities, to be allocated to Common Equity Tier 1 capital according to the decision of the bank's assembly.

Pursuant to Section 7, paragraph 1, item 3) of this Decision, a bank may include in Common Equity Tier 1 capital the interim profit or profit from the preceding year which the bank's assembly still has not decided to allocate to Common Equity Tier 1 capital – with prior consent of the National Bank of Serbia.

The National Bank of Serbia shall grant its consent referred to in paragraph 2 of this Section if, based on the submitted documents, it determines that the following conditions have been met:

– the amount of profit is reduced by the projected amount of income tax, liabilities for dividends and all other liabilities payable from profit (other participations in profit distribution, all liabilities or circumstances that occurred during the reporting period and are likely to lead to a reduction in the bank's profit, regarding which the National Bank of Serbia determined that not all of the necessary valuation adjustments were conducted, such as additional value adjustments referred to in Section 12, paragraph 5 of this Decision, or provisions) which can be predicted at the moment of inclusion of the profit in Common Equity Tier 1 capital;

– an external auditor authorised to audit the bank's financial statements has confirmed that the amount of profit was determined in

accordance with the IFRS/IAS and the law governing accounting and auditing.

The National Bank of Serbia shall prescribe by guidelines the manner of calculating the interim profit or profit from the preceding year, and of calculating the projected amount of liabilities for dividends and other liabilities payable from profit by which the amount of interim profit or profit from the preceding year is reduced.

Regulatory adjustments

11. When calculating the value of elements of its capital, a bank shall exclude from any element of its capital any increase in its equity under the IFRS/IAS that results from the securitisation of exposures, including the following:

1) an increase in capital associated with future margin income that results in a gain on the sale for the bank;
2) where the bank is the originator of a securitisation, net gains that arise from the capitalisation of future income from the securitised exposures that provide credit enhancement to positions in the securitisation.

A gain on the sale referred to in paragraph 1, item 1) of this Section is any recognised gain on the sale for the bank which leads to an increase in any element of the capital and is connected with future margin income that arises from the sale of securitised exposures once they cease to be recognised in the bank's balance sheet as part of the securitisation.

The recognised gain on the sale referred to in paragraph 2 of this Section shall be determined as the difference between the following amounts:

– net value of assets received, including every newly acquired asset less every other asset given or obligation undertaken, and
– accounting value of securitised exposures or a portion of securitised exposures which ceased to be recognised in the bank's balance sheet.

12. The bank shall not include the following items in its capital:

1) the fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value, including projected cash flows;
2) gains or losses on liabilities of the bank valued at fair value, that result from changes in the bank's credit quality;

3) gains and losses on derivative liabilities valued at fair value, that result from the bank's credit risk; the bank shall not offset these gains and losses with those arising from its counterparty credit risk.

Without prejudice to paragraph 1, item 2) of this Section, banks may include in the calculation of capital the amount of gains and losses on their liabilities valued at fair value, arising from changes in the bank's own credit standing, provided these liabilities are in the form of covered bonds, and if the following conditions are met:

1) the changes in the value of the bank's assets and liabilities are due to the same changes in the bank's own credit standing;
2) there is a close correspondence between the value of the covered bonds and the value of the bank's assets;
3) it is possible to redeem the mortgage loans by buying back the covered bonds financing the mortgage loans at market or nominal value.

For the purposes of paragraph 2, item 2) of this Section, the National Bank of Serbia shall prescribe by guidelines the manner of determining the degree of the close correspondence between the value of the covered bonds and the value of the bank's assets.

Unrealised gains or losses on assets or liabilities valued at fair value, except gains and losses referred to in paragraph 1 of this Section, shall be included in the calculation of capital.

When calculating the bank's capital, the conditions set out in Sections 315 to 318 of this Decision shall be applied to all assets of the bank valued at fair value, and the bank shall remove from its Common Equity Tier 1 capital the amount of all necessary additional value adjustments determined in accordance with those Sections.

Deductibles from Common Equity Tier 1 capital

13. Deductibles from Common Equity Tier 1 capital shall be:

1) losses from the current year and preceding years, as well as unrealised losses;
2) intangible assets, including goodwill, reduced by the amount of deferred tax liabilities that would be extinguished if the intangible assets became impaired or were derecognised under the IFRS/IAS;
3) deferred tax assets that rely on the bank's future profitability in accordance with regulations;

4) the negative amount calculated in accordance with Section 134 of this Decision – for banks that have obtained the consent of the National Bank of Serbia to apply the IRB Approach;

5) defined benefit pension fund assets on the balance sheet of the bank;

6) direct, indirect and synthetic holdings by a bank of own Common Equity Tier 1 instruments, including own Common Equity Tier 1 instruments that a bank is under an actual or contingent obligation to purchase by virtue of an existing contractual obligation;

7) direct, indirect and synthetic holdings of the Common Equity Tier 1 instruments of financial sector entities where those entities have a reciprocal cross holding with the bank, and which have been designed to inflate artificially the capital of the bank;

8) the applicable amount of direct, indirect and synthetic holdings by the bank of the Common Equity Tier 1 instruments of financial sector entities where the bank does not have a significant investment in those entities, in accordance with Sections 19 and 20 of this Decision;

9) the applicable amount of direct, indirect and synthetic holdings by the bank of the Common Equity Tier 1 instruments of financial sector entities where the bank has a significant investment in those entities, in accordance with Section 19 of this Decision;

10) the amount of items required to be deducted from the bank's Additional Tier 1 items that exceeds the Additional Tier 1 capital of the bank;

11) the exposure amount of the following items which qualify for a risk weight of 1,250%, where the bank deducts that exposure amount from the amount of Common Equity Tier 1 items as an alternative to applying a risk weight of 1,250%:

– holdings outside the financial sector exceeding 10% of the capital of those non-financial sector entities, and/or holdings which enable an effective exertion of considerable influence on the management of a legal person or the business policy of that legal person, in accordance with paragraph 6 of this Section,

– securitisation positions, in accordance with Section 201, paragraph 1, item 2), Section 202, paragraph 1, item 2) and Section 234 of this Decision,

– free deliveries, if the counterparty did not settle its obligation within four working days after the agreed delivery/payment date, in accordance with Section 299 of this Decision,

– positions in a basket for which a bank cannot determine the risk weight under the IRB Approach, in accordance with Section 121 of this Decision,

– equity exposures under an internal models approach, in accordance with Section 127 of this Decision;

12) any tax charge relating to Common Equity Tier 1 items foreseeable at the moment of its calculation, except where the bank suitably adjusts the

amount of Common Equity Tier 1 items insofar as such tax charges reduce the amount up to which those items may be used to cover risks or losses;

13) gross amount of receivables from the borrower – natural person (other than a farmer or an entrepreneur) arising from extended consumer, cash or other loans disclosed in accounts 102, 107 and 108 in accordance with the decision prescribing the Chart of Accounts and contents of accounts in the Chart of Accounts for Banks where the level of the borrower's debt-to-income ratio before loan approval was higher than the percentage defined in accordance with the decision governing the classification of bank balance sheet assets and off-balance sheet items or where this percentage will be higher due to loan approval. This deductible shall be applied regardless of whether following the loan approval the level of the borrower's debt-to-income ratio has dropped below the said percentage.

14) gross amount of receivables from the borrower – natural person (other than a farmer or an entrepreneur) arising from extended consumer, cash or other loans, except loans from item 15) of this paragraph, disclosed in accounts 102, 107 and 108 in accordance with the decision in item 13) of this paragraph and whose agreed maturity is:

– longer than 2920 days – if the loans were approved in the period from 1 January until 31 December 2019,

– longer than 2555 days – if the loans were approved in the period from 1 January until 31 December 2020,

– longer than 2190 days – if the loans were approved as of 1 January 2021;

15) gross amount of receivables from the borrower – natural person (other than a farmer or an entrepreneur) arising from consumer loans approved for the purchase of motor vehicles, disclosed in account 102 in accordance with the decision in item 13) of this paragraph, whose agreed maturity is longer than 2920 days – if these loans were approved after 1 January 2019;

16) the amount of reserve for estimated losses calculated in accordance with NBS regulations, if these regulations stipulate the obligation to allocate this reserve;

17) the total amount of exposure under FX-indexed dinar loans and FX loans referred to in Section 13a, paragraph 1 hereof in respect of which the percentage from that paragraph has been exceeded, and/or the total amount of bank's exposure under FX-indexed dinar loans and FX loans referred to in Section 13a, paragraph 2 hereof in respect of which the percentage from that paragraph has been exceeded.

For the purpose of calculating Common Equity Tier 1 capital during the year, a bank shall determine the profit/loss at the end of each maintenance period and deduct all losses from Common Equity Tier 1 capital as they are incurred, in accordance with paragraph 1, item 1) of this Section.

Paragraph 2 of this Section shall also apply when determining deductibles from Common Equity Tier 1 capital in the form of unrealised losses.

For the purposes of this Decision, a significant investment of a bank in a financial sector entity shall arise where any of the following conditions is met:

1) the bank owns more than 10% of the Common Equity Tier 1 instruments issued by that entity;
2) the bank has close links with that entity under the law governing banks, and the bank holds Common Equity Tier 1 instruments issued by that entity;
3) the bank holds Common Equity Tier 1 instruments issued by that entity and the entity is not included in consolidation for the purposes of supervision by the National Bank of Serbia on a consolidated basis, but is included in consolidation under the law governing accounting.

The calculation of holdings referred to in paragraph 1, items 8) and 9) of this Section shall exclude underwriting positions held for five working days or fewer.

If the bank does not deduct the holdings referred to in item 11), indent one of this Section from Common Equity Tier 1 capital, it shall apply a risk weight of 1,250% to exposures under such holdings.

For the purposes of paragraph 6 of this Section, the risk weight shall be the greater of the following:
– the total amount of individual holdings referred to in item 11), indent one of this Section in excess of 15% of the eligible capital of the bank, or
– the total amount of those holdings that exceed 60% of the eligible capital of the bank.

For the purposes of this Section, eligible capital of a bank means the sum of the bank's Tier 1 capital without applying the deduction from paragraph 1, item 11), indent one of this Section, and Tier 2 capital of the bank that is equal to or less than one third of Tier 1 capital.

The National Bank of Serbia shall prescribe by guidelines the manner of calculating deductibles referred to in paragraph 1, item 5), items 6) to 9) and item 12) of this Section.

13a. The deductible referred to in Section 13, paragraph 1, item 17) hereof shall apply if the bank's exposures under FX-indexed dinar loans and FX loans extended as of 1 July 2023 to debtors from the non-financial and non-government sector exceed 50% of the amount of the bank's exposure

under dinar loans (including FX-indexed loans) and FX loans, extended to those debtors as of 1 July 2023.

Exceptionally from paragraph 1 hereof, the deductible from that paragraph shall apply if the bank's exposures under FX-indexed dinar loans and FX loans extended as of 1 July 2023 to debtors from the non-financial and non-government sector exceed:

1) 71% of the amount of the bank's exposure under dinar loans (including FX-indexed loans) and FX loans, extended to those debtors as of 1 July 2023 – in the period from 1 January to 31 December 2025;
2) 64% of the amount of the bank's exposure under dinar loans (including FX-indexed loans) and FX loans, extended to those debtors as of 1 July 2023 – in the period from 1 January to 31 December 2026;
3) 57% of the amount of the bank's exposure under dinar loans (including FX-indexed loans) and FX loans, extended to those debtors as of 1 July 2023 – in the period from 1 January to 31 December 2027.

FX-indexed dinar loans from paragraphs 1 and 2 hereof shall include the sum of the appertaining portions of the balance in accounts 100, 103, 105, 107 and 108 determined in accordance with the decision prescribing the chart of accounts and the content of accounts in the chart of accounts for banks, reduced by the appertaining portion of the balance in account 105 which relates to investment loans extended for the procurement of fixed assets.

Dinar loans referred to in paragraphs 1 and 2 hereof shall include the sum of the appertaining portions of the balance in accounts 100, 103, 105, 107 and 108 determined in accordance with the decision referred to in paragraph 3 hereof, reduced by the portion of the balance in account 105 which relates to investment loans extended for the procurement of fixed assets.

FX loans referred to in paragraphs 1 and 2 hereof shall include the sum of the appertaining portion of the balance in account 200 which relates to loans for the payment of imports of services from abroad and the appertaining portion of the balance in accounts 203 and 207. The accounts from this paragraph are determined in accordance with the decision from paragraph 3 hereof.

The non-financial and non-government sector from paragraphs 1 and 2 hereof shall include the public non-financial sector, sector of companies, sector of entrepreneurs, foreign legal persons (except banks), private households with employed persons and registered agricultural producers, and the sector of other legal entities in accordance with the decision governing the

collection, processing and submission of data on the balance and structure of accounts from the chart of accounts.

The loans referred to in paragraphs 3 to 5 of this Section shall be recognised at gross principle, and/or before a reduction for allowances for impairment.

The loans referred to in paragraphs 3 to 5 hereof shall not include:

1) receivables restructured in accordance with the decision governing the classification of bank balance sheet assets and off-balance sheet items, if the restructuring is carried out in respect of loans extended before 1 July 2023;

2) bank's exposures under specialised lending referred to in Section 74, paragraph 3, items 1) and 2) hereof if those exposures have the characteristics prescribed in paragraph 2 of that Section.

A bank shall reduce the amount of exposure under loans referred to in paragraphs 3 to 5 hereof by the amount secured by prime collateral in the form of a cash deposit with a bank, and another prime collateral within the meaning of the decision governing the classification of bank balance sheet assets and off-balance sheet items if their issuer is the person to whom, in accordance with this decision, the credit risk weight of 0% is assigned – if the conditions for their classification in category A have been fulfilled in accordance with provisions of that decision.

13b. The deductible referred to in Section 13, paragraph 1, item 14) hereof shall be reduced by the amount of receivables under the loans for the refinancing of the loans from that provision which were approved until 18 March 2020, if the following conditions have been met:

1) the refinancing loan was approved from 19 March until 31 December 2020 and the agreed maturity of the loan is not longer than 3285 days, or the refinancing loan was approved from 1 January to 31 December 2021 and the agreed maturity of the loan is not longer than 2920 days;

2) the amount of the refinancing loan is not higher than the outstanding amount of the loan being refinanced.

The deductible referred to in Section 13, paragraph 1, item 15) hereof shall be reduced by the amount of receivables under the loans for the refinancing of consumer loans from that provision which were approved until 18 March 2020, under the condition that the refinancing loan was approved from 19 March 2020 to 31 December 2021, that the agreed maturity of the loan is not longer than 3650 days, and that its amount is not higher than the outstanding amount of the loan being refinanced.

The refinancing loan referred to in paragraphs 1 and 2 hereof means a new loan approved by the bank to the debtor to settle a part or the entire amount of the debtor's obligation towards the bank in respect of the loans from those paragraphs.

The deductible referred to in Section 13, paragraph 1, item 13) hereof shall not apply to the receivables under the refinancing loans approved under the conditions from paragraphs 1 and 2 hereof.

The calculation of the deductible referred to in Section 13, paragraph 1, item 14) hereof shall not include the gross amount of receivables under the loan approved from 1 January 2019 until 18 March 2020, in respect of which the maturity date of the last instalment was changed, whereby the agreed maturity of the loan is extended, if the following conditions have been met:

1) the change of the maturity date of the last instalment was agreed from 19 March until 31 December 2020 and the new agreed maturity is not longer than 3285 days or the change of the maturity date of the last instalment was agreed from 1 January to 31 December 2021 and the new agreed maturity is not longer than 2920 days;
2) under the agreement on the loan in respect of which the maturity date of the last instalment was changed, no additional loan amount was approved from 19 March 2020 until the final repayment under that agreement.

The calculation of the deductible referred to in Section 13, paragraph 1, item 15) hereof shall not include the gross amount of receivables under the loan approved from 1 January 2019 to 18 March 2020, in respect of which the maturity date of the last instalment was changed, whereby the agreed maturity of the loan is extended, under the condition that the change of the maturity date of the last instalment was agreed from 19 March 2020 until 31 December 2021, that the new agreed maturity is not longer than 3650 days, and that under the agreement on the loan in respect of which the maturity date of the last instalment was changed, no additional loan amount was approved from 19 March 2020 until the final repayment under that agreement.

The deductible referred to in Section 13, paragraph 1, item 13) hereof shall not apply to the receivables under the loans approved under the conditions from paragraphs 5 and 6 hereof.

In the calculation of the deductibles referred to in Section 13, paragraph 1, items 14) and 15) hereof, the period of the moratorium under the approved loans referred to in those provisions shall not be included in the number of days of the agreed maturity for the purpose of application of those provisions.

The moratorium referred to in paragraph 8 hereof means a suspension of the repayment of obligations in accordance with the decision governing temporary measures for preserving financial system stability in the Republic of Serbia in the conditions of the COVID-19 pandemic.

13c. The deductibles referred to in Section 13, paragraph 1, items 13) to 15) hereof shall not apply to receivables restructured in accordance with the decision governing the classification of bank balance sheet assets and off-balance sheet items, if the following conditions are met:

1) the receivables referred to in this Section have been incurred under loans from Section 13, paragraph 1, items 13) to 15) hereof to which deductibles from those provisions had not been applied;

2) the restructuring is carried out based on the bank's offer, in accordance with its internal acts, or based on a reasoned application of the borrower where the bank has established that there are facts and special circumstances causing a deterioration in the borrower's financial position and affecting his ability to settle liabilities to the bank on time;

3) the restructuring does not increase the outstanding loan amount;

4) the agreed maturity of the loan after the restructuring is not longer than 3285 days for loans from Section 13, paragraph 1, item 14) hereof or longer than 4015 days for loans from item 15) of that paragraph;

5) the receivables have not been restructured earlier in accordance with the provisions of this Section.

The terms of repayment agreed through restructuring set out in paragraph 1 hereof may not be less favourable for the borrower than the initial, and/or previously agreed terms.

14. The amount of deferred tax assets from Section 13, paragraph 1, item 3) of this Decision may be reduced by the amount of the associated deferred tax liabilities of the bank only if the bank has a legally enforceable right under applicable regulations to set off those current tax assets against current tax liabilities, and if the deferred tax assets and deferred tax liabilities relate to taxes levied by the same tax authority and on the same taxable entity.

Associated deferred tax liabilities of the bank used for the purposes of paragraph 1 of this Section do not include deferred tax liabilities that reduce the amount of intangible assets or pension fund assets from Section 13, paragraph 1, items 2) and 5) of this Decision.

For the purposes of paragraph 1 of this Section, the deferred tax assets formed during the year that rely on the bank's future profitability and arise

from temporary differences, but are not deducted from Common Equity Tier 1 capital in accordance with Section 21 of this Decision, or all other deferred tax assets that rely on the bank's future profitability shall be reduced by the amount of any associated deferred tax liabilities referred to in that paragraph in proportion to the share of those funds in total deferred tax assets that rely on future profitability.

15. By way of derogation from Section 13, paragraph 1, item 3) of this Decision, the following items shall not be deducted from capital and shall be included in the calculation of risk-weighted exposures in accordance with Chapter IV, Part 1, or Part 2 of this Decision:

1) overpayments of tax by the bank for the current year;
2) current year losses identified in the bank's tax balance sheet, carried back to previous years that give rise to a claim on the competent tax authority, provided that this is applicable under tax regulations.

Deferred tax assets that do not rely on the future profitability of the bank shall be limited to deferred tax assets arising from temporary differences where all the following conditions are met:

1) they are automatically and mandatorily replaced without delay with a tax credit in the event that the bank discloses a loss in approved financial statements, or in the event of liquidation or bankruptcy of the bank;
2) the bank is able under the applicable national tax law to offset a tax credit referred to in item 1) of this paragraph against any tax liability of the bank or any other corporate included in the same consolidation as the bank for tax purposes under that law or any other legal person included in the consolidation for the purposes of banking group supervision on a consolidated basis, carried out by the National Bank of Serbia;
3) where the amount of tax credits referred to in item 2) of this paragraph exceeds the tax liabilities referred to in that Section, any such excess is replaced without delay with a direct claim on the Republic of Serbia.

The bank shall apply a risk weight of 100% to deferred tax assets where the conditions laid down in paragraph 2 of this Section are met.

16. The amount to be deducted in accordance with Section 13, paragraph 1, item 4) of this Decision shall not be reduced by a rise in the level of deferred tax assets that rely on the future profitability of the bank, or other additional tax effects that could occur if provisions were to rise to the level of expected losses referred to in Chapter IV, Part 2, Subpart 6 of this Decision.

17. For the purposes of Section 13, paragraph 1, item 5) of this Decision, the amount of defined benefit pension fund assets to be deducted from Common Equity Tier 1 capital shall be reduced by the following:

1) the amount of any associated deferred tax liability which could be extinguished if the assets became impaired or were derecognised under the IFRS/IAS;

2) the amount of assets in the defined benefit pension fund which the bank has an unrestricted ability to use.

For the purposes of paragraph 1, item 2) of this Section, a bank shall include such assets in the calculation of risk-weighted exposures in accordance with Chapter IV, Part 1, or Part 2 of this Decision.

18. For the purposes of Section 13, paragraph 1, item 6) of this Decision, banks shall calculate holdings of own Common Equity Tier 1 instruments on the basis of gross long positions subject to the following exceptions:

1) the bank may calculate the amount of holdings of own Common Equity Tier 1 instruments on the basis of the net long position provided that the long and short positions are in the same underlying exposure, and the short positions involve no counterparty risk for the bank; either both the long position and the short position are held in the trading book or both are held in the non-trading book;

2) in the case of investment in own Common Equity Tier 1 instruments included in stock indices, banks shall determine the amount to be deducted from the Common Equity Tier 1 instruments by calculating the underlying exposure to own Common Equity Tier 1 instruments included in those indices;

3) banks may net gross long positions in own Common Equity Tier 1 instruments included in stock indices against short positions in own Common Equity Tier 1 instruments in those indices, including where those short positions involve counterparty risk, provided that the long and short positions are in the same underlying indices and are both held either in the trading book or in the non-trading book.

19. For the purposes of Section 13, paragraph 1, items 7), 8) and 9) of this Decision, holdings of the Common Equity Tier 1 instruments and other capital instruments of financial sector entities are calculated on the basis of gross long positions.

For the purposes of paragraph 1 of this Section, holdings of the elements of Tier 1 capital of insurance undertakings shall be considered holdings of the Common Equity Tier 1 instruments.

By way of derogation from paragraph 1 of this Section, banks may calculate the amount of holdings referred to in Section 13, paragraph 1, items 8) and 9) of this Decision on the basis of the net long position in the same underlying exposure provided that the maturity of the short position matches the maturity of the long position, or has a residual maturity of at least one year; either both the long position and the short position are held in the trading book or both are held in the non-trading book.

For the purposes of paragraph 3 of this Section, the maturity requirements for short positions shall be deemed to be met in respect of long positions even if the bank has the contractual right to sell on a specific future date to the counterparty providing the hedge the long position that is being hedged, and the counterparty is obliged to purchase that long position from the bank on that specific date.

As regards investment in instruments referred to in paragraph 1 of this Section which are included in stock indices, the banks shall determine the amount to be deducted from the Common Equity Tier 1 instruments by calculating the underlying exposure to the capital instruments of the financial sector entities in those indices.

The total amount of gross long positions referred to in paragraph 1 of this Section can be reduced by the portion of the short position in an index that is made up of the same underlying exposure that is being hedged, which short position serves as a hedge for that long position, provided that both positions are held at fair value by the bank, that the long position being hedged and the short position in the index serving as a hedge for that long position are both held either in the trading book or in the non-trading book, and that the short position qualifies as an effective hedge under the internal control processes of the bank.

20. For the purposes of Section 13, paragraph 1, item 8) of this Decision, banks shall calculate the amount to be deducted by multiplying the amount by which the direct, indirect and synthetic investments of the bank in the Common Equity Tier 1, Additional Tier 1 and Tier 2 instruments of financial sector entities in which the bank does not have a significant investment exceed 10% of the corrected Common Equity Tier 1 capital of the bank – by the share, expressed in percentages, of the bank’s direct, indirect and synthetic investments in the Common Equity Tier 1 instruments of those financial sector entities in which the bank does not have a significant investment and total direct, indirect and synthetic investments in capital instruments of those financial sector entities. The calculation shall exclude exposures arising from underwriting positions held for five working days or fewer.

For the purposes of paragraph 1 of this Section, the amount of corrected Common Equity Tier 1 capital shall be calculated by correcting the sum of elements referred to in Section 7 of this Decision by the amount of regulatory adjustments from Sections 11 and 12 of this Decision, when all other unrealised gains or losses on assets or liabilities measured at fair value, except those referred to in those Sections, are included in the calculation of the bank's Common Equity Tier 1 capital and when items referred to in Section 13, paragraph 1, items 1) to 7), item 11), indents two to five, and items 12) to 17) of this Decision are deducted from Common Equity Tier 1 capital, except the amount deducted from Common Equity Tier 1 capital under deferred tax assets which rely on future profitability and arise from temporary differences, taking into account the rules set out in Section 19 of this Decision.

The amount to be deducted pursuant to paragraph 1 of this Section shall be apportioned by the bank across all Common Equity Tier 1 instruments in which the bank has invested, by multiplying that amount with the proportion of the amount of each individual Common Equity Tier 1 instrument held by the bank to the aggregate amount of direct, indirect and synthetic investments by the bank of the Common Equity Tier 1 instruments of financial sector entities in which the bank does not have a significant investment.

The amount of holdings of the Common Equity Tier 1 instruments of financial sector entities in which the bank does not have a significant investment and which is equal to or less than 10% of the corrected Common Equity Tier 1 capital of the bank, referred to in paragraph 2 of this Section, shall not be deducted from Common Equity Tier 1 capital and shall be subject to the applicable risk weight.

Banks shall determine the amount of each Common Equity Tier 1 instrument that is risk weighted pursuant to paragraph 4 of this Section by multiplying the amount of the investment required to be risk weighted pursuant to paragraph 4 of this Section by the proportion of the amount of each Common Equity Tier 1 instrument held by the bank to the aggregate amount of direct, indirect and synthetic investments by the bank of the Common Equity Tier 1 instruments of financial sector entities in which the bank does not have a significant investment

21. In making the deductions under Section 13, paragraph 1, items 3) and 9) of this Decision, banks are not required to deduct the amounts listed in items 1) and 2) of this paragraph from Common Equity Tier 1 capital when those amounts in aggregate are equal to or less than the threshold amount referred to in paragraph 3 of this Section:

1) deferred tax assets that rely on future profitability and arise from temporary differences, and in aggregate are equal to or less than 10% of the bank's Common Equity Tier 1 capital referred to in paragraph 2 of this Section;

2) where a bank has a significant investment in a financial sector entity, the direct, indirect and synthetic investments of that bank in the Common Equity Tier 1 instruments of those entities that in aggregate are equal to or less than 10% of the bank's Common Equity Tier 1 capital referred to in paragraph 2 of this Section.

The amount of a bank's Common Equity Tier 1 capital referred to in paragraph 1 of this Section shall be calculated by adjusting the aggregate amount of elements referred to in Section 7 of this Decision by the amount of regulatory adjustments referred to in Sections 11 and 12 of this Decision, when all other unrealised gains or losses on assets and liabilities measured at fair value, except those referred to in those Sections, are included in the calculation of Common Equity Tier 1 capital, and when deductibles referred to in Section 13, paragraph 1, items 1) to 8), item 11), indents two to five, and items 12 to 17) of this Decision are deducted from Common Equity Tier 1 capital, except the amount deducted from Common Equity Tier 1 capital under deferred tax assets that rely on future profitability and arise from temporary differences.

For the purposes of paragraph 1 of this Section, the threshold amount shall be the residual amount of Common Equity Tier 1 items after applying regulatory adjustments and deductions in Sections 11 to 13 of this Decision in full and without applying the threshold exemptions specified in this Section – multiplied by 17.65%.

For the purposes of this Section, a bank shall determine the proportion of deferred tax assets in the total amount of items that is not required to be deducted by dividing the amount specified in item 1) of this paragraph by the amount specified in item 2) of this paragraph:

1) the amount of deferred tax assets that are dependent on future profitability and arise from temporary differences, and in aggregate are equal to or less than 10% of the Common Equity Tier 1 items of the bank;

2) the sum of the amount referred to in item 1) of this paragraph and the amount of direct, indirect and synthetic holdings by the bank of capital instruments of financial sector entities in which the bank has a significant investment, which in aggregate are equal to or less than 10% of the Common Equity Tier 1 items of the bank.

The proportion of significant investments in the total amount of items that are not required to be deducted, pursuant to paragraph 1 of this Section, is equal to one minus the proportion referred to in paragraph 4 of this Section.

The amount of the items that are not deducted pursuant to paragraph 1 of this Section shall be risk weighted at 250% by the bank.

Part 2
Additional Tier 1 capital

Elements of Additional Tier 1 capital

22. Additional Tier 1 capital of the bank shall consist of the sum of the following elements, less deductibles referred to in Section 26 of this Decision:

1) shares and other capital instruments which meet the conditions set out in Section 23 of this Decision (hereinafter: Additional Tier 1 instruments);
2) relevant share premium with the instruments referred to in item 1) of this Section, i.e. the amount paid above par value of those instruments.

The instruments referred to in paragraph 1, item 1) of this Section which the bank includes in the calculation of its Additional Tier 1 capital cannot be at the same time included in the calculation of the bank's Common Equity Tier 1 or Tier 2 capital.

23. The Additional Tier 1 instruments shall be included in the calculation on Additional Tier 1 capital provided that they meet the following conditions:

1) the instruments are paid up and the purchase is not funded directly or indirectly by the bank;
2) the instruments are not purchased by the bank or its subsidiaries under the law governing banks;
3) in the event of bankruptcy of the bank, the right of the owners of instruments to participation in the distribution of bankruptcy estate is subordinate to the right of the owners of Tier 2 instruments;
4) the instruments are neither secured nor subject to a guarantee that enhances the seniority of the claims by the bank, its subsidiary, the bank's parent company or its subsidiaries, a member of the bank's banking group or other person associated with these persons;
5) the instruments are not subject to any arrangement that enhances the seniority of the claim under the instruments in bankruptcy or liquidation;
6) the instruments are perpetual and the provisions of the bank's internal acts and the decision on issuing the instruments include no incentive for the bank to redeem them;

7) where the instruments include call options, the option to call may be exercised at the sole discretion of the issuer;

8) the nominal value and/or the principal amount of the instruments may be reduced, the instruments may be redeemed or repaid only with prior consent of the National Bank of Serbia in accordance with Section 32 of this Decision, and not before five years after the date of issuance except where the conditions laid down in paragraph 7 of that Section are met;

9) the provisions of the bank's internal acts and the decision on issuing the instruments do not indicate explicitly or implicitly that the nominal value and/or the principal amount would or might be reduced, or the instrument redeemed or repaid, and the bank does not provide such an indication in any other way before the instruments have been issued, except in the case of capital write down or conversion, or resolution tools in accordance with the law governing banks, or in the event of bankruptcy or liquidation of the bank, or on the basis of a decision by the bank referred to in item 8) of this paragraph, with prior consent of the National Bank of Serbia;

10) the bank does not indicate in any way that the National Bank of Serbia would consent to a request to reduce the nominal value and/or the principal amount, or to redeem or repay the instrument;

11) distributions under the instruments meet the following conditions:

– distribution to holders of the instruments is paid out only out of the available distributable items;

– the level of distributions does not depend on the credit standing of the bank or its parent company;

– the provisions of the bank's internal acts and the decision on issuing the instruments give the bank full discretion at all times to cancel the distribution on the instruments for an unlimited period and on a non-cumulative basis, and the bank may use such cancelled payments without restriction to meet its obligations;

– the cancellation of distributions does not constitute an event of default of the bank;

– the cancellation of distributions entails no consequences for the bank;

12) the instruments are not relevant for the purpose of determining the amount of assets and liabilities of the bank when determining the fulfilment of conditions for initiating a bankruptcy procedure at the bank;

13) the provisions of the bank's internal acts and the decision on issuing the instruments require that, upon the occurrence of a trigger event, the nominal value and/or the principal amount of the instruments be written down on a permanent or temporary basis, in part or in whole, or that the instruments be converted to Common Equity Tier 1 instruments;

14) the provisions of the bank's internal acts and the decision on issuing the instruments include no feature that could hinder the recapitalisation of the bank, including provisions requiring the bank to pay compensation to current holders of capital instruments in case it issues a new capital instrument;

15) where the instruments are not issued directly by a bank, the instruments shall be issued through a legal person that is, together with the bank, included in the consolidation for the purposes of banking group supervision by the National Bank of Serbia on a consolidated basis, and the proceeds from the issuance shall be available to the bank immediately and without limitation, for the purposes of the conditions set out in this paragraph.

The conditions set out in paragraph 1, item 11), indent five, and item 14) of this Section shall be deemed unfulfilled, inter alia, if the provisions of the bank's internal acts and the decision on issuing the instruments prescribe one of the following requirements for the bank:

1) distributions on the instruments are made in the event of a distribution being made on an instrument that ranks to the same degree as, or more junior than, a Common Equity Tier 1 instrument;
2) payment of distributions on Common Equity Tier 1 instruments or other Additional Tier 1 or Tier 2 instruments is cancelled in the event that distributions are not made on those Additional Tier 1 instruments;
3) the payment of interest or dividend is substituted by a payment in any other form.

The National Bank of Serbia shall prescribe by guidelines the manner of implementing paragraph 1, items 1), 6) and 15) of this Section.

24. The trigger event referred to in Section 23, paragraph 1, item 13) shall be deemed to have occurred when the Common Equity Tier 1 capital ratio of the bank referred to in Section 3, paragraph 1, item 1) of this Decision falls below either 5,125% of risk assets, or a level higher than 5,125%, where determined by a bank and specified in the provisions of the bank's internal acts and the decision on issuing the instruments; without delay, the bank shall determine that a trigger event has occurred when an irrevocable obligation arises for the bank to write down the nominal value and/or the principal amount of the Additional Tier 1 instruments, or convert them to Common Equity Tier 1 instruments.

In addition to the event referred to in paragraph 1 of this Section, the bank may define other events as trigger events for the purposes of Section 23, paragraph 1, item 13) of this Decision.

Upon the occurrence of a trigger event, a bank shall write down the Additional Tier 1 instruments or convert them to the Common Equity Tier 1 instruments in the amount required to restore the Common Equity Tier 1 ratio of the bank to 5,125%, or in the full nominal value and/or principal amount of those instruments, whichever is the lower.

Where the provisions of the bank's internal acts and the decision on issuing the instruments require them to be converted into the Common Equity Tier 1 instruments of the bank upon the occurrence of a trigger event, the bank shall ensure that those provisions specify the rate of such conversion and a limit on the permitted amount of conversion, or a range within which the instruments will convert into the Common Equity Tier 1 instruments.

Where the provisions of the bank's internal acts and the decision on issuing the instruments require their nominal value and/or the principal amount to be written down upon the occurrence of a trigger event, the write down shall also reduce the distributions made on the instrument, the amount the bank is required to pay in the event of the call of the instrument, as well as the claim of the holder of the instrument when the write down and conversion are applied, or resolution tools for the purposes of the law governing banks and/or the bankruptcy or liquidation of the bank.

For the purposes of a write down or conversion of an Additional Tier 1 instrument upon the occurrence of a trigger event, the bank shall issue only those instruments that can be included in the calculation of its Common Equity Tier 1 capital.

The amount of Additional Tier 1 instruments included in the calculation of Additional Tier 1 capital is limited to the minimum amount of Common Equity Tier 1 items that would be generated if the nominal value and/or the principal amount of the Additional Tier 1 instruments were fully written down or converted into Common Equity Tier 1 instruments.

When a trigger event occurs, banks shall immediately inform the National Bank of Serbia and the holders of the Additional Tier 1 instruments of such an event, and shall determine the amount of the write down or conversion of these instruments into the Common Equity Tier 1 instruments without delay, but no later than within one month after the trigger event has occurred. The National Bank of Serbia may shorten this deadline upon judging that the amount that needs to be written down or converted has been defined with certainty or that the write down or conversion have to be carried out as soon as possible.

A bank issuing Additional Tier 1 instruments that convert to Common Equity Tier 1 instruments shall ensure that the number of Common Equity Tier 1 instruments, whose issuance has been approved, is at all times sufficient for an efficient conversion of all convertible Additional Tier 1 instruments in case of a trigger event, and shall obtain all necessary authorisations for the conversion by no later than the date of issuance of such instruments; the bank shall maintain at all times the necessary prior authorisations.

The National Bank of Serbia shall prescribe by guidelines the manner of implementing the provisions of the decision relating to the write down of the principal amount of Additional Tier 1 capital upon the occurrence of a trigger event.

25. If an Additional Tier 1 instrument ceases to meet the conditions laid down in Section 23 of this Decision, that instrument and the part of the share premium accounts that relates to that instrument shall be excluded from the calculation of Additional Tier 1 capital without delay.

Deductibles from Additional Tier 1 capital

26. Deductibles from Additional Tier 1 capital shall be:

1) direct, indirect and synthetic holdings by a bank of own Additional Tier 1 instruments, including the instruments that a bank is obliged to purchase as a result of existing contractual obligations;
2) direct, indirect and synthetic holdings by a bank of the Additional Tier 1 instruments of financial sector entities with which the bank has reciprocal cross holdings that have been executed to inflate artificially the capital of the bank;
3) the applicable amount of direct, indirect and synthetic holdings by a bank of the Additional Tier 1 instruments of financial sector entities where the bank does not have a significant investment in those entities;
4) direct, indirect and synthetic holdings by a bank of the Additional Tier 1 instruments of financial sector entities where the bank has a significant investment in those entities, excluding underwriting positions held for five working days or fewer;
5) the amount of items required to be deducted from Tier 2 items that exceed the Tier 2 capital of the bank;
6) any tax charge relating to Additional Tier 1 items foreseeable at the moment of its calculation, except when the bank suitably adjusts the amount of Additional Tier 1 items insofar as such tax charges reduce the amount up to which those items may be applied to cover risks or losses.

For the purposes of paragraph 1, items 1) to 4) of this Section, a bank shall calculate the deductibles on the basis of adequate application of Sections 18 to 20 of this Decision on holdings of the Additional Tier 1 instruments.

The National Bank of Serbia shall prescribe by guidelines the manner of calculating deductibles referred to in paragraph 1, items 1) to 4) and item 6) of this Section.

Part 3
Tier 2 capital

Elements of Tier 2 capital

27. Tier 2 capital of a bank shall be the sum of the following elements, less deductibles referred to in Section 30 of this Decision:

1) shares and other Tier 2 instruments (hereinafter: Tier 2 instruments) and liabilities under subordinated credits and loans (hereinafter: subordinated liabilities), where the conditions laid down in Section 28 of this Decision are met;

2) the relevant share premium accounts related to instruments referred to in item 1) of this paragraph, i.e. the amount paid above par value of those instruments;

3) for banks calculating risk-weighted exposure amounts by applying the Standardised Approach pursuant to Chapter IV, Part 1 of this Decision, general credit risk adjustments, gross of tax effects, of up to 1.25% of risk-weighted exposures for credit risk;

4) for banks calculating such amounts by applying the IRB Approach, with prior consent of the National Bank of Serbia pursuant to Chapter IV, Part 2 of this Decision, positive amounts calculated in accordance with Section 134 of this Decision, gross of tax effects, of up to 0.6% of risk-weighted exposure amounts for credit risk.

Instruments included under paragraph 1, item 1) of this Section, which the bank includes in the calculation of Tier 2, shall not be simultaneously included in the calculation of Common Equity Tier 1 or Additional Tier 1 capital.

28. A bank’s Tier 2 instruments and subordinated liabilities shall be included in the calculation of its Tier 2 capital provided that the following conditions are met:

1) the instruments are issued and fully paid up, or subordinated liabilities are fully paid up;

2) the instruments are not purchased by the bank or its subsidiaries, or the creditor for subordinated liabilities is not a bank or its subsidiaries;

3) the purchase of the instruments or the granting of the subordinated liabilities, as applicable, is not funded directly or indirectly by the bank;

4) the claim on the nominal value and/or the principal amount of the instruments, or the claim on the principal amount of subordinated liabilities, as applicable, is wholly subordinated to claims of all non-subordinated creditors, under the provisions of the bank’s internal acts and the decision on issuing

the instruments, and/or provisions of other acts governing subordinated liabilities;

5) the instruments or subordinated liabilities, as applicable, are neither secured, nor subject to a guarantee issued by the bank, its subsidiary, the bank's parent company or its subsidiaries, a member of the bank's banking group or a person associated with these persons, that enhances the seniority of the claim on these instruments or liabilities;

6) the instruments or subordinated liabilities, as applicable, are not subject to any arrangement that otherwise enhances the seniority of the claim under the instruments or liabilities, as applicable;

7) the instruments or subordinated liabilities, as applicable, have an original maturity of at least five years;

8) the provisions of the bank's internal acts and the decision on issuing the instruments, or the provisions of other acts governing subordinated liabilities, as applicable, do not include any incentive for their principal amount to be redeemed or repaid, as applicable, by the bank prior to their maturity;

9) where the instruments or subordinated liabilities, as applicable, include one or more call options or early repayment options, as applicable, the options are exercisable at the sole discretion of the issuer or debtor, as applicable;

10) the nominal value and/or the principal amount of the instruments, or the principal amount of subordinated liabilities, as applicable, may be reduced or repaid early and the instruments may be called or repaid only where prior consent of the National Bank of Serbia has been obtained in accordance with Section 32 of this Decision, and not before five years after the date of issuance or raising, except where the conditions laid down in paragraph 7 of that Section are met;

11) the provisions of the bank's internal acts and the decision on issuing the instruments, or the provisions of other acts governing subordinated liabilities, as applicable, do not indicate explicitly or implicitly that the instruments or subordinated liabilities, as applicable, would or might be reduced, called or repaid other than in the case of capital write down and conversion, or resolution tools, in accordance with the law governing banks, or in the event of the bankruptcy or liquidation of the bank, and the bank does not otherwise provide such an indication;

12) the provisions of the bank's internal acts and the decision on issuing the instruments, or the provisions of other acts governing subordinated liabilities, as applicable, do not give the holder or the creditor, as applicable, the right to accelerate the future scheduled payment of interest or principal;

13) the level of interest or dividend payments due on the instruments or subordinated liabilities, as applicable, will not be amended on the basis of the credit standing of the bank or its parent company;

14) where the instruments are not issued and the subordinated liability not granted directly by a bank, as applicable, the issuer or the receiver of the funds, as applicable, shall be a legal person included in the consolidation with

the bank, for the purposes of banking group supervision by the National Bank of Serbia on a consolidated basis, and the proceeds on these accounts shall be available to the bank immediately and without limitation, in a manner specified in this paragraph.

The extent to which Tier 2 instruments and/or subordinated liabilities are included in the calculation of Tier 2 capital of a bank during the final five years before the instruments mature is calculated as follows: the quotient of their nominal value and/or the principal amount, on the first day of the final five year period before their maturity and the number of calendar days in that period is multiplied by the number of the remaining calendar days of maturity of the instruments or subordinated liabilities on the day of the calculation.

The National Bank of Serbia shall prescribe by guidelines the manner of implementing paragraph 1 of this Section.

29. Where a bank's Tier 2 instrument or a subordinated liability, as applicable, ceases to meet the conditions laid down in Section 28 of this Decision, that instrument or liability, as applicable, shall be excluded from the calculation of Tier 2 capital without delay.

Deductibles from Tier 2 capital

30. The following shall be deducted from Tier 2 capital:

1) direct, indirect and synthetic holdings by a bank of own Tier 2 instruments and subordinated liabilities, including instruments that the bank is obliged to purchase as a result of existing contractual obligations;

2) direct, indirect and synthetic holdings by the bank of the Tier 2 instruments and subordinated liabilities of financial sector entities with which the bank has reciprocal cross holdings that have been executed to inflate artificially the capital of the bank;

3) the applicable amount of direct, indirect and synthetic holdings of the Tier 2 instruments and subordinated liabilities of financial sector entities where a bank does not have a significant investment in those entities;

4) direct, indirect and synthetic holdings by the bank of the Tier 2 instruments and subordinated liabilities of financial sector entities where the bank has a significant investment in those entities, excluding underwriting positions held for fewer than five working days.

For the purposes of paragraph 1 of this Section, a bank shall calculate the deductibles on the basis of adequate application of Sections 18 to 20 of this Decision to holdings of the Additional Tier 1 instruments and subordinated liabilities referred to in that paragraph.

The National Bank of Serbia shall prescribe by guidelines the manner of calculating deductibles referred to in paragraph 1 of this Section.

Part 4
Inclusion and exclusion of capital instruments

31. A bank shall send an application to obtain prior consent of the National Bank of Serbia if it intends to include items of capital referred to in Section 7, paragraph 1, item 1), Section 22, paragraph 1, item 1) and Section 27, paragraph 1, item 1) of this Decision in the calculation of its Common Equity Tier 1, Additional Tier 1 or Tier 2 capital; the following shall be enclosed with the application:

1) documentation relating to the issuance of these items, as well as other documentation evidencing that the conditions set out in Section 8, paragraph 1, Section 23, paragraph 1, or Section 28, paragraph 1 of this Decision are met;

2) a description of the fulfilment of conditions set out in Section 8, paragraph 1, Section 23, paragraph 1, or Section 28, paragraph 1 of this Decision, with reference to the relevant documentation;

3) a description of the accounting treatment of these items;

4) a calculation of the amount of capital and capital requirements on the last day of the month preceding the month when the application referred to in this paragraph is submitted, without including these items in the calculation;

5) a projected calculation of the amount of capital and capital requirements for the following three years after including these items in the calculation.

A decision of the National Bank of Serbia regarding the application referred to in paragraph 1 of this Section shall be made within 60 days of the day of receiving such application.

If the items referred to in paragraph 1 of this Section grant the bank sole discretion to decide to pay distributions under those items in a form other than cash or another capital instrument, in addition to meeting the conditions set out in Section 8, paragraph 1, Section 23, paragraph 1, or Section 28, paragraph 1 of this Decision, the National Bank of Serbia shall assess whether such sole discretion and/or the form in which the payment of distributions is made, adversely affects the ability of the bank to cancel payments under these elements and/or adversely affects the quality of these elements and their ability to absorb the bank’s losses.

For the purposes of paragraph 1 of this Section, items for which a legal person other than the bank has the discretionary right referred to in

paragraph 3 of this Section shall not be included by the bank in the calculation of its capital.

Banks may use a broad market index as one of the bases for determining the level of distributions on Additional Tier 1 and Tier 2 instruments.

The index referred to in paragraph 5 of this Section shall not apply where the bank is a reference entity in that broad market index, unless it considers movements in that index not to be significantly correlated to the credit standing of the bank or its parent company, of which the bank shall notify the National Bank of Serbia.

The market indices which are used for the purposes of paragraph 5 of this Section shall be reported and disclosed by the bank in documents describing capital instruments or on the bank's website.

The National Bank of Serbia shall prescribe by guidelines the manner of application of the broad market index referred to in paragraph 5 of this Section.

In the event of changes of conditions set out in Section 8, paragraph 1, Section 23, paragraph 1, or Section 28, paragraph 1 of this Decision, the bank shall notify the National Bank of Serbia thereof without delay and submit relevant documentation relating to those changes.

By way of derogation from paragraph 1 of this Section, if it intends to include items referred to in Section 7, paragraph 1, items 4) to 6) and the item referred to in Section 10, paragraph 1 of this Decision in the calculation of Common Equity Tier 1 capital, a bank shall notify the National Bank of Serbia thereof no later than 30 days prior to the inclusion of these items in its calculation of capital, and shall submit the following documentation together with the notification:

1) a decision of the bank's assembly on the inclusion of such item in the calculation of Common Equity Tier 1 capital;

2) a description of the accounting treatment of these items;

3) a calculation of the amount of capital and capital requirements on the last day of the month preceding the month when the notification referred to in this paragraph is submitted, without including these items in the calculation;

4) a projected calculation of the amount of capital and capital requirements for the following three years after including these items in the calculation.

32. A bank shall submit an application to obtain prior consent of the National Bank of Serbia if it intends to reduce the value of the Common Equity Tier 1 items referred to in Section 7, item 1 of this Decision, or if it intends to reduce the value, redeem or repay the Additional Tier 1 or Tier 2 instruments or subordinated liabilities, as applicable, which are included in the calculation of that capital from Section 22, paragraph 1 and Section 27, paragraph 1 of this Decision, prior to the date of their contractual maturity.

The provisions of this Section shall not apply to the acquisition of own shares by the bank in accordance with the law governing banks.

Together with the application for obtaining prior consent of the National Bank of Serbia referred to in paragraph 1 of this Section, a bank shall also submit the following documentation:

1) information on specific actions it intends to implement and reasons for their implementation;
2) a projected calculation of the amount of capital, items of capital and capital requirements, including capital buffers, for the three years after the implementation of those actions, including the projected calculation before their implementation and their impact on regulatory requirements;
3) an assessment of risks the bank is exposed to or might be exposed to, as well as whether the level of its capital is sufficient to cover such risks, conducted in accordance with the decision regulating risk management, including the results obtained at the latest stress-testing conducted in accordance with that decision, which could indicate potential losses in different scenarios;
4) all other information which the National Bank of Serbia deems relevant for the purpose of granting the consent referred to in paragraph 1 of this Section.

The application referred to in paragraph 1 of this Section shall be submitted by the bank to the National Bank of Serbia at least three months before the bank notifies the holders of Common Equity Tier 1 instruments, Additional Tier 1 instruments and Tier 2 instruments and creditors under subordinated liabilities included in the calculation of such capital about its intention to implement actions relating to that application; the bank may not send such notification before it obtains prior consent from the National Bank of Serbia for the implementation of those activities. The bank may submit the application referred to in paragraph 1 of this Section within less than three months if the National Bank of Serbia deems it justified under the specific circumstances.

The National Bank of Serbia shall decide on the application referred to in paragraph 1 of this Section within 60 days of the day of receiving such application.

The National Bank of Serbia shall grant the bank prior consent referred to in paragraph 1 of this Section provided that:

1) earlier than or at the same time as the action referred to in paragraph 1 of this Section, the bank replaces the instruments and/or items referred to in that paragraph with instruments of equal or higher quality at terms that are sustainable for the income capacity of the bank, taking into account the bank's profitability in stressed conditions, and that, where applicable, do not impose higher costs on the bank than the costs of the items or instruments being replaced; or

2) following the implementation of the action referred to in paragraph 1 of this Section, the capital of the bank and its capital adequacy ratios remain above the specified level, including the buffer requirement, and/or the higher ratio specified under Section 5 of this Decision.

The National Bank of Serbia shall grant the consent referred to in paragraph 1 of this Section to reduce the value, redeem or repay the Additional Tier 1 or Tier 2 instruments and subordinated liabilities included in the calculation of that capital in the first five years of the date of issue or payment, as applicable, only where, in addition to conditions specified in paragraph 6 of this Section, one of the following conditions is met:

1) it is very likely that there will be a change in the regulatory classification of those instruments or liabilities, as applicable, that was not reasonably foreseeable at the time of their issuance or occurrence, and which is likely to result in the exclusion of those instruments or liabilities, as applicable, from the calculation of capital, or reclassification as a lower quality form of capital;

2) there is a change in the applicable tax treatment of those instruments or liabilities, as applicable, which is material and was not reasonably foreseeable at the time of the issuance of those instruments or the occurrence of liabilities, as applicable.

Chapter IV

RISK-WEIGHTED EXPOSURES FOR CREDIT RISK

33. When calculating the risk-weighted exposure amounts for the purposes of Section 3, paragraph 2, indents one and six of this Decision, banks shall apply the Standardised Approach provided for in Part 1 of this Chapter, or the IRB Approach, provided for in Part 2 of this Chapter, if they

have obtained the consent of the National Bank of Serbia, under the conditions and in the manner specified in that consent.

For trade exposures to CCPs and for default fund contributions, banks shall apply the treatment set out in Part 5, Subpart 8 of this Chapter to calculate their risk-weighted exposure amounts for the purposes of paragraph 1 of this Section. For all other types of exposures to CCPs, banks shall treat those exposures as follows:

– as exposures to a bank, for other types of exposures to a QCCP,
– as exposures to a company, for other types of exposures to a non-qualifying CCP.

For the purposes of this Section, exposures to investment firms, credit institutions, clearing houses and exchanges of non-EU member countries may be treated as exposures to a bank only if the non-EU member country applies prudential and supervisory requirements to that entity that are aligned with the relevant EU regulations.

34. For an exposure to which the bank applies the Standardised or FIRB Approach, the bank may apply credit protection instruments in accordance with Part 3 of this Chapter when calculating risk-weighted exposure amounts for the purposes of Section 3, paragraph 2, indents one and six of this Decision, or, where applicable, when calculating the expected loss amounts for the purposes of calculating capital in accordance with Section 13, paragraph 1, item 4) and Section 27, paragraph 1, item 4) of this Decision.

For an exposure to which the bank applies the AIRB Approach under Section 116 of this Decision, the bank may apply credit protection instruments in accordance with Part 2 of this Chapter.

35. Where the bank uses the Standardised Approach for the exposure class to which the securitised exposures would be assigned under Section 38 of this Decision, it shall calculate the risk-weighted exposure amounts for securitisation positions in accordance with Sections 215 and 216, and Sections 219 to 234 of this Decision, if it has obtained prior consent of the National Bank of Serbia; for these purposes, the bank may use the Internal Assessment Approach in accordance with Section 235 of this Decision.

Where the bank uses the IRB Approach for the exposure class to which the securitised exposures would be assigned under Section 73 of this Decision, the bank shall calculate the risk-weighted exposure amounts in accordance with Sections 215 and 216, and Sections 235 to 242 of this Decision.

For all securitised exposures, except for the Internal Assessment Approach, where the IRB Approach is used only for a part of the underlying securitised exposures, the bank shall use the approach corresponding to the predominant share of underlying securitised exposures.

36. Banks applying the Standardised Approach shall treat general credit risk adjustments in accordance with Section 27, paragraph 1, item 3) of this Decision.

Banks applying the IRB Approach shall treat general credit risk adjustments in accordance with Section 13, paragraph 1, item 4), and Section 27, paragraph 1, item 4), and Section 134 of this Decision.

For the purposes of this Section, general and specific credit risk adjustments shall exclude funds for general banking risk.

Banks using the IRB Approach that apply the Standardised Approach for a part of their exposures on individual or consolidated basis, in accordance with Sections 81 and 83 of this Decision, shall determine the part of general credit risk adjustment that shall be assigned to the treatment of general credit risk adjustment under the Standardised Approach and to the treatment of general credit risk adjustment under the IRB Approach as follows:

1) when a bank included in the consolidation exclusively applies the IRB Approach, general credit risk adjustments of this bank shall be assigned to the treatment set out in paragraph 2 of this Section;

2) when a bank included in the consolidation exclusively applies the Standardised Approach, general credit risk adjustments of this bank shall be assigned to the treatment set out in paragraph 1 of this Section;

3) the remainder of credit risk adjustment shall be assigned on a pro rata basis according to the proportion of risk-weighted exposure amounts subject to the Standardised Approach and subject to the IRB Approach.

36a. The amount of risk-weighted exposures for credit risk calculated in the manner prescribed by chapter IV hereof in respect of dinar exposures to small and medium-sized enterprises, entrepreneurs and farmers, shall be multiplied by the deduction factor 0,7619, if the following conditions are met:

– the exposure to small and medium-sized enterprises, entrepreneurs and farmers is assigned to the class of exposures to natural persons, class of exposures to companies, and/or class of exposures secured by mortgages on immovable property. Exposures to small and medium-sized enterprises, entrepreneurs and farmers in default are excluded;

– the exposure to small and medium-sized enterprises, entrepreneurs and farmers is in dinars without an FX clause;

– the total amount of exposures of a bank, a bank's parent company, and bank's subsidiaries to the debtor – small and medium-sized enterprises, entrepreneurs and farmers and persons associated with the debtor, including exposures in default, but excluding exposures or potential exposures fully secured by mortgages on residential property, does not exceed RSD 180,000,000. The bank shall undertake necessary activities to correctly determine this amount and appropriately document it.

A bank shall inform the National Bank of Serbia of the total amount of the reduction in exposures following the application of the factor from paragraph 1 hereof in accordance with the decision regulating reporting on capital adequacy of banks.

Part 1

Standardised Approach

1. Exposure value, exposure classes and calculation of risk-weighted exposure amounts

37. The exposure value of an asset item shall be its accounting value less specific credit risk adjustments, additional value adjustments in accordance with Section 12, paragraph 5, and Section 36 of this Decision, and other capital reductions relating to that item.

The exposure value of an off-balance sheet item shall be its accounting value less specific credit risk adjustments, multiplied by the following conversion factors:

1) 0% – if it is a low-risk item;
2) 20% – if it is a medium/low-risk item;
3) 50% – if it is a medium-risk item;
4) 100% – if it is a full-risk item.

The off-balance sheet items shall be assigned to risk categories as follows:

1) the low-risk category includes the following items:

– undrawn credit facilities which comprise agreements to lend, purchase financial instruments, provide guarantees, warranties or acceptance facilities, as well as undrawn credit facilities for tender or bidding guarantees and performance guarantees which the bank may cancel unconditionally at

any time without notice, or that do effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness. Retail credit lines may be considered as unconditionally cancellable if the terms permit the bank to cancel them to the full extent allowable under consumer protection regulations and contractual terms,

– off-balance sheet items that are not payable;

2) the medium/low-risk category includes the following items:

– undrawn credit facilities which comprise agreements to lend, purchase financial instruments, provide guarantees or acceptance facilities with an original maturity of up to and including one year except those that meet the conditions to be assigned to the low-risk category,

– documentary credits in which underlying shipment acts as collateral and other similar trade related off-balance sheet items that can be fully covered by provisions,

– trade related warranties and guarantees (including tender and bidding guarantees, performance bonds and associated advance payment and retention guarantees) and other guarantees not having the character of credit substitutes; a credit substitute is any assumption of obligations which carries the same initial risk to the bank as credit extension,

– irrevocable standby letters of credit not having the character of credit substitutes, and which are trade related;

3) the medium-risk category includes the following items:

– trade related documentary credits, other than the ones that meet the conditions to be assigned to the medium/low-risk category,

– shipping guarantees, customs and tax bonds,

– undrawn credit facilities which comprise agreements to lend, purchase financial instruments, provide guarantees, warranties or acceptance facilities with an original maturity of more than one year, other than those that meet the conditions to be assigned to the low-risk category,

– note issuance facilities (NIFs) and revolving underwriting facilities (RUFs);

4) the full-risk category includes the following items:

– guarantees having the character of credit substitutes (e.g. guarantees for the good payment of credit facilities),

– credit derivatives,

– acceptances,

– endorsements on bills not bearing the name of another institution,

– transactions with recourse (e.g. factoring with recourse),

– irrevocable standby letters of credit having the character of credit substitutes,

– assets purchased under outright forward purchase agreements,

– forward deposits,

– the unpaid portion of partly-paid shares and other securities,

– repurchase transactions,

– other off-balance sheet items also carrying full risk.

Where an exposure is subject to funded credit protection, the bank may amend the exposure value applicable to that item in accordance with Part 3 of this Chapter.

When a bank is using the Financial Collateral Comprehensive Method to calculate the effects of credit protection under collateral in the form of financial assets, the exposure value of securities or commodities sold, posted or lent under a repurchase or reverse repurchase transaction or under a securities or commodities lending or borrowing transaction, or a margin lending transaction shall be increased by the volatility adjustment appropriate to such securities or commodities as prescribed in Sections 174 to 181 of this Decision.

By way of derogation from paragraphs 1 to 5 of this Section, the exposure value of a derivative instrument listed in Annex 1 of this Decision shall be determined by applying the method set out in Part 5 of this Chapter, taking into account the effects of netting agreements. The exposure value of repurchase and reverse repurchase transactions, securities or commodities lending or borrowing transactions, margin lending transactions and long settlement transactions may be determined in accordance with the provisions set out either in Part 5 or in Part 3 of this Chapter.

38. Each exposure shall be assigned to one of the following exposure classes:

1) exposures to central governments or central banks;
2) exposures to territorial autonomies or local government units;
3) exposures to public sector entities;
4) exposures to multilateral development banks;
5) exposures to international organisations;
6) exposures to banks;
7) exposures to companies;
8) retail exposures;
9) exposures secured by mortgages on immovable property;
10) exposures in default;
11) exposures associated with particularly high risk;
12) exposures in the form of covered bonds;
13) exposures in the form of securitisation positions;
14) exposures to banks and companies with a short-term credit assessment;
15) exposures in the form of units or shares in open-ended investment funds;
16) equity exposures;

17) other items.

By way of derogation from paragraph 1 of this Section, a bank is not required to assign exposures referred to in that paragraph to exposure classes which, in accordance with Chapter III, are deductibles from Common Equity Tier 1, Additional Tier 1 or Tier 2 capital.

The bank shall specify in its internal acts detailed criteria for the assignment of exposures to classes referred to in paragraph 1 of this Section.

39. To calculate risk-weighted exposure amounts, risk weights shall be applied to all exposures, except on exposures referred to in Section 38, paragraph 2 of this Decision.

To calculate the risk-weighted exposure amounts, the exposure value shall be multiplied by the corresponding risk weight which, in accordance with Subpart 2 of this Part, is determined for each exposure based on the exposure class to which it is assigned and the level of its credit quality.

The amount of risk-weighted exposures calculated in accordance with paragraph 2 hereof shall be reduced by the amount of the deductible from Section 13, paragraph 1, item 17) hereof.

Credit quality shall be determined by reference to the credit assessments of credit assessment institutions or the credit assessments of export credit agencies in accordance with Subpart 3 of this Part.

Where an exposure is subject to credit protection, a bank may amend the risk weight applicable to that item in accordance with the provisions set out in Part 3 of this Chapter.

Risk-weighted exposure amounts for securitised exposures shall be calculated in accordance with Part 4 of this Chapter.

Exposures for which no calculation is provided in Subpart 2 of this Part shall be assigned a risk weight of 100%.

40. With the exception of exposures giving rise to Common Equity Tier 1, Additional Tier 1 or Tier 2 items, a bank may, subject to prior consent of the National Bank of Serbia, assign the risk weight of 0% to the exposures of that bank to a counterparty which is its parent company, its subsidiary, a subsidiary of its parent company, or a company that is managed on a unified basis with the bank, regardless of the credit quality step of those exposures, provided that the following conditions are met:

1) the counterparty is a bank, an investment fund, a financial holding company, a mixed financial holding company, a financial institution, an asset management company or an ancillary services company subject to appropriate regulations governing the operation of such entities and the supervision of such operations;

2) the counterparty is included in the same consolidation as the bank on a full basis;

3) the counterparty is subject to the same risk evaluation, measurement and control procedures as the bank;

4) the bank and the counterparty are both established in the Republic of Serbia; and

5) there is no impediment to the transfer of capital or repayment of liabilities from the counterparty to the bank.

For the purposes of this Decision, a financial institution means an entity in the financial sector, other than a bank, an investment firm and an insurance undertaking, within the meaning of the law governing banks.

When the bank intends to assign the risk weights set out in paragraph 1 of this Section to exposures of entities referred to in that paragraph, it shall submit an application to the National Bank of Serbia for obtaining prior consent to apply that risk weight, and with the application it shall also submit documentation evidencing the fulfilment of conditions referred to in that paragraph.

The National Bank of Serbia shall decide on the application for consent referred to in paragraph 2 of this Section within thirty days of the day of receiving such application.

In the event of changes to the conditions referred to in paragraph 1 of this Section, the bank shall inform the National Bank of Serbia thereof without delay and submit appropriate documentation on those changes.

2. Risk weights

a) Exposures to central governments or central banks

41. Exposures to central governments and central banks for which a credit assessment by a nominated credit assessment institution is available shall be assigned a risk weight listed in the table below (Table 1), which corresponds to credit quality steps with which credit assessments are associated:

Table 1

Credit quality step	1	2	3	4	5	6
Risk weight	0%	20%	50%	100%	100%	150%

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

Exposures to the Republic of Serbia, the National Bank of Serbia and central governments and central banks of EU member states denominated and funded in their domestic currency shall be assigned a risk weight of 0%.

Exposures to central governments and central banks which are not subject to provisions of paragraphs 1 to 3 of this Section shall be assigned a risk weight of 100%.

Exposures to central governments of non-EU member countries and their central banks, to which the competent regulatory body has assigned a risk weight lower than the risk weight indicated in paragraph 1 or paragraph 4 of this Section and which are denominated and funded in their domestic currency, shall be assigned the same risk weight if that country applies supervisory and regulatory arrangements that are at least equivalent to those applied in the European Union.

b) Exposures to territorial autonomies or local government units

42. Exposures to local government units or territorial autonomies shall be risk-weighted as exposures to banks except in cases referred to in paragraphs 2, 4 and 5 of this Section. The preferential treatment for short-term exposures specified in Section 47, paragraph 2 and Section 48, paragraph 2 of this Decision shall not be applied to these exposures.

Exposures to territorial autonomies or local government units shall be treated as exposures to the central government in whose jurisdiction they are established where there is no difference in risk between such exposures because of the specific revenue-raising powers of the territorial autonomies or local government units, and the existence of specific institutional arrangements (e.g. relating to the accountability for the debts of territorial autonomies/local government units) the effect of which is to reduce their risk of default.

Exposures to churches or religious communities constituted in the form of a legal person under public law shall, insofar as they raise taxes in accordance with legislation conferring on them the right to do so, be treated as exposures to territorial autonomies and local government units. In this

case, paragraph 2 of this Section shall not apply and such exposures shall not be excluded from the application of the Standardised Approach referred to in Section 83 of this Decision.

When competent authorities of a non EU-member country jurisdiction which applies supervisory and regulatory arrangements at least equivalent to those applied in the European Union treat exposures to territorial autonomies or local government units as exposures to their central government and there is no difference in risk between such exposures because of the specific revenue-raising powers of territorial autonomies or local government units and to specific institutional arrangements to reduce the risk of default, the bank may risk weight exposures to such territorial autonomies and local government units in the same manner.

Exposures to territorial autonomies or local government units of the Republic of Serbia and EU member states that are denominated and funded in the domestic currency of that territorial autonomy and local government unit shall be assigned a risk weight of 20%.

c) Exposures to public sector entities

43. Exposures to public sector entities for which a credit assessment by a nominated credit assessment institution is not available shall be assigned a risk weight listed in the table below (Table 2) according to the credit quality step of the central government:

Table 2

Credit quality step	**1**	**2**	**3**	**4**	**5**	**6**
Risk weight	**20%**	**50%**	**100%**	**100%**	**100%**	**150%**

For exposures to public sector entities incorporated in countries where the central government is unrated, the risk weight shall be 100%.

Exposures to public sector entities for which a credit assessment by a nominated credit assessment institution is available shall be shall be treated in accordance with Section 48 of this Decision. The preferential treatment for short-term exposures specified in Section 47, paragraph 2, and Section 48, paragraph 2 of this Decision shall not be applied to those exposures.

For exposures to public sector entities with an original maturity of three months or less the risk weight shall be 20%.

In exceptional circumstances, exposures to public-sector entities may be treated as exposures to the central government, territorial autonomy or local government unit in whose jurisdiction they are established if the competent authorities of this jurisdiction treat such exposures in the same manner because there is no difference in risk between such exposures due to the existence of an appropriate guarantee/warranty by the central government, territorial autonomy or local government unit.

When competent authorities of a non-EU member country jurisdiction, which apply supervisory and regulatory arrangements at least equivalent to those applied in the European Union, treat exposures to public sector entities in accordance with paragraphs 1 to 3 of this Section, banks may risk weight exposures to such public sector entities in the same manner. Otherwise the banks shall apply a risk weight of 100%.

d) Exposures to multilateral development banks

44. Exposures to multilateral development banks, other than those referred to in paragraph 3 of this Section, shall be assigned risk weights prescribed by this Decision for exposures to banks. The preferential treatment for short-term exposures as specified in Section 47, paragraph 2, Section 48, paragraph 2, and Section 49, paragraph 3 of this Decision shall not be applied to those exposures.

For the purposes of paragraph 1 of this Section, the Inter-American Investment Corporation (IIC), the Black Sea Trade and Development Bank (BSTDB), the Central American Bank for Economic Integration (CABEI) and the CAF-Development Bank of Latin America shall be considered multilateral development banks.

Exposures to the following multilateral development banks shall be assigned a 0% risk weight:

– the International Bank for Reconstruction and Development (IBRD),
– the International Finance Corporation (IFC),
– the Inter-American Development Bank (IADB),
– the Asian Development Bank (ADB),
– the African Development Bank (AFDB),
– the Council of Europe Development Bank (CEB),
– the Nordic Investment Bank (NIB),
– the Caribbean Development Bank (CDB),
– the European Bank for Reconstruction and Development (EBRD),
– the European Investment Bank (EIB),
– the European Investment Fund (EIF),

– the Multilateral Investment Guarantee Agency (MIGA),
– the International Finance Facility for Immunisation (IFFIm),
– the Islamic Development Bank (IcDB).

e) Exposures to international organisations

45. Exposures to the following international organisations shall be assigned a 0% risk weight:

– the European Union (EU),
– the International Monetary Fund (IMF),
– the Bank for International Settlements (BIS),
– the European Financial Stability Facility (EFSF),
– the European Stability Mechanism (ESM),
– an international financial institution established by two or more EU member states, which has the purpose to mobilise funding and provide financial assistance to the benefit of its members that are experiencing financing problems.

f) Exposures to banks

46. In addition to exposures to banks established in the Republic of Serbia, the class of exposures to banks shall also include the following exposures:

– legal entities established outside the Republic of Serbia whose main business activity is to take deposits and to grant credits for their own account (credit institutions),
– legal entities whose main business activity is to provide investment services to third persons and carry out investment activities (investment funds),
– other financial sector entities to which the competent regulatory authority of the country where the entities are established has granted operating licences and are subject to relevant regulations governing the operation of such entities and the supervision of such operations, comparable to those applied to banks.

For the purposes of paragraph 1, indent two of this Section, an investment firm shall not mean a company which closes deals regarding financial futures and options for its own account, solely for hedging purposes under derivative positions, or which closes such deals for the account of other entities that are participants in the financial market, but only with a clearing house guarantee, or a company authorised only for investment consulting services and/or mediation with receiving and forwarding client orders.

47. Exposures to banks for which a credit assessment by a nominated credit assessment institution is available shall be risk-weighted in accordance with Section 48 of this Decision. Exposures to banks for which a credit assessment by a nominated credit assessment institution is not available shall be risk-weighted in accordance with Section 49 of this Decision.

Exposures to banks of a residual maturity of three months or less denominated and funded in the national currency of the borrower shall be assigned a risk weight that is one category less favourable than the risk weight assigned to exposures to the central government in which the debtor bank is incorporated.

No exposures referred to in paragraph 2 of this Section shall be assigned a risk weight less than 20%.

48. Exposures to banks of a residual maturity of more than three months for which a credit assessment by a nominated credit assessment institution is available shall be assigned a risk weight listed in the table below (Table 3), by credit quality steps with which credit assessments are associated:

Table 3

Credit quality step	**1**	**2**	**3**	**4**	**5**	**6**
Risk weight	**20%**	**50%**	**50%**	**100%**	**100%**	**150%**

Exposures to banks of a residual maturity of three months or less for which a credit assessment by a nominated credit assessment institution is available shall be assigned a risk weight listed in the table below (Table 4), by credit quality steps with which credit assessments are associated:

Table 4

Credit quality step	**1**	**2**	**3**	**4**	**5**	**6**
Risk weight	**20%**	**20%**	**20%**	**50%**	**50%**	**150%**

A bank shall assign risk weights to exposures to banks in accordance with the following:

– when the short-term credit assessment by a nominated credit assessment institution is not available, the bank shall specify the risk weight in accordance with paragraph 2 of this Section and shall apply it to all exposures to banks with the residual maturity of three months or less,

– when the short-term credit assessment by a nominated credit assessment institution is available and corresponds to an equal or more favourable risk weight than the one specified in paragraph 2 of this Section, such risk weight may be changed only for exposures to which the credit assessment refers to, whereas for other exposures to banks with the residual maturity of three months or less the risk weight shall be specified in accordance with paragraph 2 of this Section;

– when the short-term credit assessment by a nominated credit assessment institution is available and corresponds to a less favourable risk weight than the one specified in paragraph 2 of this Section, such credit assessment shall be applied to all exposures to banks with the residual maturity of three months or less for which a credit assessment by a nominated credit assessment institution is not available.

49. Exposures to banks for which a credit assessment by a nominated credit assessment institution is not available shall be assigned a risk weight listed in the table below (Table 5), in accordance with the credit quality step of the central government of the jurisdiction in which the debtor bank is incorporated:

Table 5

Credit quality step	**1**	**2**	**3**	**4**	**5**	**6**
Risk weight	**20%**	**50%**	**100%**	**100%**	**100%**	**150%**

For exposures to banks incorporated in countries where the central government is unrated, the risk weight shall be 100%.

For exposures to banks with an original effective maturity of three months or less, for which the credit assessment by a nominated credit assessment institution is not available, the risk weight shall be 20%.

Notwithstanding paragraphs 2 and 3 of this Section, a bank shall assign a risk weight of 50% to trade related exposures to banks for which credit assessment by a nominated credit assessment institution is not available and which meet the conditions set out in Section 109, paragraph 4, item 2) of this Decision. Where the residual maturity of these trade finance exposures to unrated institutions is three months or less, the risk weight shall be 20%.

e) Exposures to companies

50. Exposures to companies for which a credit assessment by a nominated credit assessment institution is available shall be assigned a risk weight listed in the table below (Table 6), by credit quality steps with which credit assessments are associated:

Table 6

Credit quality step	**1**	**2**	**3**	**4**	**5**	**6**
Risk weight	**20%**	**50%**	**100%**	**100%**	**150%**	**150%**

Exposures to companies for which a credit assessment by a nominated credit assessment institution is not available shall be assigned the risk weight of exposures to the central government of the jurisdiction in which the company is incorporated or a 100% risk weight – whichever is the greater.

h) Retail exposures

51. Exposures classified as retail exposures shall be assigned a risk weight of 75% if they comply with the following criteria:

– the exposure is either to a natural person (including a farmer or entrepreneur), or to a small and medium-sized enterprise;
– the exposures are sufficiently diversified and with similar characteristics, so that the risks associated with such exposures are substantially reduced;
– the total exposure to a single obligor shall not exceed RSD 120,000,000.

The total exposure to a single obligor, within the meaning of paragraph 1 of this Section, shall be determined as the total exposure of the bank, its parent company and the bank's subsidiaries to the obligor and persons related to the obligor, including exposures in default; this shall exclude exposures fully secured by mortgages on residential property, in accordance with Section 53 of this Decision, and investment in securities.

The bank may also include the present value of lease payments under lease agreements in the retail exposures class, if the lessee is a natural person within the meaning of this Decision.

Exposures that do not comply with the criteria set out in paragraphs 1 and 3 of this Section shall not be eligible for the retail exposures class.

i) Exposures secured by mortgages

52. Exposures or any part of an exposure secured by mortgage shall be assigned a credit risk weight of 100% where the conditions under Section 53 or Section 54 of this Decision, as applicable, are not met, except for any part of the exposure which is assigned to another exposure class. The part of the exposure that exceeds the amount secured by mortgage shall be assigned the risk weight applicable to the unsecured exposures of the obligor involved.

Where mortgage relates to immovable property located in the territory of an EU member state, when determining the part of the exposure to be treated as fully secured by mortgage, the bank shall use, for the purpose of calculating the ratio of the loan to mortgage value, the percentage laid down in the relevant regulation of such member state regulating the eligibility of immovable property for this exposure class. If such regulation lays down risk weights and eligibility criteria different from those defined by Section 53 or Section 54 of this Decision, as applicable, for the immovable property in question, the bank shall apply such risk weights and criteria for the purpose of calculating risk-weighted exposures from this class.

53. Exposures or any part of an exposure fully secured by mortgages on residential property which is (or shall be) occupied or let by the owner on the basis of an adequate contract shall be assigned a risk weight of 35%.

Banks shall consider an exposure or any part of an exposure as fully secured by mortgage for the purposes of this Section if the following conditions are met:

1) the value of the residential property that is the subject of mortgage shall not materially depend upon the credit quality of the borrower, not taking into account macroeconomic factors that affect both the value of the residential property and the borrower’s credit quality;

2) the borrower’s credit quality shall not materially depend on the value of the property that is the subject of mortgage or the cash flows generated from its use, but on the capacity of the borrower to repay the debt from other sources. For those other sources, banks shall determine maximum loan-to-income ratios as part of their lending policy and shall have all relevant documentation relating to such sources before granting the loan;

3) the requirements referred to in Section 156 and Section 185, paragraphs 1 and 2 of this Decision;

4) the part of the loan to which the 35% risk weight is assigned does not exceed 80% of the market value of the residential property that is the subject of mortgage.

54. Exposures fully secured by mortgages on commercial immovable property shall be assigned a risk weight of 50%.

Banks shall consider an exposure or any part of an exposure as fully secured by mortgage for the purposes of this Section if the following conditions are met:

1) the value of the commercial property which is the subject of mortgage shall not materially depend on the credit quality of the borrower, not taking into account macroeconomic factors which affect both the value of the commercial property and the credit quality of the borrower;
2) requirements referred to in Section 156 and Section 185, paragraphs 1 and 2 of this Decision;
3) the borrower's credit quality shall not materially depend on the value of the commercial immovable property that is the subject of mortgage or the cash flows generated from its use, but on the capacity of the borrower to repay the debt from other sources;
4) the part of the loan to which the 50% risk weight is assigned does not exceed 50% of the market value of the commercial immovable property that is the subject of mortgage.

j) Exposures in default

55. All unsecured exposures where the obligor has defaulted in accordance with Section 93 of this Decision and all exposures to persons classified in the retail exposures class that have defaulted shall be assigned the following risk weight:

1) 150% – where specific credit risk adjustments are less than 20% of the exposure's gross carrying value before the adjustments were applied,
2) 100% – where specific credit risk adjustments are no less than 20% of the exposure's gross carrying value before the adjustments were applied.

For the purposes of paragraph 1 of this Section, an unsecured exposure shall mean the part of the exposure that is not secured by an eligible credit protection instrument in accordance with Part 3 of this Chapter.

By way of derogation from paragraph 1 of this Section, for exposures considered fully secured by mortgage on immovable property in accordance with Sections 53 and 54 of this Decision which are in default, a risk weight of

100% shall apply to the value of these exposures less the amount of specific credit risk adjustments.

k) High-risk exposures

56. Banks shall assign exposures to the class of high-risk exposures (including exposures in the form of units in open-ended investment funds, if applicable) if they are associated with particularly high risks such as:

1) investment in high-risk, highly profitable projects;
2) investment in non-open ended investment funds;
3) investment in capital instruments of entities not listed on the exchange;
4) speculative immovable property financing.

Banks shall assign a credit risk weight of 150% to exposures referred to in paragraph 1 of this Section.

When assessing whether exposures not referred to in paragraph 1 of this Section are associated with high risks, banks shall take into account the following risk characteristics:

– there is a high risk of loss as a result of a default of the obligor,
– it is impossible to assess adequately whether the exposure meets the condition under indent one of this paragraph.

l) Exposures in the form of covered bonds

57. Exposures in the form of covered bonds for which a credit assessment by a nominated credit assessment institution is available shall be assigned a risk weight listed in the table below (Table 7), by credit quality steps with which credit assessments are associated:

Table 7

Credit quality step	**1**	**2**	**3**	**4**	**5**	**6**
Credit risk weight	**10%**	**20%**	**20%**	**50%**	**50%**	**100%**

Exposures in the form of covered bonds for which a credit assessment by a nominated assessment institution is not available shall be assigned a risk weight based on the risk weight assigned to a senior unsecured exposure, as follows:

1) 10% – if the exposure to the issuing bank is assigned a risk weight of 20%;

2) 20% – if the exposure to the issuing bank is assigned a risk weight of 50%;

3) 50% – if the exposure to the issuing bank is assigned a risk weight of 100%; or

4) 100% – if the exposure to the issuing bank is assigned a risk weight of 150%.

Exposures under covered bonds may be eligible for the preferential treatment set out in paragraphs 1 and 2 of this Section if they are collateralised by the following assets:

1) exposures to or guaranteed by the Republic of Serbia, National Bank of Serbia, EU member states, their central banks, territorial autonomies, local government units or public administrative bodies;

2) exposures to or guaranteed by central governments of non-EU countries, their central banks, multilateral development banks, international organisations whose credit assessment corresponds to credit quality step 1 in accordance with this Decision;

3) exposures to or guaranteed by territorial autonomies, local government units or public administrative bodies of non-EU countries that are risk weighted, in accordance with this Decision, as exposures to banks or central governments and central banks in accordance with Section 42, paragraphs 1 or 2 or Section 43, paragraphs 1, 3 or 5 of this Decision, as applicable, and whose credit assessment corresponds to credit quality step 1;

4) exposures to entities referred to in items 2) and 3) of this paragraph whose credit assessment corresponds to credit quality step 2 in accordance with this Decision, provided that they do not exceed 20% of the nominal amount of outstanding covered bonds of the issuing bank;

5) exposures which do not exceed 15% of the nominal amount of outstanding covered bonds of the issuing bank, to banks whose credit assessment corresponds to credit quality step 1 in accordance with this Decision, or credit quality step 2 for exposures to banks established in the Republic of Serbia or in EU member states, with a remaining maturity not exceeding 100 days;

6) exposures secured by mortgage on residential property in the lesser of the principal amount to which the mortgage is registered (taking into account any prior liens on such property) or 80% of the value of the pledged property;

7) exposures secured by senior tranches or securities of entities securitising residential property exposures governed by the regulations of an EU member state, if the following conditions are met:

– these regulations ensure that at any time at least 90% of the cover pool is composed of exposures secured by residential mortgages in the lesser of the principal amount of these tranches or securities, and/or the amount to which the mortgage is registered (taking into account any prior liens on such property), or 80% of the value of the pledged property;

– that the credit assessment of these tranches or securities corresponds to credit quality step 1 in accordance with this Decision,

– that the amount of these tranches or securities does not exceed 10% of the nominal amount of the outstanding covered bonds of the issuing bank;

8) exposures secured by mortgage on commercial immovable property in the lesser of the principal amount to which the mortgage is registered (taking into account any prior liens on such property) or 60% of the value of the pledged property;

9) exposures secured by senior tranches or securities of entities securitising commercial immovable property exposures governed by the regulations of an EU member state, if the following conditions are met:

– these regulations ensure that at any time at least 90% of the cover pool is composed of exposures secured by commercial mortgages in the lesser of the principal amount of these tranches or securities, and/or the amount to which the mortgage is registered (taking into account any prior liens on such property), or 60% of the value of the pledged property,

– that the credit assessment of these tranches or securities corresponds to credit quality step 1 in accordance with this Decision,

– that the amount of these tranches or securities does not exceed 10% of the nominal amount of the outstanding covered bonds of the issuing bank;

10) loans secured by maritime liens on ships, if the principal amount to which the lien is registered (taking into account any prior liens on the ship) does not exceed 60% of the value of the pledged ship.

By way of exception, the 60% limit on the value of the pledged property referred to in paragraph 3, item 8) and item 9), indent one of this Section can be exceeded up to the level of 70% of that value, if the value of total collateral for the covered bonds exceeds the nominal amount outstanding on the covered bond issue by at least 10%, if the bondholders' claims meet the certainty requirements set out in Part 3 of this Chapter and take priority over all other claims on the collateral.

Exposures caused by the collection of receivables in respect of transmission or management of payments of the obligors of, or liquidation proceeds in respect of, loans secured by mortgage on immovable properties that are underlying assets of the senior tranches or securities, within the meaning of paragraph 3, items 5), 7) and 8) of this Section, shall not be comprised in calculating the limits referred to in those items.

The preferential treatment referred to in paragraphs 1 or 2 of this Section may be applied even if the bonds' country of issue sets out that the cover assets are intended exclusively for the protection of bondholders against losses and if, in the case of immovable property collateralising covered bonds, the requirements set out in Section 156 of this Decision and the valuation rules set out in Section 185, paragraphs 1 and 2 of this Decision are applied.

The bank shall assign the risk weights referred to in paragraphs 1 and 2 of this Section provided that it proves the fulfilment of the following conditions, in addition to the conditions referred to in paragraph 3 of this Section:

1) bank receives portfolio information of cover assets at least on:
– the value of the cover pool and outstanding covered bonds,
– the geographical distribution and type of cover assets,
– loan size, interest rate and currency risks, the maturity structure of cover assets and covered bonds, and the percentage of loans more than 90 days past due in the cover pool;
2) the information referred to in item 1) of this paragraph is submitted at least semi-annually.

m) Exposures in the form of securitisation positions

58. The bank shall determine risk-weighted exposure amounts for securitisation positions in accordance with Part 4 of this Chapter.

n) Exposures to banks and companies with a short-term credit assessment

59. Exposures to banks and companies for which a short-term credit assessment by a nominated credit assessment institution is available shall be assigned a risk weight listed in the table below (Table 8), by credit quality steps with which credit assessments are associated:

Table 8

Credit quality step	**1**	**2**	**3**	**4**	**5**	**6**
Credit risk weight	**20%**	**50%**	**100%**	**150%**	**150%**	**150%**

o) Exposures in the form of units in open-ended investment funds

60. Exposures in the form of units in open-ended investment funds for which a credit assessment by a nominated credit assessment institution is available shall be assigned a risk weight listed in the table below (Table 9), by credit quality steps with which credit assessments are associated:

Table 9

Credit quality step	**1**	**2**	**3**	**4**	**5**	**6**
Credit risk weight	**20%**	**50%**	**100%**	**100%**	**150%**	**150%**

The bank may assign the risk weight determined in accordance with paragraphs 3 and 4 of this Section to exposures in the form of units in open-ended investment funds, if the following criteria are met:

1) the fund is managed by a company which is subject to supervision by:

– a competent regulatory authority in the Republic of Serbia or an EU member state, as applicable,

– a competent regulatory authority in a non-EU country if such supervision is carried out in compliance with EU regulations and there is adequate cooperation between the National Bank of Serbia and such competent authority;

2) the fund's investment policy and prospectus and/or equivalent document must include the following:

– the categories of assets in which the fund is authorised to invest,

– if investment limits apply, the individual limits and the methodologies to calculate them;

3) the fund publishes a report on its operations on at least an annual basis to enable an assessment to be made of its assets and liabilities, income and operations over the reporting period.

Where the bank is aware of the structure of exposures in the form of units in an open-ended investment fund, total exposure to such fund shall be assigned a risk weight equal to the weighted average of risk weights for individual exposures under this investment assigned in accordance with this Subpart. Where an open-ended investment fund invests in another open-ended investment fund which fulfils the criteria of paragraph 2 of this Section, the bank may use the structure of exposures of that other investment fund as the basis for calculating the risk weight.

Where the bank is not aware of the structure of exposures in the form of units in an open-ended investment fund, total exposure to such fund shall be assigned a risk weight equal to the weighted average of risk weights for assumed exposures under this investment assigned in accordance with this Decision. The assumed exposures shall be determined in the following way: first included shall be the exposures to which the highest risk weight is assigned in accordance with this Subpart, assuming that the maximum total limit for the fund's investment in such exposures as defined by the fund's investment policy and/or the law regulating the operations of investment funds shall be reached, followed by the exposures that are assigned lower risk weights in descending order, assuming that the maximum total limit for open-ended investment fund's investment in such exposures shall be reached.

For units in open-ended investment funds, the bank may use risk weights calculated by a third party in accordance with paragraphs 3 and 4 of this Section, if the calculation is validated by an external auditor and the third party is:

– the depository of the fund which is a bank or other financial sector entity, if the fund exclusively invests in securities and deposits securities at that depository,

– for funds not covered by indent one of this paragraph, the fund management company, provided that the company meets the criteria set out in paragraph 2, item 1) of this Section.

The bank shall assign a risk weight of 100% to exposures in the form of units in open-ended investment funds that do not meet the criteria for the application of the risks weights set out in paragraphs 1 to 5 of this Section.

p) Equity exposures

61. The bank shall classify the following exposures as equity exposures:

1) non-debt exposures conveying a subordinated claim on the assets or income of the issuer;

2) debt exposures and other securities, interests, financial derivatives or other financial instruments, the economic substance of which is similar to the exposures specified in item 1) of this paragraph.

Equity exposures shall be assigned a risk weight of 100%, unless these are:

– exposures required to be deducted from Common Equity Tier 1 capital, Additional Tier 1 capital or Tier 2 capital of the bank in accordance with Chapter II of this Decision,

– investments assigned a 250% risk weight in accordance with Section 21 of this Decision,

– investments assigned a 1,250% risk weight in accordance with Section 13, paragraph 6 of this Decision,

– investments treated as high risk exposures, in accordance with Section 56 of this Decision.

Investments in equity and capital instruments issued by banks shall be classified as equity exposures, except in cases specified in paragraph 2, indents one, two and four of this Section.

q) Other exposures

62. Cash and cash equivalents held in the bank's treasury or cash vaults, as applicable, shall be assigned a 0% risk weight, whereas cash and cash equivalents in the process of collection shall be assigned a 20% risk weight.

Gold bullion held in the bank's vaults or on an allocated basis to the extent backed by bullion liabilities shall be assigned a 0% risk weight.

Fixed assets shall be assigned a 100% risk weight.

Prepayments and accrued income for which the bank is unable to determine the counterparty shall be assigned a risk weight of 100%.

The credit quality step of exposures arising from repurchase and reverse repurchase transactions and forward asset purchase agreements shall be that determined with reference to the assets that are the subject of the transaction and not on the basis of the credit assessment of the obligor.

Where a bank provides credit protection for a basket of exposures under terms that the nth default among the exposures shall trigger payment and that this credit event shall terminate the contract, the risk weights shall be assigned in the following way:

1) if a credit assessment by a nominated assessment institution is available for this instrument, the bank shall assign risk weights in accordance with Part 4 of this Chapter,

2) if no credit assessment by a nominated assessment institution is available for this instrument, the bank shall determine the risk weights by aggregating the risk weights of all exposures included in the basket

(excluding n-1 exposures and/or exposures each of which produces the lowest risk-weighted exposure amount) up to 1,250% and multiplying them by the nominal amount of credit protection provided by the credit derivative.

The exposure value for leases shall be equal to the present value of the lease payment. If a person other than the lessee is required to make a payment of the residual value of a lease asset (the difference between the value of the unamortised amount and the market value of the lease asset) and this payment obligation fulfils the conditions in Sections 149, 162 and 164 of this Decision, it may be taken into account as a credit protection instrument in accordance with Part 3 of this Decision.

The bank shall assign exposures referred to in paragraph 8 of this Section to the relevant exposure class in accordance with Section 38 of this Decision.

When the exposure is a residual value of the lease asset, the risk-weighted exposure amounts shall be calculated as follows:

1/t × 100% × residual value of the lease asset,

where t = max (1, number of whole years of the lease agreement remaining).

3. Nomination of credit assessment institutions and the use of credit assessments to assign credit risk weights

a) Nomination of assessment institutions and export credit agencies

63. The bank may nominate one or more assessment institutions whose credit assessments shall be used for the assignment of risk weights specified in Subpart 2 of this Part.

The bank that uses credit assessments by an eligible assessment institution or export credit agency shall notify the National Bank of Serbia without delay if it ceases to use these assessments and shall substantiate this decision, particularly where this may result in a possible reduction of capital requirements.

A credit assessment may be used to determine the risk weight of an exposure under Subpart 2 of this Part only if it has been issued or endorsed by an eligible assessment institution.

A credit assessment institution registered or certified in accordance with relevant EU regulations shall submit an application to the National Bank of

Serbia to be included in the list of eligible credit assessment institutions; together with the application, it shall provide evidence of registration or a certificate issued by the relevant regulatory body, an equivalent document on the mapping of credit assessments performed by that body, as well as any other documents as requested by the National Bank of Serbia.

The National Bank of Serbia shall prescribe by guidelines the manner of determining the eligibility of assessment institutions not registered or certified in accordance with relevant EU regulations, in order to be included in the list of eligible credit assessment institutions published by the National Bank of Serbia.

64. The bank may use credit assessments of an export credit agency to determine the credit quality step of exposures to central governments and central banks, as follows:

– the consensus credit score of the central government from export credit agencies signatories to the *Arrangement on Guidelines for Officially Supported Export Credits* of the Organisation for Economic Cooperation and Development (OECD),

– the credit assessment of the central government published by an individual export credit agency in conformity with the OECD methodology (the credit assessment is associated with one of the eight minimum export insurance premiums).

If the bank uses credit assessments by an export credit agency, exposures to central governments and central banks shall be assigned a risk weight listed in the table below (Table 10), by categories of minimum export insurance premiums with which credit assessments are associated:

Table 10

Categories of minimum export insurance premiums	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Credit risk weight	**0%**	**0%**	**20%**	**50%**	**100%**	**100%**	**100%**	**150%**

b) Use of credit assessments for the determination of credit risk weights

65. The bank shall use the solicited credit assessments by a nominated assessment institution, but it also may use unsolicited credit assessments of

a nominated assessment institution if this is included in the list of eligible assessment institutions published by the National Bank of Serbia.

In its internal acts, the bank shall regulate the nomination of the assessment institution and the use of credit assessments to assign risk weights in accordance with this Part, and shall comply with the following requirements:

1) the bank shall determine the classes of exposures for which it shall use the credit assessments produced by a nominated assessment institution and shall use those credit assessments consistently and continuously for all exposures belonging to those classes;

2) the bank shall determine the credit assessments produced by a nominated assessment institution and use them in a continuous and consistent way;

3) the bank shall only use credit assessments produced by nominated assessment institutions that take into account total exposure, including principal and interest owed to it;

4) where only one credit assessment from a nominated assessment institution is available for an exposure, the bank shall use that credit assessment to determine the risk weight;

5) where two credit assessments from nominated assessment institutions are available for an exposure and the two, according to the allocation of credit assessments to corresponding credit quality steps, correspond to different risk weights, the bank shall use the credit assessment corresponding to a higher risk weight;

6) where three or more credit assessments from nominated assessment institutions are available for an exposure and they, according to the allocation of credit assessments to corresponding credit quality steps, correspond to different risk weights, the bank shall use the lower of the two highest risk weights, whereas if they correspond to the same risk weight, the bank shall use that risk weight.

c) Use of credit assessments of issuers and financial instruments

66. Where a credit assessment exists for a specific financial instrument, the bank shall use this credit assessment to assign the risk weight to exposures in this respect.

Where no credit assessment exists for a specific financial instrument, but a credit assessment exists for a specific issue of financial instruments to which the exposure does not belong or a credit assessment exists for the issuer, then that credit assessment shall be used in the following cases:

1) if it corresponds to a higher risk weight than the risk weight for exposures for which no credit assessment exists – only if the exposures for which no credit assessment exists have a pari passu or junior seniority relative to the specific issue of financial instruments or other unsecured exposures to that issuer;

2) if it corresponds to a lower risk weight than the risk weight for exposures for which no credit assessment exists – only if the exposures for which no credit assessment exists have at least a pari passu seniority relative to the specific issue of financial instruments or other unsecured exposures to that issuer.

If the conditions for the application of paragraphs 1 or 2 of this Section are not fulfilled, the exposure shall be considered as unrated.

Paragraphs 1 to 3 of this Section shall not apply to exposures in the form of covered bonds referred to in Section 57 of this Decision.

The bank may not use the credit assessment for an issuer within a group of related persons to assign risk weights to exposures to other persons within the same group.

d) Use of long-term and short-term credit assessments

67. Banks may use short-term credit assessments only to determine risk weights for exposures to banks or companies.

A short-term credit assessment shall only be used to determine the risk weight for short-term exposures this assessment refers to, i.e. it shall not be used to derive risk weights for any other exposures, except in the following cases:

– if a short-term exposure is assigned a short-term credit assessment corresponding to a 150% risk weight, the bank shall assign the 150% risk weight to all other exposures to that obligor for which no credit assessment is available, including long-term exposures,

– if a short-term exposure is assigned a short-term credit assessment corresponding to a 50% risk weight, the bank shall assign a risk weight not lower than 100% to all short-term exposures to the same obligor for which no credit assessment is available.

e) Use of credit assessments for domestic and foreign currency items

68. A credit assessment that refers to an exposure denominated in the obligor’s domestic currency cannot be used to derive a risk weight for another exposure to the same obligor that is denominated in a foreign currency.

By derogation from paragraph 1 of this Section, the bank may use the credit assessment that refers to an exposure denominated in the obligor's domestic currency to derive a risk weight for an exposure denominated in a foreign currency if this exposure arises through the bank's participation in a loan that has been extended by a multilateral development bank assigned a 0% risk weight in accordance with this Decision.

Part 2

IRB Approach

1. Consent of the National Bank of Serbia to use the IRB Approach

a) Consent to use the IRB Approach

69. Banks may use the IRB Approach to calculate their credit risk-weighted exposures subject to prior consent of the National Bank of Serbia (hereinafter: prior consent to use the IRB Approach).

Banks shall submit to the National Bank of Serbia an application to obtain prior consent to use the IRB Approach (including own estimates of LGD parameters and conversion factors) for each exposure class, rating system and internal model approach to equity exposures, and for each approach to estimating LGDs and conversion factors used.

When submitting the application for obtaining consent referred to in paragraph 2 of this Section, the bank shall submit to the National Bank of Serbia the relevant data and documents proving the fulfilment of requirements set out in that paragraph.

The National Bank of Serbia shall prescribe by guidelines the manner of implementing provisions of this Section regarding the submission of data and documents, and their assessment.

The National Bank of Serbia shall decide on the application for prior consent to use the IRB Approach referred to in paragraph 2 of this Section within six months of the day of receiving such application.

Banks shall submit an application for obtaining prior consent of the National Bank of Serbia for the following:

1) material changes to the range of application of a rating system or an internal models approach to equity exposures that the bank has received prior consent to use; the range of application of a rating system shall

comprise all exposures of the relevant type of exposure for which that rating system was developed;

2) material changes to a rating system or an internal models approach to equity exposures that the bank has received prior consent to use.

The National Bank of Serbia shall decide on the application for prior consent referred to in paragraph 5 of this Section within six months of the day of receiving such application.

Banks shall notify the National Bank of Serbia of all changes to rating systems or internal models approaches to equity exposures.

70. The National Bank of Serbia shall grant prior consent to use the IRB Approach, including the AIRB Approach, to a bank, if the bank meets the requirements for the application of that approach laid down in this Part, if it has established a reliable and adequate system for the management of credit risk and the assignment of ratings, and if the following standards are met:

1) the bank's internal rating system provides for a meaningful assessment of obligor and transaction characteristics, a meaningful differentiation of risk and accurate and consistent quantitative estimates of risk;

2) internal ratings and default and loss estimates used in the calculation of capital requirements and associated systems and processes play an essential role in the risk management and decision-making process, and particularly in the credit approval, internal capital allocation and corporate governance functions of the bank;

3) the bank has a credit risk control organisational unit that is independent from other organisational units in the bank and is responsible for its internal rating systems;

4) the bank collects and stores all relevant data to provide effective support to its credit risk management and in particular credit risk measurement process;

5) the bank adequately documents the rating systems it applies, including the rationale for the choice of their structure and characteristics, and validates its rating systems regularly;

6) the bank has validated each rating system and each internal models approach for equity exposures during an appropriate time period prior to the consent to use these rating systems or internal models approaches for equity exposures, has assessed during this time period whether the rating systems or internal models approaches for equity exposures are suited to the range of their application, and has made necessary changes to these rating systems or internal models approaches following from its assessment;

7) the bank has calculated under the IRB Approach the capital requirements resulting from its risk parameters estimates and is able to

submit adequate reports in accordance with the decision regulating reporting on capital adequacy of banks;

8) the bank assigns each exposure to an appropriate rating system and, within the range of application of this system, to a risk grade or pool of exposures, as applicable; the bank assigns each equity exposure to the range of application of an appropriate internal model.

The requirements to use an IRB Approach, including own estimates of LGD and conversion factors, apply also where a bank has implemented a rating system, or model used within a rating system, that it has purchased from a third party.

b) Prior experience of using IRB Approaches

71. A bank may be granted prior consent to use the IRB Approach if it has been using, for the exposure classes for which the application is submitted, internal rating systems that were broadly in line with the requirements set out in Subpart 2 of this Part for internal risk management and, in particular, internal risk measurement purposes for at least three years prior to applying for this consent.

A bank submitting an application to obtain prior consent to use the AIRB Approach shall demonstrate that it has been employing own estimates of LGDs and conversion factors in a manner that was broadly consistent with the requirements for the use of such parameters set out in Subpart 2 of this Part for at least three years prior to submitting the application.

If the bank extends the use of the IRB Approach to new exposures subsequent to its initial consent, the experience of the bank shall be considered sufficient to satisfy the requirements of paragraphs 1 and 2 of this Section in respect of such exposures.

If the use of rating systems is extended to new exposures that are significantly different from the scope of the existing coverage, such that the existing experience cannot be reasonably assumed to be sufficient to meet the requirements of provisions in paragraphs 1 and 2 of this Section, the bank shall demonstrate the fulfilment of these requirements for such additional exposures.

c) Measures to be taken where the bank ceases to meet the requirements of this Part

72. Where, after being granted the consent to use the IRB Approach, a bank ceases to comply with the requirements laid down in this Part, it shall present to the National Bank of Serbia without delay a plan for timely return to

compliance with these requirements, or demonstrate that the effect of non-compliance with such requirements is immaterial. If the bank has presented the plan referred to in this paragraph, it shall notify the National Bank of Serbia without delay of its return to compliance with the requirements set out in that paragraph within the timeline specified in the plan.

The National Bank of Serbia may revoke the consent to use the IRB Approach if it establishes that the bank does not comply with the requirements laid down in this Part, and the effects of such non-compliance are material, if the bank has failed to present the plan referred to in paragraph 1 of this Section, it has presented an inadequate plan or has failed to comply with the presented plan.

Where the National Bank of Serbia has revoked the consent to use the IRB Approach, the bank shall calculate risk-weighted exposures by using the Standardised Approach.

d) Methodology to assign exposures to exposure classes

73. For the purpose of applying the IRB Approach in accordance with its methodology, a bank shall assign each exposure to one of the following classes:

1) exposures to central governments and central banks;
2) exposures to banks;
3) exposures to companies;
4) retail exposures;
5) equity exposures;
6) exposures in the form of securitisation positions;
7) exposures on other assets.

The methodology referred to in paragraph 1 of this Section shall be based on the characteristics of the exposures and consistent over time.

74. Exposures to central governments and central banks shall also include:

– exposures to territorial autonomies and local government units or public administrative bodies which are assigned the same risk weight in accordance with Sections 42 and 43 of this Decision as the exposures to the central government of the jurisdiction where they are incorporated;

– exposures to multilateral development banks referred to in Section 44 of this Decision;

– exposures to international organisations which attract a risk weight of 0% under Section 45 of this Decision.

Within the corporate exposures class, banks shall separately identify specialised lending exposures, and/or exposures which possess the following characteristics:

1) the exposure is to a legal person which was created exclusively to finance and/or operate physical assets;
2) the contractual provisions give the bank a substantial degree of control over the assets and the income they generate;
3) the primary source of repayment of the obligation is the income generated by the assets, rather than the cash flows realised by the legal person referred to in item 1) of this paragraph in its overall operations, independently from these assets.

Specialised lending exposures shall include the following subclasses:

1) project finance – where repayment of obligations depends primarily or exclusively on the borrower's income generated by the project being financed;
2) financing of income-producing real estate – where repayment of obligations depends primarily or exclusively on the income generated by the real estate (i.e. under real estate rental or sale agreement);
3) object finance – where repayment of obligations depends primarily or exclusively on the borrower's income generated by the assets pledged as loan security;
4) commodities finance – where the repayment of obligations depends primarily or exclusively on the proceeds of the sale of the commodity.

75. The class of exposures to banks shall also include the following exposures:

– exposures to territorial autonomies and local government units which are not assigned the same risk weight as the exposures to the central government of the jurisdiction where they are incorporated;
– exposures to public administrative bodies which are not assigned the same risk weight as the exposures to the central government of the jurisdiction where they are incorporated;
– exposures to multilateral development banks which are not assigned a 0% risk weight;
– exposures to financial institutions which are treated as exposures to banks in accordance with Section 46 of this Decision.

76. The bank may assign individual exposures to the retail exposures class if they meet the following criteria:

1) the exposure is to a natural person (including a farmer or an entrepreneur) or to a small and medium-sized enterprise, provided that the total exposure to a single obligor – small and medium-sized enterprise shall not exceed RSD 120,000,000;

2) the exposures are treated by the bank in its risk management consistently in the same or a similar manner;

3) in its risk management, the bank does not treat these exposures as individually as exposures in the corporate exposure class;

4) each of these exposures is not material and represents one of a significant number of similarly managed exposures.

The total exposure to a single obligor, within the meaning of paragraph 1 of this Section, shall be determined as the total exposure of the bank and its parent company and its subsidiaries to the obligor and persons related to the obligor, including exposures in default. The total exposure shall not include exposures secured by mortgages on residential property.

The bank may also include the present value of lease payments under lease agreements in the retail exposures class, if the lessee is a natural person.

77. The following exposures shall be assigned to the equity exposure class:

1) non-debt exposures conveying a subordinated, residual claim on the assets or income of the issuer;

2) debt exposures and other securities, interests, financial derivatives or other financial instruments, the economic substance of which is similar to the exposures specified in item 1) of this paragraph.

78. Any credit obligation not assigned to the exposure classes laid down in Section 73, paragraph 1, items 1), 2), 4), 5) and 6) of this Decision shall be assigned to the corporate exposures class referred to in item 3) of that paragraph.

79. The residual value of the lease asset shall be assigned to the other assets class laid down in Section 73, paragraph 1, item 7) of this Decision, except to the extent that residual value is already included in the lease exposures laid down in Article 113, paragraph 5 of this Decision.

80. The exposure from providing credit protection for a basket of exposures under terms that the nth default among the exposures shall trigger payment shall be assigned to the same exposure class laid down in Section 73, paragraph 1 of this Decision to which the exposures in the basket would be assigned, except if the individual exposures in the basket would be

assigned to various exposure classes, in which case, the exposure shall be assigned to the corporate exposures class laid down in item 3) of that paragraph.

e) Conditions for sequential introduction of the IRB Approach

81. Banks, their parent companies and their subsidiaries shall implement the IRB Approach for all exposures, unless they have received the consent of the National Bank of Serbia for permanent partial use of the Standardised Approach referred to in Section 83 of this Decision.

In its consent to use the IRB Approach, the National Bank of Serbia may allow:

– sequential implementation of this approach across the different exposure classes referred to in Section 73 of this Decision, within the same business unit and across different business units; a business unit means any separate organisational units, legal entities, business lines or geographical locations,

– sequential transition from a FIRB to an AIRB Approach for exposures to central governments and central banks, companies and banks.

In the case of the retail exposures class referred to in Section 73, paragraph 1, item 4) of this Decision, the implementation of the IRB Approach may be carried out sequentially across the categories of exposures to which the different correlations in Section 122 of this Decision correspond.

The National Bank of Serbia shall determine the time period over which a bank, its parent company and their subsidiaries shall be required to implement the IRB Approach, which shall be appropriate on the basis of the nature and scale of the activities of the bank, its parent company and their subsidiaries, and the number and nature of rating systems to be implemented.

The bank shall implement the IRB Approach in accordance with the conditions specified in the consent of the National Bank of Serbia to use this approach, which shall be defined such that they ensure that the flexibility of sequential implementation is not used selectively for the purposes of reducing capital requirements.

During the period referred to in paragraph 4 of this Section, the bank shall retain its ability to calculate capital requirements using the Standardised Approach for all exposures until the National Bank of Serbia notifies the bank that the bank is completing the implementation of the IRB Approach in accordance with the plan.

A bank granted consent to use the IRB Approach for any exposure class shall use the IRB Approach for the equity exposure class laid down in Section 73, paragraph 1, item 5) of this Decision, except where the bank is granted consent to apply permanent partial use laid down in Section 83 of this Decision to such exposures, and to the other assets class laid down in Section 73, paragraph 1, item 7) of this Decision.

f) Conditions to revert to the use of less sophisticated approaches

82. A bank that uses the IRB Approach for the calculation of risk-weighted exposure amounts for a particular exposure class or type of exposure may start using instead the Standardised Approach laid down in Part 1 of this Chapter for justifiable reasons only and subject to consent of the National Bank of Serbia.

A bank that uses the AIRB Approach for the calculation of risk-weighted exposure amounts may start using instead the FIRB Approach for justifiable reasons only and subject to consent of the National Bank of Serbia.

When applying for the consent referred to in paragraphs 1 and 2 of this Section, the bank shall submit documentation to the National Bank of Serbia demonstrating the existence of the justifiable reasons referred to in these paragraphs, as well as that the use of the standardised or FIRB Approach, as applicable, is not proposed in order to reduce the capital requirements of the bank, that is necessary on the basis of nature and complexity of the bank's total exposures of this type, and would not have a material adverse impact on the solvency of the bank or its ability to manage risk effectively.

The application of paragraphs 1 and 2 of this Section is subject to the conditions for sequential implementation of the IRB Approach under Section 81 of this Decision and for permanent partial use under Section 83 of this Decision.

g) Conditions for permanent partial use of the IRB Approach

83. Where this has been specified in the consent to use the IRB Approach at the bank's request, the bank may apply the Standardised Approach laid down in Part 1 of this Chapter to one or more of the following exposures:

1) exposures to central governments and central banks – where the number of counterparties in this exposure class is not material and it would be unnecessarily burdensome for the bank to implement a rating system for those counterparties;

2) exposures to banks – under the conditions referred to in item 1) of

this paragraph;

3) exposures to less significant business units, as well as exposure classes and types of exposures that are immaterial in terms of size and perceived risk profile;

4) exposures to the Republic of Serbia or an EU member state, and their territorial autonomies and local government units and public administrative bodies provided that:

– there is no difference in risk between these exposures,

– exposures to the central government are assigned a 0% risk weight under Sections 41 and 461 of this Decision;

5) exposures of a bank to a counterparty which is its parent company, its subsidiary or a subsidiary of its parent company or a company linked by unified management which is a bank, financial holding company, mixed financial holding company, financial institution, asset management company or ancillary services company subject to appropriate regulations governing the operation of such entities and the supervision of such operations;

6) equity exposures to legal persons assigned a 0% risk weight under Part 1 of this Chapter, including public administrative bodies;

7) equity exposures incurred under government programmes to promote specified sectors of the economy that provide significant subsidies for the investment to the bank and involve an appropriate form of government oversight of the implementation of such programmes (including restrictions on the equity investments), where such exposures do not make up more than 10% of capital of the bank or the banking group, as applicable;

8) state guarantees and counter guarantees laid down in Section 164, paragraph 3 of this Decision.

For the purposes of this Section, the equity exposure class shall be material if its aggregate value, excluding equity exposures referred to in paragraph 1, item 6) of this Section, exceeds on average over the preceding year 10% of the capital of the bank or the banking group, or 5% of such capital where the number of those equity exposures is less than 10.

2. Minimum conditions for the application of the IRB Approach

a) Internal rating system

84. An internal rating system shall include:

1) methods, processes, activities and controls of data collection relevant for credit risk assessment;

2) IT systems that support the assessment of credit risk;

3) the assignment of exposures to rating grades or pools; and

4) the methods and quantification of default and loss estimates for a certain type of exposures.

The obligor grade means a risk category within the obligor rating scale of a rating system, to which exposures to obligors are assigned on the basis of a specified and distinct set of rating criteria, from which estimates of PDs are derived.

The facility grade means a risk category within a rating system's facility scale, to which exposures by facility are assigned on the basis of a specified and distinct set of rating criteria, from which own estimates of LGD are derived.

Where a bank uses multiple rating systems, it shall document the rationale for selecting the criteria for assigning exposures by obligor or transaction to a rating system, and the selected criteria shall appropriately reflect the level of risk.

In its internal acts, the bank shall lay down the manner in which it shall carry out periodical review of the criteria and processes for assigning exposures by obligor or transaction to appropriate rating systems, to determine whether they remain appropriate for the current portfolio of the bank and external conditions.

Where a bank uses direct estimates of risk parameters for individual obligors or exposures, these may be seen as estimates assigned to grades on a continuous rating scale. A direct estimate, for the purposes of this Section, shall mean the estimate which the bank obtains directly from the model it uses, for each individual borrower or transaction.

Structure of rating systems

85. A bank shall ensure that the structure of rating systems for exposures to central governments and central banks, companies and banks shall comply with the following requirements:

1) a rating system shall reflect both obligor and transaction risk, i.e. it shall capture all their characteristics;

2) a rating system shall have an obligor rating scale which reflects exclusively the risk of obligor default. The obligor rating scale shall have a minimum of seven grades for non-defaulted obligors and at least one grade for defaulted obligors;

3) a bank shall clearly document the relationship between individual obligor grades and the criteria used to distinguish the level of default risk;

4) where portfolios are concentrated in a particular market segment and a particular PD range, a bank shall have enough obligor grades within that range to avoid undue concentrations of obligors in a particular grade. In case of such concentrations, the bank shall provide evidence that the obligor grade covers an appropriate PD band and that the default risk posed by all obligors in the grade falls within that band;

5) if a bank applies an AIRB Approach, its rating system shall incorporate a distinct facility rating scale which exclusively reflects LGD related transaction characteristics. The facility grade definition shall include both a description of how exposures are assigned to the grade and of the criteria used to distinguish the level of risk across grades;

6) where there are significant concentrations within a single facility grade, the bank shall provide evidence that the facility grade covers an adequate LGD band and that the risk posed by all exposures in the grade falls within that band.

By derogation from paragraph 1 of this Section, banks using the method set out in Section 119 of this Decision for assigning risk weights for specialised lending exposures are exempt from the requirement to have an obligor rating scale which reflects exclusively quantification of the risk of obligor default for these exposures. These banks shall have for these exposures at least four grades for non-defaulted obligors and at least one grade for defaulted obligors.

A bank shall ensure that the structure of rating systems for retail exposures shall comply with the following requirements:

1) rating systems shall reflect both obligor and transaction risk, i.e. it shall capture all their characteristics;

2) the level of risk differentiation shall ensure that the number of exposures in a given grade or pool is sufficient to allow for meaningful quantification and validation of risk parameters at the grade or pool level. The distribution of exposures and obligors across grades or pools, as applicable, shall be such as to avoid excessive concentrations;

3) the process of assigning exposures to rating grades or pools, as applicable, shall provide for a meaningful differentiation of sources of risk, for a grouping of similar exposures, and shall allow for accurate and consistent estimation of loss characteristics at grade or pool level, as applicable. The grouping of exposures in respect of purchased receivables shall reflect the conditions under which such receivables were extended and the heterogeneity of the seller’s customers.

Banks shall consider the following risk drivers when assigning exposures to grades or pools, as applicable:

1) obligor risk characteristics;

2) transaction risk characteristics, including product and collateral types. Banks shall explicitly address cases where several exposures benefit from the same collateral;

3) delinquency, except where a bank documents to the National Bank of Serbia that delinquency is not a material driver of risk for the underlying exposure.

Assignment of exposures to grades or pools

86. A bank shall have specific definitions, processes and criteria for assigning exposures to grades or pools within a rating system, as applicable, that comply with the following requirements:

1) the grade or pool definitions and the criteria for assignment shall be sufficiently clear and detailed to allow persons charged with assigning ratings to consistently assign exposures posing similar risk to the same grade or pool. This consistency shall exist across lines of business, business units and geographic locations;

2) the documentation of the rating process shall be clear to allow understanding of the method for assigning exposures to grades or pools, replication of the assignment process and evaluation of its appropriateness;

3) the criteria shall be consistent with the bank's lending standards and its policies for handling troubled obligors and facilities.

When assigning exposures to grades or pools, as applicable, a bank shall use all relevant current information that enables the bank to forecast the future characteristics of the exposure. The less information a bank has, the more conservative shall be its assignment of exposures to grades. If a bank uses an external rating as a primary factor determining an internal rating assignment, the bank shall ensure that it considers other relevant information.

87. For exposures to central governments and central banks, companies and banks, and for equity exposures where a bank uses the PD/LGD approach set out in Section 126 of this Decision, the assignment of exposures to grades shall be carried out in accordance with the following criteria:

1) each obligor shall be assigned to an obligor grade as part of the credit approval process;

2) where a bank applies the AIRB Approach, each exposure by type of facility shall also be assigned to a facility grade as part of the credit approval process;

3) banks using the method set out in Section 119 of this Decision for assigning risk weights for specialised lending exposures shall assign each of

these exposures to a grade in accordance with Annex 2 to this Decision;

4) each separate legal person to which the bank is exposed shall be separately rated. The internal acts of the bank shall regulate the manner of assigning individual obligors and members of the group of obligor's related persons to grades and the impact of their relatedness on their assignment;

5) all exposures to the same obligor shall be assigned to the same obligor grade, irrespective of any differences in the nature of each specific transaction. By derogation, the bank may assign separate exposures to a single obligor to multiple obligor grades in the following cases:

– if there is a transfer risk, this being dependent on whether the exposures are denominated in local or foreign currency,

– if the associated guarantees to an exposure may be reflected in an adjusted assignment of exposures to an obligor grade,

– if consumer protection, bank secrecy or other legislation prohibit the exchange of client data.

For retail exposures, each exposure shall be assigned to a grade or pool, as applicable, as part of the credit approval process.

For assignment of exposures to grades or pools, as applicable, banks shall regulate in their internal acts the situations in which inputs or outputs of the assignment process can be adjusted, and document data on adjustments made and all personnel responsible for approving these adjustments. Banks shall also analyse the characteristics of the exposures whose assignments have been adjusted. This analysis shall include all exposures whose rating has been adjusted by each individual responsible person.

Integrity of assignment process

88. A bank shall ensure that the process of assigning exposures to central governments and central banks, companies, banks, and for equity exposures to which the PD/LGD approach set out in Section 126 of this Decision applies, shall meet the following requirements of integrity:

1) periodic reviews of assignments shall be completed or approved by an organisational unit in the bank that is independent from other organisational units and does not participate in the making of decisions relating to the extension of the credit;

2) banks shall update the assigned obligor ratings at least annually, while the ratings of high risk obligors and problem exposures shall be subject to more frequent review, and shall have in place the procedures defining the frequency of rating reviews and the process of assigning new ratings if material information on the obligor or exposure becomes available;

3) banks shall have an effective process to obtain and update

information on obligor characteristics that affect PDs, and on transaction characteristics that affect LGDs and/or conversion factors.

A bank shall at least annually review obligor and facility assignments and/or review the loss characteristics and delinquency status of each identified pool of retail exposures. A bank shall also at least annually review in a representative sample the status of individual exposures within each pool as a means of ensuring that exposures continue to be assigned to the correct pool of exposures.

Use of models

89. If a bank uses statistical and other mathematical models and methods to assign exposures to rating grades or pools, the following requirements shall be met:

1) it shall demonstrate that the model has good predictive power and its use shall not result in capital requirements that do not correspond to the risk profile. The input variables shall form a high quality basis for the resulting predictions which shall not be biased;

2) the bank shall have in place a process for vetting data inputs, including in particular verification and/or assessment of data accuracy, completeness and appropriateness;

3) the bank shall demonstrate that the data used to build the model are representative of the portfolio of the bank's actual obligors or exposures, as applicable;

4) the bank shall have a regular cycle of model validation that includes monitoring of model performances and stability, review of model characteristics and back testing;

5) the bank shall complement the model by human judgement and human oversight to review model-based assignments and to ensure that the models are used appropriately, as well as to find and limit errors associated with weaknesses of the selected model. Human judgements shall take into account all relevant information not considered by the model. The bank shall document how human judgement and model results are to be combined.

Documentation of rating systems

90. The bank shall document the design and operational details of its rating systems. The documentation shall contain evidence of compliance with the minimum conditions for using the IRB Approach laid down in this Subpart, and in particular of assignment of exposures to grades, rating criteria, responsibilities of employees that assign exposures, frequency of assignment reviews, and management oversight of the rating process.

The bank shall document the rationale for and analysis supporting its choice of rating criteria. If there are any major changes in the internal risk rating process, the bank shall document such changes, including changes identified subsequent to the last review of the risk rating process by the National Bank of Serbia.

The bank shall have in place the procedures regulating the organisation of rating assignment, including the rating assignment process and the internal control structure.

The bank shall determine the definitions of default status and risk parameters, and ensure their consistency with the definitions set out in this Decision.

Where the bank employs statistical models in the rating process, it shall document their methodologies. This methodology shall:

1) provide a detailed outline of the theory, assumptions and/or mathematical and empirical basis of the assignment of estimates of risk parameters to grades, individual obligors, exposures, or pools, and a detailed outline of the data source(s) used to estimate the model;
2) provide a description of the statistical process used for validating the model, including out-of-time and out-of-sample performance tests;
3) indicate any circumstances under which the model does not work effectively.

A bank shall ensure that all requirements of this Decision relating to the rating system are met even where the bank is using a model or an element of the rating system obtained from a third party, where such third party retains copyright over the technology.

Data collection and storing

91. Banks shall collect and store data relating to internal ratings, including data that they are required to disclose in accordance with the decision regulating disclosure of data and information by banks.

For exposures to central governments and central banks, companies, banks, and for equity exposures to which the PD/LGD approach set out in Section 126 of this Decision is applied, banks shall collect and store:

1) complete rating histories on obligors and recognised guarantors;
2) the dates the ratings were assigned;
3) the key data and methodology used to derive the rating;
4) data on employees responsible for the rating assignment;

5) data on the identity of obligors and exposures that defaulted;

6) data on the date and circumstances of such defaults;

7) data on the PDs and realised default rates associated with rating grades and ratings migration.

Where a bank applies the FIRB Approach for exposures referred to in paragraph 1 of this Section, it shall collect and store data on comparisons of realised LGDs to the values set out in Section 108, paragraph 1 of this Decision and data on comparisons of realised conversion factors to the values set out in Section 113, paragraph 8 of this Decision.

Banks applying the AIRB Approach shall collect and store:

1) complete histories of data on the facility ratings and LGD and conversion factor estimates associated with each rating scale;

2) the dates the ratings were assigned and the estimates were done;

3) the key data and methodology used to derive the facility ratings and LGD and conversion factor estimates;

4) data on employees in charge of assigning the facility rating and employees in charge of providing LGD and conversion factor estimates;

5) data on the estimated and realised LGDs and conversion factors associated with each defaulted exposure;

6) data on the LGDs of the exposure before and after evaluation of the effects of a guarantee or credit derivative, for those banks that reflect the credit risk mitigating effects of guarantees or credit derivatives through LGDs;

7) data on the components of loss for each defaulted exposure.

Banks applying the IRB Approach for retail exposures shall collect and store:

1) data used in the process of allocating exposures to grades or pools, as applicable;

2) data on the estimated PDs, LGDs and conversion factors associated with grades or pools of exposures;

3) data on the identity of obligors and exposures that defaulted;

4) for defaulted exposures, data on the grades or pools to which the exposure was assigned over the year prior to default and the realised outcomes on LGDs and conversion factors;

5) data on loss rates for qualifying revolving retail exposures.

Stress tests

92. The bank shall have in place sound stress testing processes in the assessment of its capital adequacy. Stress testing shall involve identifying possible events or future changes in economic conditions that could have

unfavourable effects on a bank's exposure to credit risk and assessment of the bank's ability to withstand such changes.

A bank shall carry out the stress testing process at least annually and more frequently as needed, to assess the effect of certain specific conditions on its capital requirement for credit risk. The stress tests shall be chosen by the bank, subject to supervision of the National Bank of Serbia. The tests shall be based on meaningful and cautious assumptions and consider the effects of economic recession scenarios. A bank shall assess migration in its ratings under the stress test scenarios. Stressed portfolios shall contain the vast majority of a bank's total exposures.

Banks applying the adjustments set out in Section 118, paragraph 3 of this Decision shall consider as part of their stress testing framework the impact of a deterioration in the credit quality of credit protection providers, in particular the impact of protection providers falling outside the eligibility criteria laid down by this Decision.

b) Risk quantification

Definition of default

93. A default shall be considered to have occurred with regard to a particular obligor when either of the following have taken place:

– the bank considers that the obligor is unlikely to pay its credit obligations to the bank, the parent company or any of its subsidiaries in full, without taking into consideration the possibility of realising credit protection instruments;

– the obligor is past due more than 90 days on any material obligation to the bank, the parent company or any of its subsidiaries.

In the case of retail exposures, banks may apply the definition of default laid down in paragraph 1 of this Section at the level of an individual exposure rather than at the level of the borrower.

When assessing the fulfilment of the conditions referred to in paragraph 1, indent one of this Section, the bank shall consider in particular the following circumstances:

1) the bank puts interest income and commission and fees income owed by the borrower on non-accrued status in the income statement;

2) the bank recognises a specific adjustment for credit risk resulting from a significant perceived decline in credit quality subsequent to the bank taking on the exposure;

3) the material loss created by the sale of the obligation;

4) distressed restructuring of the obligation where this results in a diminished obligation caused by the write-off of a part of debt, or postponement of repayment of principal, interest or fees. This includes, in the case of equity exposures assessed under a PD/LGD approach, distressed restructuring of the equity itself;

5) the bank has submitted a proposal for the obligor's bankruptcy in respect of an obligor's outstanding credit obligation to the bank or the parent company, or any of its subsidiaries, as applicable;

6) bankruptcy proceedings were initiated in respect of the obligor, where this would result in avoidance or delayed repayment of an obligation to the bank or its parent company, or any of its subsidiaries, as applicable.

When assessing the fulfilment of the conditions referred to in paragraph 1, indent two of this Section, an obligor shall be considered to be past due in terms of:

1) current account overdrafts, for which days past due commence from the day an obligor has breached an advised limit, when its approved limit is brought down below the current outstandings, or when it has drawn credit from the current account without authorisation and the underlying amount is material;

2) credit cards, for which days past due commence on the minimum payment due date.

The National Bank of Serbia shall prescribe by guidelines the manner of calculating a materially significant amount.

Banks shall have internal acts, applied consistently over time and in line with the bank's risk management and decision making processes, regulating the counting of days past due, particularly for revolving exposures, instances of granting extensions of repayment periods, deferrals of principal and/or interest payments, renewals of exposures and netting.

For the purposes of paragraph 4, item 1) of this Section, an advised limit comprises any limit about which the obligor has been informed.

Banks that use external data that are not consistent with the definition of default shall demonstrate they have made appropriate adjustments to these data to achieve equivalence with the definition of default.

If the bank establishes that conditions for default are no longer met, it shall rate the obligor or facility as it would for a non-defaulted exposure. Where the definition of default is subsequently triggered, another default would be deemed to have occurred.

The National Bank of Serbia shall prescribe by guidelines the cases in which it shall be considered that the default status has occurred.

Overall requirements for estimation of risk parameters

94. In estimating the risk parameters to be associated with rating grades and pools, banks shall apply the following requirements:

1) a bank's own estimates of the risk parameters PD, LGD, conversion factor and EL shall incorporate all relevant data, information and methods based on the bank's experience and empirical evidence, and not based purely on subjective judgement. The estimates shall be plausible, understandable and shall be based on the material drivers of the respective risk parameters. The less data a bank has, the more conservative it shall be in its estimation (the margin of conservatism shall be larger);

2) a bank shall be able to provide a breakdown of its historical loss experience in terms of default frequency, LGDs, conversion factors, or losses where EL estimates are used, identifying the factors it sees as material drivers of the respective risk parameters. The bank shall demonstrate that its estimates of risk parameters are representative of long run experience;

3) a bank shall take into account any changes in the lending practice or the process for pursuing recoveries over the observation periods referred to in Section 95, paragraph 1, item 8) and paragraph 2, item 5), Section 96, paragraph 1, item 10) and paragraph 3, and Section 97, paragraphs 2 and 4 of this Decision, and its estimates shall timely reflect the implications of technical advances, new data and other information. Banks shall review their estimates when new information comes to light but at least on an annual basis;

4) the population of exposures represented in the set of data used for estimation of risk parameters, the lending standards used when the data were generated and other relevant characteristics shall be comparable with those of the bank's exposures and standards. The bank shall demonstrate that economic or market conditions that underlie the data are relevant to current and foreseeable conditions. The number of exposures in the sample and the data time series used for quantification shall be sufficient to provide the bank with confidence in the accuracy and adequacy of its estimates;

5) for purchased receivables the estimates shall reflect all relevant information available to the bank regarding the quality of the these receivables, including data for similar pools of exposures provided by the seller, by other external sources or by the bank itself. The bank shall evaluate any data relied upon which is provided by the seller;

6) a bank shall add to its estimates of risk parameters a margin of conservatism that is related to the expected range of estimation errors. Where methods and data are considered to be less satisfactory and the

expected range of errors is larger, the margin of conservatism shall be larger.

Where banks use different estimates of risk parameters for the calculation of risk weights and for internal purposes, the bank shall document these estimates and demonstrate that their use is reasonable.

Where a bank uses data pooled across several banks for the estimation of risk parameters, it shall meet the following requirements:

1) the rating systems and criteria of other banks in the pool are similar with its own;
2) the pool is representative of the portfolio for which the pooled data are used;
3) the pooled data is used consistently and continuously over time by the bank for its estimates;
4) the bank shall remain responsible for the integrity of its rating systems;
5) the bank shall maintain sufficient in-house understanding of the rating systems it uses, including the ability to effectively monitor and audit the rating process.

Requirements specific to PD estimation

95. In quantifying the risk parameters to be associated with rating grades and pools, banks shall apply the following requirements specific to PD estimation to exposures to central governments and central banks, companies, banks and for equity exposures where a bank uses the PD/LGD approach set out in Section 126 of this Decision:

1) banks shall estimate PDs by each obligor grade from long run averages of one-year default rates. PD estimates for obligors that are highly leveraged or for obligors whose assets are predominantly traded assets shall reflect the performance of the underlying assets in stressed conditions;
2) for purchased corporate receivables banks may estimate the expected loss by obligor grade from long run averages of one-year realised default rates;
3) if a bank uses long run average estimates of PDs and LGDs for purchased corporate receivables based on an estimate of expected loss, the process for estimating total losses shall meet the overall standards for risk quantification set out in this Subpart and the outcome of the estimation shall be consistent with the provisions of Section 96, paragraph 1, item 1) of this Decision;
4) banks may use PD estimation techniques only with supporting analyses. In combining the results of the different techniques and in making adjustments for limitations of techniques and information used, banks shall

recognise the importance of judgmental considerations of persons having adequate knowledge and experience with regard to these techniques;

5) to the extent that a bank uses its own historical data on default experience for the estimation of PDs, it shall demonstrate in its analysis that its estimates are reflective of relevant policies and procedures and of any differences in the rating system that generated the data and the current rating system. Where these policies and procedures or rating systems have changed, the bank shall add a greater margin of conservatism in its estimate of PDs;

6) to the extent that a bank maps its internal grades to the scale used by an assessment institution and then attributes in the same way the default rates observed for the assessment institution's grades to the bank's grades, mappings shall be based on a comparison of internal rating criteria to the criteria used by the institution and on a comparison of the internal and external ratings of any common obligors. The criteria of the assessment institution underlying the data used for quantification shall be oriented to default risk only and not reflect transaction risk characteristics. The bank shall determine the method of mapping and take all necessary measures to avoid biases or inconsistencies in the mapping process or underlying data and shall document the basis for the mapping, particularly the analysis that includes a comparison of the default definitions used by the bank and the assessment institution, subject to the requirements of Section 93 of this Decision;

7) to the extent that a bank uses statistical default prediction models it is allowed to estimate PDs as the average of default-probability estimates for individual obligors in a given grade, and shall meet the standards specified in Section 89 of this Decision;

8) irrespective of whether a bank is using data from its operations (internal data), data from the external environment (external data), pooled data sources, or a combination of the three, the bank shall base its PD estimation on the underlying observation period of at least five years for at least one source, or on a longer observation period if relevant data for a longer period are available. The National Bank of Serbia may grant consent to the bank to use relevant data covering a period of two years at the time of implementing the IRB Approach. The observation period shall increase by one year each year until relevant data cover a period of five years.

For PD estimation for retail exposures, the bank shall meet the following requirements:

1) banks shall estimate PDs by each obligor grade or pool of exposures, as applicable, from long run averages of one-year default rates;

2) banks may also derive PD estimates from realised losses and appropriate estimates of LGDs;

3) banks shall use internal data for assigning retail exposures to rating grades or pools, as applicable, as the primary source of information for

estimating risk parameters. Banks may also use external data, including pooled data or statistical models for quantification, if they demonstrate the existence of strong links between:

– the bank's process of assigning retail exposures to rating grades or pools, as applicable, and the process used by the external data source,

– the bank's internal risk profile and external data.

4) if a bank derives long run average estimates of PD and LGD for retail from an estimate of expected losses, the process for estimating total losses shall meet the overall standards for risk quantification set out in this Subpart and the outcome shall be consistent with Section 96, paragraph 1, item 1) of this Decision;

5) irrespective of whether a bank is using internal data, external data, pooled data sources, or a combination of the three, the bank shall base its PD estimation on the underlying observation period of at least five years for at least one source, or on a longer observation period if relevant data for a longer period are available, but need not give equal importance to historic data if it can be demonstrated that more recent data is a better predictor of loss rates. The National Bank of Serbia may grant consent to the bank to use relevant data covering a period of two years at the time of implementing the IRB Approach. The observation period shall increase by one year each year until relevant data cover a period of five years;

6) over the life of retail exposures, banks shall identify and analyse expected changes of risk parameters due to seasoning effects.

For purchased retail receivables, banks shall use all available relevant data sources.

Requirements specific to own-LGD estimates

96. In quantifying the risk parameters to be associated with rating grades and pools, banks shall apply the following requirements specific to own-LGD estimates:

1) banks shall estimate LGDs by facility grade or pool on the basis of the average realised LGDs by each facility grade or pool using all observed defaults within the data sources (default weighted average);

2) banks shall use LGD estimates that are appropriate for an economic recession if those are more conservative than the long-run average. To the extent a rating system is expected to deliver realised LGDs at a constant level by grade or pool over time, banks shall make adjustments to their estimates of risk parameters by grade or pool to limit the capital impact of an economic recession;

3) a bank shall consider the extent of any dependence between the risk of the obligor with that of the collateral and/or collateral provider. Cases where there is a significant degree of dependence shall be addressed in a

conservative manner;

4) currency mismatches between the underlying exposure and the collateral shall be treated extremely conservatively in the bank's own assessment of LGD;

5) to the extent that LGD estimates take into account the existence of collateral, these estimates shall not solely be based on the collateral's estimated market value, but shall take into account the effect of the potential inability of banks to expeditiously gain control of their collateral and liquidate it;

6) to the extent that LGD estimates take into account the existence of collateral, banks shall establish procedures and processes for collateral management and meet the requirements relating to collateral set out in Part 3, Subpart 3 of this Chapter;

7) to the extent that a bank recognises the effect of collateral for determining the exposure value for counterparty risk by applying the Standardised Method or the Internal Model Method in accordance with Part 5 of this Chapter, any amount expected to be recovered from the collateral shall not be taken into account in the LGD estimates;

8) for the exposures already in default, the bank shall use as LGD the sum of its best estimate of expected loss of the bank for each exposure (EL_{BE}) given current economic circumstances and exposure status and possible additional unexpected losses during the recovery period;

9) to the extent that unpaid fees have been recorded in the bank's income statement, they shall be added to the bank's measure of exposure and loss;

10) for exposures to central governments and central banks, companies and banks, estimates of LGD shall be based on historical data over a minimum of five years, with the observation period increasing by one year each year until a period of seven years is reached, for at least one data source. If the available observation period spans a longer period for any source, and the data are relevant, the bank shall use this longer period.

For retail exposures, banks may do the following:

1) derive LGD estimates from realised losses and appropriate estimates of PDs;

2) reflect future drawings in their estimates of either conversion factors or LGD;

3) for purchased retail receivables use relevant external and internal reference data to estimate LGD.

For retail exposures, estimates of LGD shall be based on historical data over a minimum of five years. A bank need not give equal importance to historical data if it is able to demonstrate that more recent data are a better predictor of loss rates. By derogation, banks may use relevant data covering

a period of two years, if this is specified in the consent to use the IRB Approach. The observation period shall increase by one year each year until relevant data cover a period of five years.

Requirements specific to own-conversion factor estimates

97. In quantifying the risk parameters to be associated with rating grades and pools, banks shall apply the following requirements specific to conversion factor estimates:

1) banks shall estimate conversion factors by facility grade or pool on the basis of the average realised conversion factors by each facility grade or pool using all observed defaults within the data sources (the default weighted average);

2) banks shall use conversion factor estimates that are appropriate for an economic recession if those are more conservative than the long-run average. To the extent a rating system is expected to deliver realised conversion factors at a constant level by grade or pool over time, banks shall make adjustments to their estimates of risk parameters by grade or pool to limit the capital impact of an economic recession;

3) banks' estimates of conversion factors shall reflect the possibility of additional drawings by the obligor up to and after the time a default event is triggered. The conversion factor estimate shall incorporate a larger margin of conservatism where a strong positive correlation can reasonably be expected between the default frequency and the magnitude of conversion factor;

4) in arriving at estimates of conversion factors banks shall consider their policies and procedures relating to accounting policies and monitoring of the collection process, as well as their ability and willingness to prevent further drawings in circumstances short of payment default (e.g. contract violations or other technical default events);

5) banks shall have adequate systems and procedures in place to monitor exposure amounts, current outstandings against committed exposures and changes in outstandings per obligor and per grade. Banks shall be able to monitor outstanding balances on a daily basis;

6) if banks use different estimates of conversion factors for the calculation of risk-weighted exposure amounts and internal purposes, the use of such estimates shall be documented and demonstrated as reasonable.

For exposures to central governments and central banks, companies and banks, estimates of conversion factors shall be based on historical data over a minimum of five years. The observation period shall increase by one year each year until relevant data cover a period of seven years, for at least one data source. If the available observation period spans a longer period for any source, and the data are relevant, the bank shall use this longer period.

For retail exposures, banks may reflect future drawings in their estimates of conversion factors, if they did not already reflect them in their LGD estimates.

For retail exposures, estimates of conversion factors shall be based on historical data over a minimum of five years. A bank need not give equal importance to historical data if it is able to demonstrate that more recent data are a better predictor of loss rates. By derogation, banks may use relevant data covering a period of two years, if this is specified in the consent to use the IRB Approach. The observation period shall increase by one year each year until relevant data cover a period of five years.

Requirements for assessing the effect of guarantees and credit derivatives where own estimates of LGD are used

98. Where own estimates of LGD are used in relation to eligible guarantees and guarantors, banks shall have clearly specified and detailed criteria for the selection of guarantors they recognise for the calculation of risk-weighted exposure amounts, and shall apply the provisions of Sections 86 to 88 of this Decision to guarantors.

The guarantee shall be evidenced in writing, non-cancellable on the part of the guarantor, in force until the guaranteed obligation is satisfied in full and legally enforceable pursuant to applicable law. Where the bank intends to accept guarantees prescribing conditions under which the guarantor may not be obliged to perform (conditional guarantees), it shall specify this in the application for consent to use the IRB Approach, present evidence that the criteria for the assignment of exposures to which the conditional guarantee refers adequately address any potential reduction in credit protection effects, and set out detailed requirements for accepting and monitoring these guarantees.

Banks shall have clearly specified criteria for adjusting rating grades, pools of exposures or own LGD estimates. In the case of retail exposures and purchased receivables, it shall also specify appropriate applicable criteria for allocating exposures to rating grades or pools of exposures, to reflect the impact of guarantees for the calculation of risk-weighted exposure amounts. These criteria shall comply with the requirements set out in Sections 86 to 88 of this Decision and shall address the guarantor's ability and willingness to perform under the guarantee, the likely timing of any payments from the guarantor, the degree to which the guarantor's ability to perform under the guarantee is correlated with the obligor's ability to repay, and the extent of the residual risk.

The minimum requirements for guarantees set out in paragraphs 1 to 3 of this Section shall apply also for single-name credit derivatives. In relation to a mismatch between the exposure protected by the credit derivative and the reference obligation of the credit derivative or the obligation used for determining whether a credit event has occurred, the bank shall apply the provisions of Section 165, paragraph 3 of this Decision. For retail exposures and purchased receivables, the provisions of Section 165, paragraph 3 of this Decision shall also apply to the process of allocating exposures to rating grades or pools. The adjustment criteria shall address the payout structure of the credit derivative and conservatively assess the impact this has on the level and timing of recoveries. When using credit derivatives, the bank shall consider the extent to which the residual risk remains.

The requirements set out in paragraphs 1 to 4 of this Section shall not apply for guarantees provided by central governments and central banks, banks and companies which meet the requirements laid down in Section 149, paragraph 1, item 7) of this Decision if the bank has received consent of the National Bank of Serbia to apply the Standardised Approach to credit risk for exposures to such entities pursuant to Sections 81 and 83 of this Decision. In this case, the bank shall apply the requirements of Part 3 of this Chapter.

If it uses guarantees and warranties according to which exposures are classified as retail exposures, the bank shall apply the requirements set out in paragraphs 1 to 3 of this Section to the assignment of exposures to rating grades or pools, and the estimation of PD.

Requirements for purchased receivables

99. In quantifying the risk parameters to be associated with rating grades or pools for purchased receivables, banks shall ensure the conditions laid down in this Section are met.

The bank shall ensure in the receivables purchase contract that under all foreseeable circumstances the bank has ownership and control of all cash receipts from the receivables.

When the obligor makes payments directly to a seller or servicer, the bank shall verify regularly that payments are executed (forwarded) completely and within the contractually agreed terms.

Banks shall have procedures to ensure that receivables and ownership over cash receipts in this respect is protected against bankruptcy and liquidation or other legal challenges that could materially delay the lender's ability to liquidate or assign the receivables or influence control over cash

receipts.

The bank shall monitor both the quality of the purchased receivables and the financial condition of the seller and servicer, and:

1) assess the correlation among the quality of the purchased receivables, on the one hand, and the financial condition of both the seller and servicer, on the other hand, and have in place policies and procedures that provide adequate safeguards to protect against any contingencies, including the assignment of an internal rating for each seller and servicer;

2) have clear and effective policies and procedures for determining seller and servicer eligibility. The bank shall conduct and document periodic reviews of sellers and servicers in order to verify the accuracy of reports from the seller or servicer, detect fraud or operational weaknesses, and verify the quality of their business policy and practice and collection procedures;

3) assess the characteristics of the purchased receivables pools, including payment terms, over-advances, arrears, bad debts, and bad debt allowances;

4) have adequate policies and procedures for monitoring single-obligor concentrations both within and across purchased receivables pools;

5) ensure that it receives from the servicer timely and detailed reports of receivables ageings and dilutions to ensure compliance with eligibility criteria and policies and procedures governing purchased receivables, and provide adequate monitoring and verification of the terms of sale of the receivables and the manner in which the seller monitors receivables dilution.

The bank shall have a system for detecting deteriorations in the seller's financial condition and purchased receivables quality at an early stage, and for addressing emerging problems pro-actively. In particular, the bank shall have clear and effective policies, procedures, and information systems to monitor contractual violations, and adequate procedures for initiating appropriate legal actions and dealing with problem purchased receivables.

The bank shall adopt and apply internal acts governing the control of purchased receivables, credit, and cash, which shall specify all material elements of the purchased receivables, including discounts, eligible collateral, necessary documentation, concentration limits, and the way cash receipts are to be handled. These elements shall take appropriate account of all material factors, including the seller and servicer's financial condition, risk concentrations, and trends in the quality of the purchased receivables and the seller's customer base. The bank shall ensure that funds are advanced only against specified supporting collateral and all necessary documentation.

The bank shall have effective processes for assessing compliance of receivables purchase with internal acts. The processes shall include at least

regular audits of all phases of the bank's receivables purchase process, verification whether the assessment of the seller's and the servicer's financial condition was carried out separately from periodical reviews of the seller and the servicer, and evaluations of back office operations of the bank, with particular focus on qualifications, experience, staffing levels, and assessment of systems enabling automation of the receivables purchase process.

c) Validation of internal estimates

100. Banks shall validate their internal estimates subject to the following requirements:

1) banks shall have adequate systems in place to validate the accuracy and consistency of rating systems and processes, and the estimation of all relevant risk parameters. The bank shall demonstrate that the internal validation process enables it to assess the performance of internal rating and risk estimation systems consistently and meaningfully;

2) banks shall regularly compare realised default rates with estimated PDs for each grade and, where realised default rates are outside the expected range for that grade, banks shall specifically analyse the reasons for the deviation. Banks using own estimates of LGD and/or conversion factors shall also perform analogous analysis for these estimates. Such comparisons shall make use of historical data that cover as long a period as possible. The bank shall document the methods and data used in such comparisons. All these analyses and documentation shall be updated at least annually;

3) banks shall also use other quantitative validation tools and comparisons with data from external sources. These analyses shall be based on data that are appropriate to the portfolio, are updated regularly, and cover a relevant observation period. A bank's internal assessment of the performance of its models shall be based on as long a period as possible;

4) banks shall ensure continuous and consistent use of methods and data used for quantitative validations and document their changes taking into account data sources and periods covered;

5) banks' internal acts shall set up clearly defined standards for situations where deviations in realised PDs, LGDs, conversion factors, total losses, and expected losses (where used), from expectations, become significant enough to call the validity of the estimates into question. These standards shall take account of business cycles and similar systematic variability that may affect the occurrence of default. Where realised values continue to be higher than expected values, banks shall revise estimates upward to reflect the realised values.

d) Minimum requirements for equity exposures under the IRB Approach

Capital requirements and risk quantification

101. For the purpose of calculating capital requirements for equity exposures, banks shall meet the following standards:

1) the bank's estimate of potential loss shall take due account of adverse market movements relevant to the long-term risk profile of the bank's equity holdings;

2) the data used to obtain return distributions from equity holdings shall reflect the longest sample period for which data is available and meaningful in representing the risk profile of the bank's specific equity exposures and shall represent an adequate basis for providing conservative, statistically reliable and robust loss estimates that are not based primarily on subjective considerations;

3) the bank has demonstrated that the employed scenario analyses of market shocks provide a conservative estimate of potential losses over a relevant long-term business cycle;

4) the bank shall combine empirical analysis of available data with adjustments based on a large variety of factors in order to attain more realistic and comprehensive model outputs;

5) in constructing Value at Risk (VaR) models estimating potential quarterly losses, banks may use quarterly data or convert shorter horizon period data to a quarterly equivalent using an analytically appropriate method supported by empirical evidence and through a well-developed and documented process and analysis. Such an approach shall be applied conservatively and consistently over time. Where only limited relevant data is available the bank shall add appropriate margins of conservatism;

6) the models used shall capture adequately all of the material risks embodied in equity returns including both the general market risk and the specific risk exposure of the bank's equity portfolio. The internal models shall adequately explain historical price variations, capture both the magnitude and changes in the composition of potential investment concentrations, and be applicable even in adverse market environments. The population of risk exposures represented in the data used for estimation shall be closely matched to or at least comparable with those of the bank's equity exposures;

7) the internal model shall be appropriate for the risk profile and complexity of a bank's equity portfolio. Where a bank has material equity holdings with values that are non-linear in nature, the internal models shall be designed to capture appropriately the risks associated with such holdings;

8) mapping of individual positions to market indices and risk factors shall be plausible, based on adequate assumptions and clear;

9) banks shall demonstrate through empirical analyses the appropriateness of risk factors, including their ability to cover both general and specific risks;

10) the estimates of the return volatility of equity exposures shall incorporate all relevant and available data, information, and methods. Data that were the subject of internal audit or data from external sources (including pooled data) shall be used;

11) rigorous and comprehensive stress tests shall be in place.

Risk management process and internal controls

102. In using internal models for calculating capital requirements for equity exposures, and in order to ensure the integrity of internal models and modelling processes, banks shall adopt and implement internal acts and establish control processes that shall regulate in particular:

1) full integration of the internal models into the overall management information system of the bank and in the management of the non-trading book equity portfolio. Internal models shall be fully integrated if they are used in measuring and assessing equity portfolio performance including the risk-adjusted performance, allocating economic capital to equity exposures and evaluating overall capital adequacy and the investment management process;

2) establishing of management systems, procedures, and control functions for ensuring the periodic and independent review of all elements of the modelling process, including approval of model revisions, vetting of model inputs, and review of model results (e.g. direct verification and confirmation of results) which shall assess the accuracy, completeness, and appropriateness of model inputs and results and focus on both finding and limiting potential errors associated with known weaknesses and identifying unknown model weaknesses. Such reviews shall be conducted by an organisational unit or by a third party that did not participate in the process;

3) adequate systems and procedures for monitoring investment limits and the risk exposures of equity holdings;

4) the organisational units responsible for the design and application of the model shall be functionally independent from the organisational units responsible for managing individual investments;

5) parties responsible for any aspect of the modelling process shall be adequately qualified. Management shall allocate a sufficient number of skilled and competent staff to the modelling function.

Model validation and supporting documentation

103. Banks shall have adequate systems in place to validate the accuracy and consistency of their internal models and modelling processes. All material elements of the internal models and the modelling processes shall be documented.

Banks shall meet the following requirements with regard to validation and documentation of banks' internal models and modelling processes:

1) banks shall use the internal validation process to assess the performance of its internal models and modelling processes in a consistent and meaningful way;

2) the methods and data used for quantitative validation shall be consistent through time, and any changes in them relating to data sources and periods covered shall be appropriately documented;

3) banks shall regularly compare actual equity returns (computed using realised and unrealised gains and losses) with modelled estimates and document the methods and data used in such comparisons. The comparisons shall make use of historical data that cover as long a period as possible, and all analyses and documentation shall be updated at least annually;

4) banks shall make use of other quantitative validation tools and make comparisons with external data sources that are appropriate to the equity portfolio, are updated regularly, and cover a relevant observation period. Banks' internal assessments of the performance of their models shall be based on as long a period as possible;

5) banks shall have sound internal procedures for addressing situations where comparison of actual equity returns with the models estimates calls the validity of the estimates or of the models as such into question. These procedures shall take account of business cycles and similar systematic variability that may affect equity returns. All adjustments made to internal models in response to model reviews shall be documented and consistent with the bank's policies and procedures relating to model review;

6) the internal model and the modelling process shall be documented, including the responsibilities of all parties involved in the modelling, and the model approval and model review processes.

e) Governance and oversight

Governance

104. All material aspects of the bank's rating system and risk parameters estimation processes shall be approved by the managing board or an appropriate committee of the bank designated by the managing board and by the executive board. These bodies shall possess a general understanding of the designs and operations of these systems and detailed comprehension of the reports relating to these systems.

The executive board shall provide notice to the managing board or an appropriate committee referred to in paragraph 1 of this Section of any changes or exceptions from established policies that will materially impact the operations of the bank's rating systems. The executive board shall also have

a good understanding of the rating systems designs and operations and ensure, on an ongoing basis, that these systems are operating properly.

The executive board shall be regularly informed by the organisational unit in charge of credit risk control about the performance of the rating process, areas needing improvement and the status of efforts to improve previously identified deficiencies.

The bank’s management reporting shall include internal-ratings based analysis of the bank’s credit risk profile. The reporting shall include at least:

– risk profile by grade;
– migration across grades;
– estimation of the relevant risk parameters per grade;
– comparison of realised default rates against expectations and stress-test results;
– comparison of own estimates of realised LGDs and realised conversion factors against expectations and stress-test results, to the extent that a bank uses own estimates of these losses and factors.

The frequencies of reporting within the meaning of this Section shall depend on the significance and type of information and the level of the recipient.

Credit risk control

105. A bank shall ensure clear organisational separation and operational independence of the credit risk control function from the credit risk assumption function. The organisational unit whose remit includes credit risk control shall report directly to the bank's executive board; it shall be responsible for the rating system development or selection, implementation, oversight and performance, and shall regularly produce and analyse reports on the results of such system.

The responsibility of the organisational unit referred to in paragraph 1 of this Section shall include at least the following:

1) development or selection of rating systems, implementation, oversight and performance of the system;
2) testing and monitoring of rating grades and exposure pools;
3) production and analysis of reports relating to the bank's rating systems, particularly the results of these systems;
4) implementing the procedure to verify that grade and pool definitions are consistently applied across business units and geographic areas;
5) reviewing and documenting any changes to the rating process, including the reasons for changes;
6) reviewing the rating criteria to evaluate if they remain predictive of risk; changes to the rating process, criteria or individual rating parameters shall be documented;
7) active participation in the design or selection, implementation and validation of models used in the rating process;
8) oversight and supervision of models used in the rating process;
9) ongoing review and alterations to models used in the rating process.

By way of derogation from paragraph 2 of this Section, banks using pooled data in accordance with Section 94, paragraph 3 of this Decision may outsource the following tasks:

1) production of information relevant to testing and monitoring grades and pools;
2) production of reports of the bank's rating systems;
3) production of information relevant to a review of the rating criteria to evaluate if they remain predictive of risk;
4) documentation of changes to the rating process, criteria or individual rating parameters;
5) production of information relevant to ongoing review and alterations to all models used in the rating process.

Internal audit

106. Internal audit shall review at least annually the bank's rating systems and its operations, including the operations of the credit function and the estimation of PDs, LGDs, ELs and conversion factors. Areas of review shall include adherence to all applicable minimum requirements prescribed in this Subpart.

3. Estimation of risk parameters

a) Exposures to central governments and central banks, companies and banks

Probability of default (PD)

107. The PD of an exposure to a company or a bank shall be at least 0.03%.

The PD to a defaulting debtor shall be 100%.

For exposures in respect of purchased corporate receivables in respect of which a bank is not able to estimate PDs or a bank's PD estimates do not meet the minimum requirements for PD estimation set out in Subpart 2 of this Decision, the PDs for these exposures shall be determined in accordance with the following method:

– for senior claims on purchased corporate receivables, PD shall be the bank's estimate of EL divided by LGD for these receivables;

– for subordinated claims on purchased corporate receivables, PD shall be the bank's estimate of EL,

– if it uses the AIRB Approach for corporate exposures and may reliably and in a satisfactory way decompose its EL estimates for purchased corporate receivables into PDs and LGDs, a bank may use the PD estimate obtained in this manner.

A bank may take into account unfunded credit production in the PD in accordance with the provisions of Part 3 of this Chapter. For dilution risk, in addition to the eligible protection providers referred to in Section 149, paragraph 1, indent 7) of this Decision, the seller of the purchased receivable is eligible if the following conditions are met:

1) the company has a credit assessment by an eligible credit assessment institution associated with credit quality step 3 or above determined in the manner stipulated by Part 1 of this Chapter, or

2) the company, in the case of banks calculating risk-weighted exposure amounts and expected loss amounts under the IRB Approach, does

not have a credit assessment by an eligible credit assessment institution and is internally rated as having a PD equivalent to that associated with credit quality step 3 or above determined in the manner stipulated by Part 1 of this Chapter.

Banks using the AIRB Approach may recognise unfunded credit protection by adjusting PDs subject to Section 108, paragraph 3 of this Decision.

To calculate the amount of risk-weighted exposures for dilution risk of purchased corporate receivables, PD shall be set equal to the EL estimate for dilution risk. A bank using the AIRB Approach for corporate exposures and can decompose its EL estimates for dilution risk of purchased corporate receivables into PDs and LGDs in a manner which is reliable and satisfactory, may use the PD estimate obtained in this manner. Banks may recognise unfunded credit protection by adjusting PDs in accordance with the provisions of Part 3 of this Chapter.

By way of derogation from Section 149, paragraph 1, indent 7) of this Decision, companies that meet the conditions set out in paragraph 4 of this Section are considered eligible.

A bank using the AIRB Approach for dilution risk of purchased corporate receivables may recognise unfunded credit protection by adjusting PDs subject to Section 108, paragraph 3 of this Decision.

Loss given default (LGD)

108. A bank applying the FIRB Approach shall use the following LGD values:

1) senior exposures without eligible collateral – 45%;
2) subordinated exposures without eligible collateral – 75%;
3) in case of applying instruments of funded and unfunded credit protection in accordance with Part 3 of this Chapter – LGD adjusted in the manner stipulated in that Part;
4) for covered bonds eligible for the treatment set out in Section 57, paragraphs 1 and 2 of this Decision – 11.25%;
5) for senior purchased corporate receivables where a bank is not able to prove that its PD estimates meet the minimum requirements set out in Subpart 2 of this Part – 45%;
6) for subordinated exposures in respect of purchased corporate receivables, where a bank is not able to prove that its PD estimates meet the minimum requirements set out in Subpart 2 of this Part – 100%;
7) for dilution risk of purchased corporate receivables – 75%.

To calculate the amount of risk-weighted exposures for credit and dilution risk, a bank using the AIRB Approach for corporate exposures and can decompose its EL estimates for purchased corporate receivables into PDs and LGDs in a reliable and satisfactory manner, may use the LGD estimate obtained in this manner.

By adjusting PD and/or LGD, a bank may use unfunded credit protection only subject to the requirements as specified in Subpart 2 of this Part and if so determined in the consent to use the IRB Approach. A bank shall not assign to guaranteed exposures an adjusted PD or LDG such that the adjusted risk weight would be lower than that of a comparable, direct exposure to the protection provider.

For the purposes of Section 118, paragraph 3 of this Decision, the LGD of a comparable direct exposure to the protection provider shall either be the LGD associated with an unhedged exposure to the protection provider or to the obligor, depending on whether in the event of both the protection provider and the obligor default during the life of the hedged transaction, available evidence and the structure of the credit protection indicate that the amount recovered would depend on the financial condition of the protection provider or the obligor, depending on the selected LGD.

Maturity (M)

109. Banks applying the FIRB Approach shall assign to exposures arising from repurchase transactions or securities or commodities lending or borrowing transactions M of 0.5 years and to all other exposures M of 2.5 years. As part of the permission for the IRB Approach, the National Bank of Serbia shall decide on whether the bank shall use the M parameter under this paragraph or this parameter under paragraph 2 of this Section.

Banks using the AIRB Approach for exposures to central governments, central banks, companies or banks shall calculate M for each of these exposures, as set out in paragraphs 3 to 6 of this Section, whereas M shall be no greater than five years, as follows:

1) for an instrument subject to a cash flow schedule, M shall be calculated in accordance with the following formula:

$$M = MAX\left\{1;\ MIN\left\{\frac{\sum_t t \times CF_t}{\sum_t CF_t},\ 5\right\}\right\},$$

where CF_T denotes cash flows (principal, interest payments and fees) contractually payable by the obligor in year t;

2) for derivatives subject to a master netting agreement, M shall be the weighted average remaining maturity of the exposure, where M shall be at least one year, and the notional amount of each exposure shall be used for weighting the maturity;

3) for exposures arising from fully or nearly-fully collateralised derivative instruments listed in Annex 1, and fully or nearly-fully collateralised margin lending transactions which are subject to a master netting agreement, M shall be the weighted average remaining maturity of the transactions where M shall be at least ten days;

4) for exposures in respect of repurchase transactions or securities or commodities lending or borrowing transactions which are subject to a master netting agreement, M shall be the weighted average remaining maturity of the transactions where M shall be at least five days. The notional amount of each transaction shall be used for weighting the maturity;

5) a bank using its own PD estimates for purchased corporate receivables in respect of credit lines, for drawn amounts M shall equal the purchased receivables exposure weighted average maturity, were M shall be at least 90 days. This same value shall also be used for undrawn amounts under a committed purchase facility provided that the facility contains effective covenants (such as early amortisation triggers) that protect the bank against a significant deterioration in the quality of the future receivables it is required to purchase over the facility's term. Absent such effective protections, M for undrawn amounts shall be calculated as the sum of the longest-dated potential receivable under the purchase agreement and the remaining maturity of the purchase facility, where M shall be at least 90 days;

6) for other instruments or when a bank is not in a position to calculate M as set out in indent 1) of this paragraph, M shall be the maximum remaining time (in years) that the obligor is permitted to take to fully discharge its contractual obligations, where M shall be at least one year;

7) where banks calculate exposure values by applying the Internal Model Method set out in Subpart 5, Part 5 of this Chapter, for which the maturity of the longest-dated contract contained in the netting set is greater than one year, M shall be calculated in accordance with the following formula:

$$M = MIN\left(\frac{\sum_k Ефективна\ EE_{t_k} \times \Delta t_k \times df_{t_k} \times s_{t_k} + \sum_k EE_{t_k} \times \Delta t_k \times df_{t_k} \times \left(1 - s_{t_k}\right)}{\sum_k Ефективна\ EE_{t_k} \times \Delta t_k \times df_{t_k} \times s_{t_k}};\ 5\right),$$

where:

s_{t_k} = dummy variable whose value at future period t_k is equal to 0 if $t_k > 1$ and to 1 if $t_k \leq 1$;

EE_{t_k} = the expected exposure at a future period t_k;

$Effective\ EE_{t_k}$ = the effective expected exposure at the future period t_k;

df_{t_k} = the risk-free discount factor for the future time period t_k; and

$\Delta t_k = t_k - t_{k-1}$.

8) a bank that uses an internal model to calculate a one-sided credit valuation adjustment (CVA) may use, subject to the consent to use the IRB Approach, the effective credit duration estimated by the internal model as M. Subject to item 1) of this paragraph, for netting sets in which all contracts have an original maturity of less than one year the formula in item 1) of this paragraph shall apply;

9) banks using the Internal Model Method set out in Subpart 5, Part 5 of this Chapter and having the National Bank of Serbia's consent to apply the internal models approach for specific position risk associated with traded debt positions in accordance with Chapter VII, Part 6 of this Decision, M shall be set to 1 in the formula laid down in Section 118, paragraph 1 of this Decision, provided that a bank can demonstrate to the National Bank of Serbia that its internal models for specific risk associated with traded debt positions applied in Section 302 of this Decision contain the effects of rating migrations;

10) for the purposes of Section 118, paragraph 3 of this Decision, M shall be the effective maturity of the credit protection but at least 1 year.

Where the documentation requires daily re-margining and daily revaluation and includes provisions that allow for the prompt liquidation or set-off of collateral in the event of default or failure to remargin, M shall be at least one day for:

1) fully or nearly-fully collateralised financial derivatives listed in Annex 1;

2) fully or nearly-fully collateralised margin lending transactions;

3) repurchase transactions, securities or commodities lending or borrowing transactions.

For qualifying short-term exposures which are not part of the ongoing financing of the obligor, M shall be at least one day. Qualifying exposures shall include the following:

1) exposures to banks arising from the settlement of foreign exchange obligations;

2) self-liquidating short-term trade transactions connected to the exchange of goods and services with a residual maturity of up to one year;

3) exposures arising from the settlement of securities purchases or sales within the usual delivery period or two business days;

4) exposures arising from cash settlements by wire transfer and settlements of electronic payment transactions and prepaid cost, including

overdrafts arising from failed transactions that do not exceed a short, fixed number of business days.

For exposures to companies from the Republic of Serbia and the European Union and having consolidated sales and consolidated assets of less than RSD 60,000,000,000 banks may choose to consistently set M as set out in paragraph 1 of this Section instead of M set out in paragraph 2 of this Section. Banks may replace RSD 60,000,000,000 total assets with RSD 120,000,000,000 total assets of companies which primarily own and let non-speculative residential property.

In case of maturity mismatches, when estimating M a bank shall apply the provisions of Part 3 of this Chapter.

b) Retail exposures

Probability of default (PD)

110. The PD of a retail exposure shall be at least 0.03%.

The PD of obligors or of exposures of default shall be 100%.

To calculate the amount of risk-weighted exposures, for dilution risk of retail purchased receivables PD shall be set equal to EL estimates for dilution risk. If a bank may decompose in a reliable and satisfactory manner its EL estimates for dilution risk of purchased retail receivables into PDs and LGDs, it may use the PD estimate obtained in such manner.

Unfunded credit protection may be taken into account by adjusting PDs subject to Section 111, paragraph 2 of this Decision. For dilution risk, in addition to the eligible protection providers referred to in Section 149, paragraph 1, item 7) of this Decision, the seller of the purchased receivables is eligible if the conditions set out in Section 107, paragraph 4 are met.

Loss given default (LGD)

111. Banks shall provide own estimates of LGDs subject to the requirements as specified in Subpart 2 of this Part.

To calculate risk-weighted exposures for dilution risk of purchased retail receivables, a LGD value of 75% shall be used. If a bank can decompose in a reliable and satisfactory manner its EL estimates for dilution risk of purchased receivables into PDs and LGDs, the bank may use the LGD estimate obtained in such manner.

Unfunded credit protection may be recognised as eligible by adjusting PD and/or LGD estimates subject to requirements as specified in Section 98, paragraphs 1 to 3 of this Decision and if so determined in the permission for the IRB Approach, either in support of an individual exposure or a pool of exposures. A bank shall not assign to guaranteed exposures an adjusted PD or LGD such that the adjusted risk weight would be lower than that of a comparable, direct exposure to the protection provider.

For the purposes of calculating the risk-weighted exposure amount for exposures referred to in Section 122, paragraph 2 of this Decision, the LGD of a comparable direct exposure to the protection provider referred to in Section 118, paragraph 3 of this Decision shall be the LGD associated with an unhedged exposure in the manner determined by Section 108, paragraph 4 of this Decision.

The exposure-weighted average LGD for retail exposures secured by residential immovable property and not benefiting from a central government guarantee shall not be lower than 10%.

The exposure-weighted average LGD for retail exposures secured by commercial immovable property and not benefiting from a central government guarantee shall not be lower than 15%.

A bank shall apply the higher minimum LGD values than prescribed by paragraphs 5 and 6 of this Section that have been determined by the competent regulatory authority of the country where such immovable property is located.

c) Equity exposures subject to the PD/LGD method

112. For equity exposures subject to PD/LGD method, PD shall be determined in accordance with the methods for corporate exposures. A bank shall apply the following minimum PDs:

1) 0.09% – for exchange traded equity exposures where investment is part of a long-term customer relationship;
2) 0.09% – for non-exchange traded equity exposures where returns on the investment are based on regular and period cash flows not derived from capital gains;
3) 0.40% – for exchange traded equity exposures including other short positions as set out in Section 125, paragraph 2 of this Decision;
4) 1.25% – for other non-exchange traded equity exposures including short positions as set out in Section 125, paragraph 2 of this Decision.

A bank may assign to non-exchange traded equity exposures in

sufficiently diversified portfolios an LGD of 65%. All other such exposures shall be assigned an LGD of 90%.

A bank shall assign M of five years to all equity exposures.

4. EAD

113. Unless prescribed otherwise by this Subpart, a bank shall calculate the exposure amount on on-balance sheet positions in gross amount, before deduction by the credit risk adjustment amount.

A bank shall apply the provisions of paragraph 1 of this Section also to the assets purchased at a price different than the amount owed. For assets purchased at a discount or premium, the exposure amount shall be the nominal amount, without adjustment for the discount or premium. To calculate the amount of risk-weighted exposures in respect of purchased receivables, the remaining amount of the receivables less the capital requirement for the dilution risk, before applying credit protection instruments, shall be used as the exposure amount.

Where banks use master netting agreements in relation to repurchase transactions or securities or commodities lending or borrowing transactions, the exposure amount shall be calculated in accordance with Part 3 or Part 5 of this Chapter.

In order to calculate the exposure amount for on-balance sheet netting of loans and deposits, banks shall apply the exposure amount calculated in accordance with Part 3 of this Chapter.

The exposure amount for leases shall be the current value of the lease fee. If a party other than the lessee is required to make a payment related to the residual value of a leased asset (difference between the non-amortising and market value of the lease asset) and this payment obligation fulfils the conditions set out in Sections 149 and 162 of this Decision, it may be taken into account as a credit protection instrument in accordance with Part 3 of this Decision.

In the case of financial derivatives listed in Annex 1, the exposure amount shall be determined by methods set out in Part 5 of this Chapter and shall not take into account any credit risk adjustment.

Where an exposure takes the form of securities or commodities sold, pledged as collateral or lent under repurchase transactions or securities or commodities lending or borrowing transactions, long settlement transactions and margin lending transactions, the exposure amount shall be the value of

the securities or commodities in accordance with accounting regulations. Where the collateral comprehensive method as set out under Sections 174 to 179 is used, a bank shall increase the exposure value by the volatility adjustment appropriate to such securities or commodities. The exposure value of repurchase transactions, securities or commodities lending or borrowing transactions, long settlement transactions and margin lending transactions may be determined either in accordance with Part 3 of this Chapter or Section 169 of this Decision.

The exposure amount for off-balance sheet items shall be calculated as the committed but undrawn amount multiplied by conversion factors in accordance with Section 116, paragraph 8 of this Decision. For exposures to central governments and central banks, companies and banks the following conversion factors shall apply:

1) 0% – for the undrawn credit line (including revolving purchased receivables) that a bank may unconditionally cancel without prior notice or that effectively provide for unilateral cancellation due to deterioration in a borrower’s creditworthiness, on condition that the bank actively monitors the financial condition of the obligor and that its internal controls system enables it to timely detect such deterioration, whereas such credit lines for natural persons are considered unconditionally cancellable if so envisaged by regulations governing the protection of bank clients – natural persons, or the terms permit the bank to cancel them to the full extent;

2) 20% – for short-term letters of credit arising from the movement of goods, both for the issuing and confirming banks;

3) 75% – for credit lines not covered by item 1) of this paragraph, including note issuance facilities (NIFs) and revolving underwriting facilities (RUFs);

4) banks which meet the requirements under Subpart 2 of this Part for the use of own estimates of conversion factors and if so determined in the permission for the IRB Approach, may use their own estimates of conversion factors across different product types as mentioned in items 1) to 3) of this paragraph.

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

For all off-balance sheet items other than those mentioned in paragraphs 2 to 7 of this Section, the following conversion factors shall apply:

1) 0% – if it is a low-risk item;
2) 20% – if it is a medium/low-risk item;
3) 50% – if it is a medium-risk item;

4) 100% – if it is a full risk item.

114. The exposure amount of equity exposures shall be the accounting value remaining after reductions for specific credit risk adjustment.

The exposure value of off-balance sheet equity exposures shall be its nominal value after reductions for specific credit risk adjustment.

115. The exposure amount of other assets shall be the accounting value after reductions for specific credit risk adjustment.

5. Calculation of amounts of risk-weighted exposures

a) Treatment by exposure class

116. A bank shall calculate the risk-weighted exposure amounts for credit risk for exposures belonging to one of the exposure classes referred to in Section 73, paragraph 1, items 1) to 5) and item 7) of this Decision in accordance with Sections 118 to 128 of this Decision unless deducted from capital.

A bank shall calculate the risk-weighted exposure amount for dilution risk in accordance with Section 129 of this Decision. Where a bank has full recourse to the seller of the purchased receivables for credit risk and for dilution risk, the provisions of this Section and Sections 117 and 130 of this Decision shall not apply and the exposure shall be treated as a collateralised exposure.

The calculation of risk-weighted exposure amounts for credit risk and dilution risk shall be based on the relevant parameters associated with the exposure in question – PD, LGD and M and exposure values. PD and LGD may be considered separately or jointly, in accordance with Subpart 6 of this Part.

Banks shall calculate the risk-weighted exposure amount for credit risk for exposures belonging to the exposure class ‘equity’ referred to in Section 73, paragraph 1, item 5) of this Decision in accordance with Sections 124 to 127 of this Decision. A bank may use the approaches set out in Sections 126 and 127 of this Decision only with prior consent of the National Bank of Serbia. The National Bank of Serbia shall grant to a bank consent to use the internal models approach set out in Section 127 of this Decision provided that the bank meets the minimum requirements set out in Sections 101 to 103 of this Decision.

A bank may calculate the risk-weighted exposure amount for credit risk

for specialised lending exposures in accordance with Section 119 of this Decision.

For exposures belonging to the exposure classes referred to in Section 73, paragraph 1, items 1) to 4) of this Decision, a bank shall provide its own estimates of PD in accordance with Section 69 of this Decision and Subpart 2 of this Part.

For exposures belonging to the exposure class referred to in Section 73, paragraph 1, item 4) of this Decision, a bank shall provide own estimates of LGD and conversion factors in accordance with Section 69 of this Decision and Subpart 2 of this Part.

For exposures belonging to the exposure classes referred to in Section 73, paragraph 1, items 1) to 3) of this Decision, a bank shall apply the LGD estimates set out in Section 108, paragraph 1 of this Decision and conversion factors set out in Section 113, paragraph 8, items 1) to 3) of this Decision, unless it has been permitted to use its own estimates of LGDs and conversion factors for those exposure classes in accordance with paragraph 9 of this Section.

For exposures belonging to the exposure classes referred to in Section 73, paragraph 1, items 1) to 3) of this Decision, the National Bank of Serbia may permit a bank to use own estimates of LGDs and conversion factors in accordance with Section 69 of this Decision and Subpart 2 of this Part.

The risk-weighted exposure amounts for securitised exposures and for exposures belonging to the exposure class in respect of securitised positions referred to in Section 73, paragraph 1, item 6) of this Decision shall be calculated in accordance with Part 4 of this Chapter.

117. If exposures in respect of units in open-ended investment funds meet the requirements under Section 60, paragraph 2 of this Decision and if a bank is fully or partly familiar with the underlying exposure of that fund, it shall analyse the underlying exposures to calculate risk-weighted exposure amounts and expected loss amounts for underlying exposures in accordance with the methods prescribed in this Part. When an open-ended investment fund invests in another open-ended investment fund, a bank shall analyse the exposures of respective open-ended investment funds.

If a bank does not meet the requirements prescribed by this Part for the application of methods referred to in paragraph 1 of this Decision, it shall calculate risk-weighted exposure amounts and expected loss amounts for overall exposure or for a part of exposure referred to in paragraph 1 of this Decision as follows:

1) for exposures belonging to the class of exposures in respect of equity investment referred to in Section 73, paragraph 1, item 5) of this Decision – by using the simple risk-weight approach referred to in Section 125 of this Decision, while the bank shall take account of the following:

− where a bank is unable to differentiate between private equity, exchange-traded and other equity exposures, it shall treat them as other exposures based on equity investment,

− if the sum of such (indirect) exposures and direct exposures in this class is not materially significant within the meaning of Section 83, paragraph 2 of this Decision, a bank may, with the consent of the National Bank of Serbia, apply Section 83, paragraph 1 of this Decision;

2) for all other underlying exposures classified in the unrated exposure category or the category with the worst level of credit quality, the risk weight shall be assigned in accordance with Part 1 of this Chapter multiplied by a factor of two but shall not be higher than 1,250%;

3) for all other exposures, the risk weight shall be assigned in accordance with Part 1 of this Chapter, multiplied by a factor of 1.1 and shall be subject to a minimum of 5%.

Where the requirements set out in Section 60, paragraph 2 of this Decision are not met or a bank is not aware of the underlying exposures of an open-ended investment fund or the underlying exposures of respective open-ended investment funds (when an open-ended investment fund invests in another open-ended investment fund), the bank shall analyse those underlying exposures and shall calculate risk-weighted exposure amounts and expected loss amounts in accordance with the simple risk-weight approach set out in Section 125 of this Decision. Where a bank is unable to differentiate between private equity, exchange-traded and other equity exposures, it shall treat them as other equity exposures. It shall assign non-equity exposures to other equity class.

By way of derogation from paragraph 3 of this Section, a bank may calculate itself or may use the average risk-weighted exposure amount calculated, based on the underlying exposures, by a third party, in accordance with paragraph 2 of this Section, provided that the calculation was confirmed by an external auditor and that the third party is:

– the fund depositary that is a bank or other financial sector entity, provided that the fund exclusively invests in securities and deposits them within this depositary; or

– for a fund which does not meet the requirement under indent one of this paragraph, the fund management company provided it meets the requirements set out in Section 60, paragraph 2, item 1) of this Decision.

b) Calculation of risk-weighted exposure amounts for credit risk

Risk-weighted exposure amounts for exposures to central governments and central banks, companies and banks

118. A bank shall calculate the risk-weighted exposure amounts for exposures to central governments and central banks, companies and banks according to the following formulae:

$$R = 0.12 \times \frac{1 - e^{-50PD}}{1 - e^{-50}} + 0.24 \times \left(1 - \frac{1 - e^{-50PD}}{1 - e^{-50}}\right),$$

$$b = (0.11852 - 0.05478 \times \ln(PD))^2$$

$$RW = \left[LGD \times N\left(\frac{G(PD)}{\sqrt{1-R}} + \sqrt{\frac{R}{1-R}} \times G(0.999)\right) - PD \times LGD\right] \times \left(\frac{1 + (M - 2.5) \times b}{1 - 1.5 \times b}\right) \times 12.5 \times 1.06$$

$$RWEA = RW \times EAD,$$

where:

R = systemic risk coefficient of correlation;
b = maturity adjustment factor, reflecting the impact of PD;
N(x) = cumulative distribution function for a standard normal random variable (i.e. the probability that a normal random variable with mean zero and variance of one is less than or equal to x);
G(Z) = the inverse cumulative distribution function for a standard normal random variable (i.e. the value x such that N(x)=z);
RW = risk weight;
RWEA = risk-weighted exposure amount;
EAD = exposure amount.

For PD = 0, risk weight (RW) shall be 0%.

For PD = 1, i.e. for defaulted exposures:

– where a bank applies the LGD value set out in Section 108, paragraph 1 of this Decision – RW shall be 0%,

– where a bank applies own estimates of LGD:

$$RW = Max\{0; 12.5 \times (LGD - EL_{BE})\},$$

where EL_{BE} is the best estimate of expected loss for the defaulted exposure

in accordance with Section 96, paragraph 1, item 8) of this Decision.

For all exposures to large financial sector entities, a bank shall multiply the coefficient of correlation (R) set out in paragraph 1 of this Section with 1.25. For all exposures to unregulated financial sector entities, the coefficients of correlation (R) set out in paragraphs 1 and 4 of this Section shall be multiplied by 1.25.

A bank may adjust the risk-weighted exposure amount for each exposure which meets the requirements set out in Sections 150 and 166 of this Decision in accordance with the following formula:

$$RWEA = RW \times EAD \times (0.15 + 160 \times PD_{pp}),$$

where:

PD_{pp} = PD of the protection provider.
RW = risk weight calculated using the relevant risk weight formula set out in paragraph 1 of this Section, where the input parameters are PD and LGD of a comparable direct exposure to the protection provider, while the maturity factor (b) shall be calculated using the lower of the PD of the protection provider and the PD of the obligor.

When calculating risk weights, for the purpose of calculating the risk-weighted exposure amounts referred to in paragraph 1 of this Section, for exposures to companies belonging to the group whose total annual consolidated income is less than RSD 6,000,000,000, a bank may apply the following formula:

$$(R) = 0.12 \times \frac{1-e^{-50PD}}{1-e^{-50}} + 0{,}24 \times \left(1 - \frac{1-e^{-50PD}}{1-e^{-50}}\right) - 0.04 \times \left(1 - \frac{\min\{\max\{5, S\}, 50\} - 5}{45}\right),$$

In this formula S is expressed as total annual sales in millions of euros with EUR 5 million ≤ S ≤ RSD 6,000,000,000; if reported sales are less than RSD 600,000,000, S shall be equivalent to that amount, while for purchased receivables the total annual sales shall be the weighted average by individual exposures of the pool.

A bank shall replace total annual income with total assets at the group consolidated level if total assets represent a more adequate indicator of the company's size than the total annual income.

119. For specialised lending exposures in respect of which a bank is not able to prove that its PD estimates meet the minimum requirements set out in

Subpart 2 of this Part, the bank shall assign risk weights based on risk categories set out in Annex 2, in accordance with the following Table:

Table 11

Remaining maturity	Risk category 1	Risk category 2	Risk category 3	Risk category 4	Risk category 5
< 2.5 years	**50%**	**70%**	**115%**	**250%**	**0%**
≥ 2.5 years	**70%**	**90%**	**115%**	**250%**	**0%**

The risk category 5 from Table 11 shall include defaulting debtors.

In assigning risk weights to specialised lending exposures, a bank shall take into account the following factors: financial strength, political and legal environment, project and/or asset characteristics, including any public-private partnership income stream, and credit protection factors.

120. For purchased corporate receivables a bank shall comply with the requirements set out in Section 99 of this Decision. For purchased corporate receivables that comply also with the conditions set out in Section 123, paragraph 1 of this Decision and where it would be unduly burdensome for a bank to use the risk quantification standards for corporate exposures as set out in Subpart 2, a bank may use the risk quantification standards for retail exposures set out in Subpart 2 of this Part.

For purchased corporate receivables, a bank may treat refundable purchase guarantees, collateral or partial guarantees that provide first-loss protection for default losses and/or dilution losses, as first-loss positions under the IRB securitisation framework.

121. Where a bank provides a credit protection instrument for a number of exposures under terms that the nth default among the exposures shall trigger payment and that this credit event shall terminate the contract, if the instrument has an assessment by an eligible credit assessment institution, a bank shall apply risk weights as set out in Section 4 of this Decision. If the instrument is not rated by an eligible credit assessment institution, the risk weights of the exposures included in the basket will be aggregated, excluding n-1 exposures where the sum of the expected loss amount multiplied by 12.5 and the risk-weighted exposure amount shall not exceed the nominal amount of the protection provided by the credit derivative multiplied by 12.5. A bank shall determine the n-1 exposures to be excluded from the aggregation on the basis that they shall include those exposures each of which produces a lower risk-weighted exposure amount than the risk-weighted exposure amount of any of the exposures included in the aggregation. A 1,250% risk weight shall

apply to exposures from the basket for which a bank cannot determine the risk weight under the IRB Approach.

Risk-weighted exposure amounts for retail exposures

122. The risk-weighted exposure amounts for retail exposures shall be calculated in accordance with the following formulae:

$$R = 0.03 \times \frac{1-e^{-35PD}}{1-e^{-35}} + 0.16 \times \left(1 - \frac{1-e^{-35PD}}{1-e^{-35}}\right)$$

$$RW = \left[LGD \times N\left(\frac{G(PD)}{\sqrt{1-R}} + \sqrt{\frac{R}{1-R}} \times G(0.999)\right) - PD \times LGD\right] \times 12.5 \times 1.06$$

$$\text{RWEA} = \text{RW} \times \text{EAD},$$

where:

R = systemic risk coefficient of correlation;
N(x) = cumulative distribution function for a standard normal random variable (i.e. the probability that a normal random variable with mean zero and variance of one is less than or equal to x);
G(Z) = the inverse cumulative distribution function for a standard normal random variable (i.e. the value x such that N(x)=z);
RW = risk weight;
RWEA = risk-weighted exposure amount;
EAD = exposure amount.

For PD = 1, i.e. for defaulted exposures:

$$\text{RW} = \text{Max}\{0;\ 12.5 \times (\text{LGD} - \text{EL}_{\text{BE}})\},$$

where EL_{BE} shall be the bank's best estimate of expected loss for the defaulted exposure in accordance with Section 96, paragraph 1, item 8) of this Decision.

A bank may calculate the risk-weighted exposure amount for each exposure to SMEs as referred to in Section 76 of this Decision which meet the requirements set out in Sections 150 and 166 of this Decision in accordance with Section 118, paragraph 3 of this Decision.

For retail exposures secured by immovable property collateral, instead of a coefficient of correlation R under paragraph 1 of this Section, a bank shall use the correlation of 0.15, while for qualifying revolving retail exposures

it shall not use the coefficient of correlation R under that paragraph, but the correlation of 0.04.

Exposures shall qualify as qualifying revolving retail exposures if they meet the following conditions:

1) the exposures are to individuals;
2) the exposures are revolving, unsecured, whereas revolving exposures are defined as those where customers' outstanding balances are permitted to fluctuate based on their decisions to borrow or repay up to the established limit. Undrawn commitments may be considered as cancellable unconditionally and without prior notice (if the terms permit the banks to cancel them to the full extent allowable under regulations and the contract);
3) the maximum exposure to a single individual in the sub-portfolio is RSD 12,000,000 or less;
4) a bank shall use the correlation referred to in paragraph 3 of this Section only for sub-portfolios that have exhibited low volatility of loss rates, relative to their average levels of loss rates, especially within the low PD bands, whereas, at the request of the National Bank of Serbia, it shall share information on the typical characteristics of these rates, including relative volatility of such rates – by qualifying revolving retail sub-portfolios, and for the overall qualifying revolving retail portfolio;
5) the treatment of these exposures shall be consistent with the underlying risk characteristics of the sub-portfolio.

Within the meaning of paragraph 4, item 2) of this Section, unsecured exposures shall also be credit facilities linked to a wage account. In this case amounts recovered from such current account shall not be taken into account in the LGD estimate.

123. To be eligible for the retail treatment, purchased receivables shall comply with the requirements set out in Section 99 of this Decision and the following conditions:

1) a bank has purchased receivables from a person not related to it and not directly or indirectly participating in the occurrence of such receivables;
2) the purchased receivables were generated on an arm's length basis between the persons that are not related and do not imply mutual receivables between the debtor and the creditor which may be subject to set-off;
3) a bank has a claim on all proceeds from the purchased receivables or a pro-rate interest in the proceeds;
4) the portfolio of purchased receivables is sufficiently diversified.

For purchased receivables, a bank may treat refundable purchase discounts, collateral or guarantees that provide first-loss protection for default

losses and/or dilution losses as first-loss positions under the IRB securitisation framework.

For hybrid pools of purchased retail receivables where a bank cannot separate exposures secured by immovable property collateral and qualifying revolving retail exposures from other retail exposures, it shall apply the highest risk weight for such exposures.

Risk-weighted exposure amounts for equity exposures

124. A bank shall determine their risk-weighted exposure amounts for equity exposures, excluding those deducted in accordance with Chapter III of this Decision or subject to a 250% risk weight in accordance with Section 21 of this Decision, in accordance with the simple risk-weight approach, PD/LGD Approach or the internal models approach. A bank may apply different approaches for different equity portfolios only where the bank itself uses different approaches for internal risk management purposes. Where a bank uses more than one approach, the choice of the PD/LGD Approach or the internal models approach shall be made consistently, in accordance with the approach used for risk management, and shall not be determined predominantly by lower capital requirements.

A bank may treat equity exposures to ancillary services companies in accordance with the treatment of other assets.

125. Under the simple risk-weight approach, a bank shall calculate the risk-weighted exposure amount in accordance with the formula:

$$RWEA = RW \times EAD,$$

while applying the following risk weights:

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

A bank may offset short cash positions and financial derivatives held in the non-trading book by long positions in the same individual stocks provided that these derivatives are internal hedges for at least another year. A bank shall treat other short positions as long positions with the relevant risk weights which are multiplied with the absolute value of each position. In the context of maturity mismatched positions, the method is that for corporate exposures set out in Section 109, paragraph 6 of this Decision.

When using the approaches referred to in paragraph 1 of this Section, a bank may recognise unfunded credit protection obtained on an equity exposure in accordance with Part 3 of this Chapter.

126. Under the PD/LGD Approach, a bank shall calculate risk-weighted exposure amounts according to the formulas in Section 118 of this Decision. If a bank does not have sufficient information to use the definition of default set out in Section 93 of this Decision, a scaling factor of 1.5 shall be assigned to risk weights.

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

When using the approaches set out in this Section, a bank may recognise unfunded credit protection in accordance with Part 3 of this Chapter. This shall be subject to an LGD of 90% on the exposure to the protection provider. For private equity exposures in sufficiently diversified portfolios an LGD of 65% may be used. For these purposes M shall be five years.

127. Under the internal models approach, the risk-weighted exposure amount shall be the potential loss on the bank's equity exposure multiplied by 12.5. This loss shall be calculated by using internal VaR models with one-tailed confidence interval of 99% for the differences between quarterly returns and an appropriate risk-free rate computed over a long-term sample period.

The risk-weighted exposure amount at the equity portfolio level may not be smaller than the sum of these exposure amounts calculated by using the PD/LGD Approach and the corresponding loss amounts multiplied by 12.5, calculated on the basis of corresponding PD and LGD values set out in Section 112 of this Decision.

When using the approaches under this Section a bank may recognise unfunded credit protection obtained on an equity position.

Risk-weighted exposure amounts for other assets

128. The risk-weighted exposure amount for other assets shall be calculated in accordance with the following formula:

$$RWEA = 100\% \times EAD$$

except for:

1) cash and cash equivalents held in the bank's vault or treasury, as applicable, or on an allocated basis, including gold in own treasuries or gold deposited with another person, as security for the bank's obligations – by assigning the risk weight of 0%;

2) the residual value of leased asset – as follows:

$$RWEA = 1/t \times 100\% \times EAD,$$

where t = max (1, the nearest number of the whole years of the lease remaining).

c) Calculation of risk-weighted exposure amounts for dilution risk of purchased receivables

129. A bank shall calculate the risk-weighted exposure amounts for dilution risk of purchased corporate and retail receivables in accordance with the formula set out in Section 118 of this Decision.

A bank shall determine PD and LGD parameters in accordance with Subpart 3 of this Part, whereas the exposure amount is determined in accordance with Subpart 4 of this Part, and M is one year.

If a bank files the documentation proving that the dilution risk of purchased receivables is immaterial, the National Bank of Serbia may allow a bank not to calculate the risk-weighted exposure amounts for that risk.

6. Calculation of EL parameter

130. For each exposure, a bank shall base the calculation of expected loss amounts on the same PD and LGD parameters and the exposure value used to calculate the risk-weighted exposure amounts in accordance with Section 116 of this Decision.

The expected loss amount for securitised exposures shall be calculated in accordance with Part 4 of this Chapter.

The expected loss amount for exposures belonging to the class of exposures for other assets set out in Section 115 of this Decision shall be zero.

The expected loss amount for exposures in the form of units in open-ended investment funds set out in Section 60 of this Decision shall be calculated in accordance with this Subpart.

131. A bank shall calculate the expected loss amount for exposures to central governments and central banks, companies and banks and retail exposures in accordance with the following formulae:

$$EL = PD \times LGD \text{ and}$$

$$\text{amount } EL = EL \times EAD.$$

Where a bank applies the AIRB Approach for defaulted exposures (PD = 1), EL shall be EL_{BE}, i.e. the bank's best estimate of expected loss for the defaulted exposure in accordance with Section 96 of this Decision.

For exposures subject to the treatment set out in Section 119 of this Decision, EL shall be zero.

For specialised lending exposures where a bank applies the risk weights set out in Section 118, paragraph 3 of this Decision, a bank shall use the expected loss rates listed in the table below:

Table 12

Remaining maturity	**Risk category 1**	**Risk category 2**	**Risk category 3**	**Risk category 4**	**Risk category 5**
< 2.5 years	0%	0.4%	2.8%	8%	50%
≥ 2.5 years	0.4%	0.8%	2.8%	8%	50%

132. A bank shall calculate the risk-weighted exposure amount for equity exposures by applying the simple risk-weight approach, in which case the expected loss amounts for equity exposures shall be calculated in accordance with the following formula:

$$\text{amount } EL = EL \times EAD,$$

EL values shall be the following:

– 0.8% – for private equity exposures in sufficiently diversified portfolios;
– 0.8% – for exchange traded equity exposures;
– 2.4% – for all other equity exposures.

If a bank calculates the risk-weighted exposure amounts for equity exposures by applying the PD/LGD Approach, it shall calculate the expected loss amounts for equity exposures in accordance with the following formulae:

EL = PD × LGD and

amount EL = EL × EAD.

If a bank calculates the risk-weighted exposures for equity exposures by applying the internal models approach, the expected loss amount for equity investment shall be zero.

133. A bank shall calculate the expected loss amount for dilution risk of purchased receivables in accordance with the following formulae:

EL = PD × LGD and

amount EL = EL × EAD.

134. A bank shall subtract the total expected loss amount calculated in accordance with Sections 131, 132 and 133 of this Decision from the general and specific credit risk adjustments, additional value adjustments in accordance with Section 12, paragraph 5 and Section 36 of this Decision, including other deductions in capital relating to these exposures. Within the meaning of Section 113, paragraph 1 of this Decision, discounts on balance sheet exposures purchased when in default shall be treated as specific credit risk adjustments. These adjustments shall not be used to cover expected loss amounts on other exposures. Expected loss amounts for securitised exposures and general and specific credit risk adjustments related to these exposures shall not be included in this calculation.

Part 3

1. Framework for application of credit risk mitigation techniques

135. The risk-weighted exposure amount and the expected loss amount calculated after adjustment for effects of credit risk mitigation techniques may not exceed the risk-weighted exposure amount and the expected loss amount calculated before such adjustment.

A bank may not adjust risk-weighted exposures for effects of credit risk mitigation techniques if it has already taken into account a specific credit protection instrument when calculating the risk-weighted exposure amount in accordance with Parts 1 or 2 of this Chapter.

Where the conditions in Subparts 2 and 3 of this Part are met, a bank may amend the calculation of risk-weighted exposure amounts under the Standardised Approach and the calculation of risk-weighted exposure amounts and expected loss amounts under the IRB Approach in accordance

with Subparts 4, 5 and 6 of this Part.

Banks shall treat cash, securities and commodities purchased, borrowed or received under a repurchase transaction and securities or commodities lending or borrowing transaction as eligible credit protection instruments.

Where a bank calculating the risk-weighted exposure amount under the Standardised Approach has more than one credit protection instrument for credit risk mitigation covering a single exposure, it shall do both of the following:

1) subdivide the exposure into parts covered by each type of credit protection instrument;
2) calculate the risk-weighted exposure amount for each part obtained in item 1) separately in accordance with this Part and Part 1 of this Chapter.

Where a bank calculating the risk-weighted exposure amount under the Standardised Approach covers a single exposure of credit protection provided by a single protection provider and that protection has differing maturities, it shall:

1) subdivide the exposure into parts covered by each credit risk mitigation tool of specific maturity;
2) calculate the risk-weighted exposure amount for each part obtained in item 1) of this paragraph separately in accordance with this Part and Part 1 of this Chapter.

136. A bank shall appropriately include into the risk management system all risks relating to the use of credit protection instruments, determine by its internal acts the credit risk mitigation techniques that it uses and the methods of obtaining credit protection instruments, ensure the possibility of implementation of these instruments in accordance with applicable law, and take appropriate activities to ensure the effectiveness of the credit protection arrangement.

The credit protection instrument shall meet the conditions prescribed by Subpart 3 of this Part.

A bank shall provide, at the request of the National Bank of Serbia, the reasoned legal opinion that it used to establish whether its credit protection instrument may be implemented in accordance with applicable law.

For the purposes of credit risk mitigation, a bank may recognise funded credit protection if this protection meets the following conditions:

1) it is defined as eligible as set out in Sections 137 to 148 of this Decision;

2) it is sufficiently liquid, easily marketable and its value is sufficiently stable over time – to provide appropriate certainty as to the credit protection;

3) the contractual relationship based on which such instrument was obtained enables a bank to timely cash or transfer, acquire or retain property ensuring credit protection in the event of the debtor's default, its bankruptcy, liquidation or other credit event relating to such debtor;

4) the degree of correlation between the value of such instrument and creditworthiness of the debtor is not high.

For the purposes of mitigating the credit risk, a bank may recognise as eligible unfunded credit protection if the following conditions are met:

1) the credit protection provider is eligible in accordance with Section 149 or 150 of this Decision;

2) this instrument is defined as eligible in accordance with Section 151 and Section 152, paragraph 1 of this Decision;

3) the credit protection agreement is aligned with relevant regulations, providing appropriate certainty to the credit protection achieved having regard of the approach used by a bank to calculate risk-weighted exposures and the eligibility of credit protection.

A bank shall continuously assess the credit risk arising from the bank's exposure, regardless of whether it uses credit risk mitigation techniques and shall appropriately document the fulfilment of this condition.

By way of derogation from paragraph 6 of this Section, in the case of repo transactions and securities or commodities lending or borrowing transactions, a bank may assess the credit risk arising from net exposure on these grounds.

2. Eligible credit protection instruments

a) Funded credit protection

On-balance sheet netting

137. An agreement on netting mutual monetary claims and liabilities of a bank based on loans and deposits with the counterparty shall qualify as eligible on-balance sheet netting.

Master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions and/or other capital market-driven transactions

138. A bilateral contract covering repurchase transactions, securities or commodities lending or borrowing transactions and/or other capital market-driven transactions shall qualify as eligible master netting agreement – if the collateral, or the securities or commodities under those transactions meet the requirements set out in Sections 139 to 142 of this Decision.

The agreement referred to in paragraph 1 of this Section may be used as eligible funded credit protection only by a bank which calculates the effects of credit risk mitigation techniques by applying the comprehensive method set out in Section 174 of this Decision.

Eligible financial collateral under all approaches and methods

139. Eligible financial collateral under all approaches and methods shall be:

1) cash and cash equivalents held with a bank;
2) debt securities issued by central governments or central banks with a credit assessment by an eligible credit assessment institution or export credit facility associated with credit quality step 4 or above for central governments and central banks in accordance with Part 1 of this Chapter;
3) debt securities issued by banks with credit assessment by an eligible credit assessment institution associated with credit quality step 3 or above in accordance with Part 1 of this Chapter;
4) debt securities issued by companies with a credit assessment by an eligible credit assessment institution associated with credit quality step 3 or above for companies in accordance with Part 1 of this Chapter;
5) debt securities with a short-term credit assessment by an eligible credit assessment institution associated with credit quality step 3 or above for short-term exposures in accordance with Part 1 of this Chapter;
6) shares or convertible bonds that are included in a main index;
7) gold;
8) securitisation positions that are not re-securitisation positions, with a credit assessment by an eligible credit assessment institution associated with credit quality step 3 or above for securitisation exposures in accordance with Part 4, Subpart 4, under a) of this Chapter.

For the purposes of paragraph 1, item 2) of this Section, debt securities issued by central governments or central banks shall also include the following:

1) debt securities issued by territorial autonomies and local government units to which the risk weight, in accordance with Section 42 of this Decision, is assigned in the manner prescribed for exposures to central governments

and central banks;

2) debt securities issued by public administrative bodies to which the credit risk weight, in accordance with Section 43, paragraph 5 of this Decision, is assigned in the manner prescribed for exposures to central governments and central banks;

3) debt securities issued by multilateral development banks to which a 0% risk weight is assigned under Section 44 of this Decision;

4) debt securities issued by international organisations to which a 0% risk weight is assigned under Section 45 of this Decision.

For the purposes of paragraph 1, item 3) of this Section, debt securities issued by banks shall include:

1) debt securities of territorial autonomies and local government units other than those under paragraph 2, item 1) of this Section;

2) debt securities issued by public administrative bodies to which the credit risk weight is assigned in accordance with Section 43, paragraphs 1 to 3 of this Decision;

3) debt securities issued by multilateral development banks other than those to which a 0% risk weight is assigned in accordance with Section 44 of this Decision.

Where debt securities under paragraph 1, items 2) to 5) of this Section have two or more credit assessments by eligible credit assessment institutions, a bank shall apply the less favourable assessment. Where these securities have more than two credit assessments by eligible credit assessment institutions, which according to the order of credit assessments into credit quality steps, refer to different risk weights, a bank shall apply the lower of the two highest risk weights; if they refer to the same risk weight – a bank shall use that risk weight.

140. Debt securities of banks that do not have a credit assessment by eligible credit assessment institutions shall also be considered eligible financial collateral, if the following conditions are met:

1) they are listed on a recognised exchange;

2) they are not subordinated compared to other obligations in the event of their issuer’s bankruptcy;

3) all other debt securities of the same issuer of the same seniority in the event of bankruptcy are assigned a credit assessment by an eligible credit assessment institution associated with credit quality step 3 or above for the given exposure class in accordance with Part 1 of this Chapter;

4) a bank has no information to suggest that the issue would justify a credit assessment below that indicated in item 3) of this paragraph;

5) a bank may prove that these securities are easily marketable.

141. Units of open-ended investment funds shall be considered eligible collateral if the following conditions are met:

1) the unit has a daily public price quote;
2) the fund invests only in financial instruments that are, in accordance with Sections 139 and 140 of this Decision considered eligible financial collateral;
3) an open-ended investment fund meets the conditions laid down in Section 60, paragraph 2 of this Decision.

Where an open-ended investment fund invests in another open-ended investment fund, the conditions laid down in paragraph 1 of this Section shall apply equally to both funds.

The use of financial derivatives to hedge units of open-ended investment funds shall not prevent their units from being eligible as collateral.

Where an open-ended investment fund or its underlying open-ended investment fund also invests in financial instruments not considered eligible financial collateral in accordance with Sections 139 and 140 of this Decision, a bank may recognise investment in its units in the value of instruments recognised as financial collateral under the assumption that the open-ended investment fund invested in non-eligible instruments to the maximum extent allowed.

In the event that the instruments referred to in paragraph 4 of this Section which are not eligible collateral have a negative value, due to liabilities and contingent liabilities, a bank shall subtract the absolute value of that amount from the total value of the eligible assets.

Additional eligibility of collateral
under the comprehensive method

142. In addition to the financial collateral established in Sections 139 and 140 of this Decision, where a bank uses the comprehensive method to calculate the effects of credit risk mitigation techniques, the following items shall also be considered eligible:

1) equities or convertible bonds not included in a main index but traded on a recognised exchange;
2) units of an open-ended investment fund where the following conditions are met:
– the units have a daily public price quote;
– the open-ended investment fund is limited to investing in

financial instruments that are considered eligible financial collateral, in accordance with Sections 139 and 140 of this Decision and item 1) of this paragraph.

In the case that an open-ended investment fund invests in units of another open-ended investment fund, such underlying open-ended investment fund must fulfil the conditions under paragraph 1 of this Section.

The use of financial derivatives to hedge investments shall not prevent units in that company from being eligible as collateral.

Where an open-ended investment fund or any underlying open-ended investment fund also invest in financial instruments that are not considered eligible financial collateral in accordance with Sections 139 and 140 of this Decision and paragraph 1, item 1) of this Section, a bank may recognise investment in its units in the value of instruments recognised as financial collateral under the assumption that an open-ended investment fund invested in non-eligible collateral to the maximum extent allowed.

Where the instruments under paragraph 4 of this Section which are not eligible financial collateral have a negative value, due to liabilities and contingent liabilities resulting from ownership, a bank shall calculate the total value of the non-eligible assets and, where the amount of the value is negative, subtract the absolute value of that amount from the total value of the eligible assets.

Additional eligibility for collateral under the IRB Approach

143. For the purpose of adjusting risk-weighted exposures for effects of credit risk mitigation techniques, a bank applying the IRB Approach may use eligible funded credit protection referred to in Sections 139 and 140 of this Decision and eligible credit protection, which include the following forms of collateral:

1) mortgage on immovable property if the requirements referred to in Section 144 of this Decision are met;
2) receivables in accordance with Section 145 of this Decision;
3) other physical collateral in accordance with Section 146 of this Decision;
4) exposures arising from leasing transactions in accordance with Section 147 of this Decision.

144. A bank may use as eligible collateral the mortgage on residential immovable property which is occupied or let by the owner based on

appropriate contract (or which will be occupied or let by the owner) and the mortgage on commercial immovable property, where the following conditions are met:

1) the value of the property does not materially depend on the obligor's credit quality, excluding macro-economic factors which affect both the value of the residential property and obligor's credit quality;

2) the obligor's credit quality does not materially depend upon the performance of the underlying property or cash flows generated from its use, but from the borrower's capacity to repay the debt from other sources.

145. Receivables linked to a commercial transaction shall qualify as eligible collateral if they arose from regular operations or transactions with an original maturity of less than or equal to one year, apart from receivables linked to credit derivatives, receivables associated with securitisations and receivables from related parties.

146. Other physical collateral shall qualify as eligible material credit protection where the following conditions are met:

1) there is a liquid market where property can be sold in the short-run and at an acceptable price, whereas a bank shall make a periodical assessment of the marketability of assets and market prices;

2) there are reliable and publicly available market prices for such property; market prices are considered prices from reliable sources of information, such as public indices which reflect prices under normal conditions, while publicly available prices shall imply the disclosed, easily accessible and regularly obtainable prices without any undue administrative or financial burden;

3) a bank analyses the market prices, time and costs of collateral realisation, and the realised proceeds from the collateral;

4) the realised proceeds from the collateral are not below 70% of the collateral value and more than 10% of all cases. Where there is material volatility in market prices, a bank shall demonstrate that its valuation of the collateral is sufficiently cautious.

A bank shall appropriately document the fulfilment of the conditions specified in paragraph 1 of this Section.

147. If the conditions set out in Section 159 are met, subject to Section 186, paragraph 4 of this Decision a bank may treat the exposures arising from transactions whereby a bank leases property to a third party as a loan collateralised by the lease asset.

Other funded credit protection instruments

148. Other eligible funded credit protection instruments shall include:

1) cash and cash equivalents deposited with a bank which is not a counterparty, and pledged to the bank which is one of the counterparties;
2) life insurance policies pledged to the bank;
3) financial instruments issued by a bank which is not one of the counterparties, which will be repurchased by that bank on the owner's request.

b) Unfunded credit protection

Eligibility of protection providers under all approaches

149. Eligible unfunded protection providers include:

1) central governments and central banks;
2) territorial autonomies and local government units;
3) multilateral development banks;
4) international organisations to which a 0% weight is assigned in accordance with Section 45 of this Decision;
5) public administrative bodies whose exposures are subject to Section 43 of this Decision;
6) banks and financial institutions whose exposures are subject to Section 46 of this Decision;
7) companies, including the bank's parent company and subsidiaries, with a credit assessment by an eligible credit assessment institution, or in the case of a bank which obtained the consent to apply the IRB Approach, without a credit assessment by an eligible credit assessment institution but internally rated by a bank;
8) central counterparties.

If a bank calculates the risk-weighted exposure amount and the expected loss amount under the IRB Approach, it shall assign to the protection provider, to recognise its eligibility, the internal rating in accordance with Part 2 of this Chapter.

Eligibility of protection providers under the IRB Approach

150. Banks, insurance and reinsurance undertakings and export credit agencies shall be considered eligible providers of unfunded credit protection if they qualify for the treatment set out in Section 118, paragraph 3 of this Decision and if they meet the following conditions:

1) they have sufficient experience in providing unfunded credit

protection;

2) they are financial sector entities subject to relevant regulations governing the operation of such entities and the supervision of such operations, comparable to those applied to banks or at the time credit protection was provided a credit assessment by an eligible credit assessment institution which is associated with credit quality step 3 or above for exposures to companies in accordance with Part 1 of this Chapter;

3) they have, at the time the credit protection was provided and for any period of time thereafter, an internal credit rating with a PD equivalent to that associated with credit quality step 2 or above for exposures to companies in accordance with Part 1 of this Chapter;

4) they have an internal rating with a PD equivalent to that associated with credit quality step 3 or above for exposures to companies in accordance with Part 1 of this Chapter.

If an unfunded credit protection instrument provided by an export credit agency is secured by a central government counter-guarantee, such counter-guarantee shall not be taken into account in calculation of credit protection effects.

Eligibility of unfunded credit protection

151. A bank may use guarantees or warranties, as applicable, as eligible unfunded credit protection if the protection provider meets the conditions set out in Section 149 or Section 150 of this Decision, as applicable.

c) Eligible types of credit derivatives

152. Eligible credit derivatives include:

1) CDS (credit default swaps),
2) TRS (total return swaps), and
3) CLN (credit linked notes) to the extent of their cash funding.

A bank may use as eligible unfunded protection the instruments composed of the derivatives set out in paragraph 1 of this Section and/or instruments with similar economic effects.

By way of derogation from paragraph 1 of this Section, TRS shall not be considered an eligible credit derivative when a bank records net payments received on such derivative as income, but does not record the offsetting deterioration in the value of assets (either through reductions in fair value or by an addition to reserves).

Where a bank conducts an internal hedge using a credit derivative, i.e. reduces the non-trading book credit risk exposure by using trading book credit derivatives – such credit derivative shall be considered eligible only if the credit risk entered in the trading book is transferred to third parties.

If the condition referred to in paragraph 4 of this Section and the requirements for the recognition of credit protection prescribed by this Decision have been met, when calculating the risk-weighted exposure amounts and the expected loss amount a bank shall apply the provisions of Subparts 4 to 6 of this Part.

3. Requirements for recognition of credit protection

a) Funded credit protection

Requirements for on-balance sheet netting agreements

153. On-balance sheet netting other than master netting agreements subject to Section 154 of this Decision shall qualify as an eligible form of credit risk mitigation where the following conditions are met:

1) the agreement on the netting of mutual cash claims and liabilities is legally effective and enforceable (including in the event of bankruptcy or liquidation of a counterparty);
2) a bank is able to determine at any time the claims and liabilities subject to the agreement referred to in item 1) of this Section;
3) a bank continuously monitors and controls the risks associated with the termination of the credit protection before the agreed deadline;
4) a bank continuously monitors and controls the relevant exposures on a net basis.

Requirements for master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions or other capital market-driven transactions

154. Master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions and other capital market-driven transactions shall qualify as an eligible form of credit risk mitigation if, in addition to the requirements laid down in Section 155, paragraph 1 of this Decision, they also meet the following conditions:

1) they are legally effective and enforceable (including in the event of bankruptcy or liquidation of a counterparty);
2) in the event of default of a counterparty (including in the event of

bankruptcy and liquidation of such counterparty), they give the non-defaulting party the right to close out all transactions within the shortest possible time;

3) they provide for the netting of gains and losses on transactions under such agreements so that a single net amount is owed by one party to another.

Requirements for financial collateral

155. Under all approaches and methods, financial collateral and gold shall qualify as eligible for credit risk mitigation if the following requirements are met:

1) the credit quality of the obligor and the value of the collateral shall not have a material positive correlation, which means that the value of the collateral shall not imply a significant deterioration of the credit quality of the obligor, i.e. where the credit quality of the obligor becomes critical, this shall not imply a significant reduction in the value of the collateral.

2) securities were not issued by the obligor or any related person, apart in the case of covered bonds falling within the terms of Section 57 of this Decision, which qualify as eligible collateral for repurchase transactions and comply with the condition set out in item 1) of this paragraph;

3) a bank shall take necessary activities in accordance with the contract and law to ensure the enforceability of collateral and shall regularly verify the possibility of such enforcement;

4) a bank has in place appropriate documentation for collateral and has established clear and robust procedures for the timely enforcement of collateral;

5) a bank has defined clear and robust procedures to manage risks arising from the obtained collateral (including the risk of failed credit protection, valuation risk, risk associated with the termination of the credit protection before the agreed deadline and the concentration risk), including the interaction with the bank’s overall risk profile;

6) a bank has determined by procedures the types and amounts of collateral accepted;

7) a bank shall determine the market value of the collateral at least once every six months or more frequently if a significant decrease in this value has occurred;

8) if the collateral is held by a third party, a bank has obtained appropriate evidence that the third party segregates in its business books the collateral from other assets;

9) a bank has devoted sufficient assets for orderly operation of margin agreements with OTC derivatives and securities-financing counterparties, as measured by the timeliness and accuracy of their outgoing margin calls and response time to income margin calls;

10) a bank has in place collateral management policies to control,

monitor and report the following:

– the risk to which margin agreements expose them,
– the concentration risk to particular types of collateral assets,
– the reuse of collateral, including potential liquidity shortfalls resulting from the reuse of collateral received from counterparties,
– the surrender of rights on collateral posted to a counterparty.

If a bank calculates the effects of credit risk mitigation techniques by applying the financial collateral simple method, in addition to meeting the conditions set out in paragraph 1 of this Section, it must also meet the condition that the agreed maturity of protection is at least as long as the residual maturity of the exposure.

Requirements for immovable property collateral

156. Immovable property shall qualify as eligible for credit risk mitigation if the following requirements are met:

1) a mortgage is enforceable in accordance with the law valid at the time of loan approval and that its validity is regularly verified;
2) mortgage is entered in land books, real estate cadastre or another appropriate register;
3) contractual provisions and the appropriate legal process enable a bank to realise the value of mortgage within a reasonable timeframe;
4) a bank regularly monitors the value of the property and, unless in the case of mortgaged residential property where the amount of the bank's remaining receivable does not exceed 40% of its value reduced by the amount of all receivables with a higher right of order over such real estate, and shall determine the market value of property based on the assessment of the authorised appraiser at least once every three years and more frequently – where the property market is subject to significant changes in conditions or the physical situation of such property changed;
5) with its policies, procedures or other acts, a bank has defined the types of residential and commercial property that is accepts as collateral, as well as the conditions and manner of extending loans secured by mortgage on immovable property;
6) a bank has defined clear and robust procedures for the monitoring and verification of the insurance against the risk of damage on mortgaged immovable property.

Regular monitoring of the value of immovable property referred to in paragraph 1, item 4) of this Section implies the review of such valuation based on available data and information, including the use of statistical models; a bank must conduct such review at least once a year for commercial

property or at least once in three years for residential and other property.

Requirements for receivables to qualify as collateral

157. A receivable shall qualify for credit risk mitigation if the following requirements are met:

1) the contractual provisions relating to the receivable are effective and aligned with valid law, and ensure that a bank has the right to the proceeds from the collection or sale of the receivable, as applicable;

2) a bank shall implement all necessary legal actions to collect receivables and has a first priority claim in their collection;

3) a bank shall regularly review the possibility of receivables collection;

4) a bank shall properly document its collateral arrangements and shall have in place clear and robust procedures for the timely collection of collateral;

5) a bank has in place procedures regulating the manner of monitoring all conditions required for declaring the default of a borrower and the timely collection of the receivable;

6) in the event of the borrower's financial distress or default, a bank shall have legal authority to sell or assign such receivables to other party without the borrower's prior consent;

7) a bank has in place clear and robust procedures to ascertain the credit risk associated with receivables as collateral (these procedures also include the analysis of a borrower's business and industry, and types of customers with whom that borrower does business). If a bank relies on the credit risk assessment based on the borrower's receivable on a third party made by the debtor, it shall review the borrower's credit practices to ascertain their soundness and credibility;

8) the difference between the amount of the exposure and the value of the receivables shall reflect all appropriate factors, including the costs of collection, concentration within the receivables pool pledged by an individual borrower, and the potential concentration risk within the bank's total exposures; a bank shall regularly monitor the receivables and shall review, on a regular basis, compliance with contractual provisions and regulations;

9) receivables pledged by a borrower shall be diversified and with a low degree of correlation between their value and the credit quality of the bank's borrower; if there is material positive correlation, a bank shall take into account the attendant risks in the setting of margins for the collateral pool as a whole;

10) the pledged receivables shall not be the receivables from persons related to the borrower (including its employees);

11) a bank has in place appropriate procedures for collective receivable payments in distressed situations, as well as requisite facilities for collection even when they normally rely on their borrowers for collection.

Requirements for other funded credit protection

158. Other funded credit protection shall qualify for credit risk mitigation under the IRB Approach if the following conditions are met:

1) the contractual provisions regulating such collateral are enforceable and in accordance with valid law, enabling a bank to enforce it within a reasonable timeframe;

2) a bank has the first priority claim in the collection of the physical collateral compared to other creditors;

3) a bank shall regularly monitor and review at least once a year the value of this collateral and more frequently where this market is subject to significant changes in conditions;

4) the loan agreement shall contain detailed descriptions of the collateral, manner and frequency of revaluation;

5) a bank has adopted internal acts and/or has established the procedures determining the types of physical collateral they accept, and has in place the appropriate amount of each type of collateral relative to the exposure amount;

6) within its loan approval policy, by types of loan, a bank has defined the collateral requirements relative to the exposure amount, the ability to liquidate the collateral readily, the method of determining the price or market value, the frequency of the valuation of collateral (including by a professional appraiser) and volatility, and/or the appraisal of the volatility of collateral;

7) the initial and subsequent valuation of collateral shall take into account any deterioration in its quality, and the effects of the passage of time on its value;

8) a bank shall have the right to physically inspect the collateral and has in place the procedures addressing their exercise of such inspection;

9) a bank has in place clear and robust procedures to monitor and verify the adequacy of the insurance against the risk of damage to assets used as collateral.

Requirements for treating lease exposures as collateralised

159. A bank may treat the exposures arising from leasing transactions as exposures secured by the same type of assets subject to lease, if the following conditions are met:

1) the conditions set out in Sections 156 or 158 of this Decision, depending on the lease asset and the possibility that the assets under these sections are subject to lease in accordance with valid law;

2) the lessor has in place a proper risk management system implying the monitoring of the value of the lease asset, its location, its age, planned

use and amortisation during its use;

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

4) the difference between the value of the unamortised amount and the market value of the lease asset, where not already ascertained in calculating the LGD level, shall not be so large as to overstate the credit risk mitigation attributed to the leased assets.

Requirements for other funded credit protection

160. Cash and cash equivalents with another bank shall be eligible for credit risk mitigation in accordance with Section 148 of this Decision where the following conditions are met:

1) the claim against the other bank in respect of such cash and cash equivalents, pledged or assigned to the bank, may be enforced in accordance with valid law in an unconditional and irrevocable manner;

2) a bank where the funds are deposited is notified of the pledge (or transfer);

3) as a result of the notification from item 2) of this Section, the bank where the funds are deposited may transfer such funds only to the bank which is the credit protection beneficiary or to other persons with the bank's prior consent.

161. Life insurance policies shall qualify for credit risk mitigation if the following conditions are met:

1) they are openly pledged to the bank in accordance with valid law;

2) the insurance undertaking providing life insurance is notified of the pledge and may not pay the amounts payable without the consent of the bank;

3) a bank has the right to cancel the policy and receive the surrender value in the event of the default of the borrower;

4) a bank is informed of any non-payments under the policy by the policy-holder;

5) they have at least the same maturity as the underlying exposure; if the insurance policy expires before the loan relationship ends, a bank shall ensure that the amount obtained after the expiry of the insurance policy serves as credit protection until the expiry of the loan relationship;

6) the surrender value is declared by the insurance undertaking providing life insurance and is non-reducible;

7) the surrender value is payable in a timely manner upon request;

8) the surrender value may not be paid without the bank's consent;

9) the insurance undertaking providing life insurance is headquartered in the Republic of Serbia or an EU member state, or a non-EU member state

if its regulations governing the operation of insurance undertakings and the supervision of their operations are aligned with EU regulations.

b) Unfunded credit protection and CLN

General requirements for the eligibility of guarantees and credit derivatives

162. Subject to Section 163 of this Decision, a guarantee or credit derivative shall qualify for credit risk mitigation if the following conditions are met:

1) the credit protection is direct;
2) the extent, i.e. amount of credit protection is clearly defined and incontrovertible;
3) the credit protection contract does not contain any provisions which:

– enable the protection provider to cancel the contract unilaterally;
– increase the cost of credit protection as a result of a deterioration in the credit quality of the underlying exposure;
– could prevent the credit protection provider from being obliged to pay out in a timely manner in the event that the original obligor fails to make any payments or from recognising the guaranteed residual value in accordance with Section 62, paragraph 7 and Section 113, paragraph 5 of the Decision when the leasing contract has expired;
– could allow the credit protection provider to reduce the maturity of the credit protection;

4) they can be enforced in accordance with valid law.

A bank shall manage the concentration risk arising from its use of the guarantees and credit derivatives, and shall document the manner in which the strategy of using these instruments is incorporated into the overall risk management process.

A bank shall undertake all necessary steps in accordance with the contract and law to enforce collateral and shall continuously check the enforceability of the established protection instrument in accordance with valid law.

Sovereign and other public sector counter-guarantees

163. If the bank’s exposure is ensured by the guarantee for which there is a counter-guarantee referred to in paragraph 2 of this Section – such exposure may be treated as the exposure secured by the guarantee of these persons if the following conditions are met:

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

2) the guarantee and the counter-guarantee meet the requirements set out in Section 162 of this Decision, except that the counter-guarantee need not be direct;

3) the cover is robust and there are no historical data suggesting that the coverage of the counter-guarantee is less reliable than the direct guarantee by these entities.

The treatment set out in paragraph 1 of this Section shall be applied to guarantees which are counter-guaranteed by the following entities:

1) central governments or central banks;

2) territorial autonomies and local government units;

3) a public administrative body to which the risk weight, in accordance with Section 43, paragraph 5 of this Decision, is assigned in the manner prescribed for the exposures to the central government where it is established;

4) multilateral development banks or international organisations to which a 0% risk weight is assigned under Sections 44 and 45 of this Decision;

5) a public administrative body to which the risk weight is assigned under Section 43, paragraphs 1 to 3 of this Decision.

The treatment set out in paragraph 1 of this Section is also applied to the exposure which is counter-guaranteed by legal entities not specified in paragraph 2 of this Section, provided such counter-guarantee is directly guaranteed by the legal entities under that paragraph and if the conditions from paragraph 1 of this Section are met.

Additional requirements for guarantees

164. A guarantee shall be recognised for credit risk mitigation if, in addition to conditions in Section 162 of this Decision, the following conditions are met:

1) in the event of the default of the bank’s debtor or the occurrence of other credit event relating to such debtor, the guarantor shall be required to pay all due claims in respect of the underlying exposure which is not subject to the bank’s obligation to previously require the fulfilment of obligations by the debtor;

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

3) the guarantee covers all types of payments the obligor must make in respect of the underlying exposure and, exceptionally, when some types of

payments are not covered by the guarantee, such limited coverage is clearly indicated.

In the case of exposures in respect of the loan secured by mortgage on residential property, a guarantee shall be recognised for credit risk mitigation if the conditions set out in Section 162, paragraph 1, item 3), indent three of this Decision and paragraph 1 of this Section are met and if it is agreed that a bank may require payments from the guarantor by no later than 24 months from the day of default or the occurrence of other agreed event if it fails to redeem such exposure through mortgage enforcement.

In the case of guarantees received in the context of guarantee schemes or counter-guarantees by entities listed in Section 163, paragraph 2 of this Decision, the requirement in paragraph 1, item 1) of this Section is considered to be satisfied where either of the following conditions is met:

1) a bank has the right to obtain in a timely manner provisional payments by the guarantor in the amount of the estimated economic loss with a high probability of occurrence, proportionate to the coverage of the guarantee, including the losses resulting from the non-payment of interest and other types of payments which the borrower is obliged to make, or

2) a bank is able to demonstrate that the realisation of the guarantee may cover all losses that the guarantee refers to, including the losses resulting from the non-payment of interest and other types of payments which the borrower is obliged to make.

Additional requirements for the eligibility of credit derivatives

165. Credit derivatives shall qualify as eligible for credit risk mitigation if, in addition to the general conditions in Section 162 of this Decision, the following conditions are met:

1) the credit events specified in the credit derivative contract include:

– the failure to pay the amounts due under the terms of the underlying exposure, in effect at the time of such failure (with a grace period that is equal to or shorter than the grace period of the underlying obligation);

– the obligor does not settle its outstanding debts to all creditors (e.g. insolvency or another form of the obligor’s inability to pay its debts as they become due – the blockade of the obligor’s accounts, his statement about the inability to settle debts etc.);

– the restructuring of the underlying exposure involving the forgiveness or postponement of principal, interest or fees, or other similar change in the income statement (e.g. value adjustment or other similar change in the income statement);

2) where credit derivatives allow for cash settlement, a bank shall have in place a robust valuation process in order to estimate losses, including a clearly specified period for obtaining post-credit event valuations of the underlying exposure;

3) for credit derivatives where settlement is agreed with the transfer of the underlying exposure to the protection provider, the contract regulating such exposure shall not contain the provision which unreasonably withholds such transfer;

4) the identity of the parties responsible for determining whether a credit event has occurred is clearly defined; the determination of the credit event is not the sole responsibility of the credit protection provider;

5) the protection buyer has the right to inform the protection provider of the occurrence of a credit event.

Exceptionally, if the credit derivative contract does not envisage the occurrence of a credit event in the event of restructuring under paragraph 1, item 1), indent three, the credit derivative may be recognised for credit risk mitigation if its value is reduced in the manner determined in Section 189, paragraph 2 of this Decision.

In respect of credit derivatives where the reference obligation and/or the obligation used for the purposes of determining whether a credit event occurred is different than the underlying exposure, the following conditions must be met:

1) the reference obligation or the obligation used for the purpose of determining whether a credit event has occurred ranks pari passu with or is junior to the underlying exposure;

2) the underlying obligation and the reference obligation or the obligation used for the purpose of determining whether a credit event occurred share the same obligor, and legally enforceable cross-default or cross-acceleration clauses are in place.

Additional requirements to qualify for the treatment set out in Section 118, paragraph 3 of this Decision

166. To be eligible for treatment set out in Section 118, paragraph 3 of this Decision, a guarantee or credit derivative shall be considered an eligible credit protection instrument if the following conditions are met:

1) the underlying obligation shall be:

– a corporate exposure as referred to in Sections 73 to 79 of this Decision, excluding insurance and reinsurance undertakings,

– an exposure to territorial autonomies and local government units

or to public administrative bodies which are not treated as an exposure to the central government where they were incorporated in accordance with Sections 73 to 79 of this Decision;

– an exposure to SMEs, classified as a retail exposure in accordance with Section 76 of this Decision.

2) the underlying obligors are not members of the same group of related persons as the protection provider;

3) the exposure is hedged by the following instruments:

– single-name credit derivatives or guarantees,
– first-to-default basket products;
– nth-to-default basket products;

4) the credit protection meets the requirements set out in Sections 162, 164 and 165 of this Decision, as applicable;

5) the risk weight associated with the exposure prior to the application of the treatment set out in Section 118, paragraph 3 of this Decision does not already factor in any aspect of the credit protection;

6) a bank has the right to receive payment from the protection provider without having to take legal action against the obligor, and shall take steps to satisfy that the protection provider is willing to pay promptly should a credit event occur;

7) the credit protection absorbs all losses relating to the hedged exposure that arise due to the occurrence of credit events;

8) where the payout structure provides for physical settlement, there are no legal limitations with respect to the deliverability of a loan, bond or contingent liability;

9) if a bank intends to deliver an obligation other than the underlying exposure, it shall ensure that the deliverable obligation is sufficiently liquid so that the bank would have the ability to purchase it for delivery in accordance with the contract;

10) the terms and other elements of credit protection are defined by the contractual relation between the protection provider and the bank;

11) a bank has in place a process to determine a high degree of correlation between the creditworthiness of the protection provider and the obligor of the underlying exposure due to their performance being dependent on common factors beyond the systemic risk factor;

12) in the case of protection against dilution risk, the seller of the purchased receivable is not a member of the group of related persons as the protection provider.

For the purposes of paragraph 1, item 3), indent two of this Section, a bank shall apply the treatment set out in Section 118, paragraph 3 of this Decision to the assets within the basket within the lowest risk-weighted exposure.

For the purposes of paragraph 1, item 3), indent three of this Section, a bank shall apply the treatment set out in Section 118, paragraph 3 of this Decision to the assets within that basket with the lowest risk-weighted exposure amount only if the eligible protection has already been obtained for the assets from the first (n-1) default protection or where the (n-1) default has already occurred.

4. Calculation of effects of credit protection

a) Funded credit protection

Credit linked notes (CLN)

167. CLN issued by a bank may be treated as cash collateral for the purpose of calculating risk-weighted exposure provided that the embedded credit default swap qualifies as eligible unfunded credit protection prescribed by Section 136, paragraph 5 of this Decision.

On-balance sheet netting

168. To make adjustment of risk-weighted exposures for the effects of on-balance sheet netting, the receivables and liabilities in respect of loans and deposits in the same currency subject to on-balance sheet netting shall be treated as cash collateral.

Using the Supervisory or Own Estimates of Volatility Adjustments Approach for master netting agreements

169. For the purposes of calculating the adjusted exposure value for the effects of using master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions and/or other capital market-driven transactions, a bank shall calculate the volatility adjustments using the comprehensive method as set out in Sections 174 to 182 of this Decision, by using either the Supervisory Volatility Adjustments Approach or the Own Estimates Volatility Adjustments Approach. The use of the Own Estimates Approach shall be subject to the same conditions as apply under the comprehensive method.

For the purposes of calculating E^*, a bank shall:

1) calculate the net position in each group of securities or each type of commodity by subtracting the amount of total value of a group of securities or of commodities of the same type purchased, borrowed or received under the master netting agreement from the amount of the total value of this group of securities or of commodities sold, lent or provided under such agreement;

2) calculate the net position in each currency, other than the settlement currency of the master netting agreement, by subtracting the amount of the total value of securities denominated in such currency which were purchased, borrowed or received under this agreement from the amount of the total value of securities expressed in such currency which are sold, lent or provided under that agreement;

3) apply to the absolute value of the net position in each group of securities the appropriate volatility adjustment for the given group or cash position;

4) apply to the absolute value of the net position in each currency, other than the settlement currency of the master netting agreement the appropriate volatility adjustment for the currency mismatch for a given currency.

The effective value of the underlying exposure under master netting agreements (E*) shall be calculated in accordance with the following formula:

$$E^* = max\{0, (\Sigma_i E_i - \Sigma_i C_i) + \Sigma_j \left|E_j^{sec}\right| \cdot H_j^{sec} + \Sigma_k \left|E_k^{fx}\right| \cdot H_k^{fx}\}$$

where:

E_i = the value for each separate exposure i under the master netting agreement, under the assumption of the absence of credit protection, determined according to the Standardised or IRB Approach, as applicable, depending on what approach is used by the bank;

C_i = the value of securities or commodities purchased, borrowed or received, or cash borrowed or received in respect of each exposure i,

E_j^{sec}= the net position (positive or negative) in the group of identical securities j;

E_k^{fx} = the net position (positive or negative) in a given currency k, other than the settlement currency of the master netting agreement,

H_j^{sec} = the volatility adjustment for collateral determined for each type of securities j;

H_k^{fx} = the foreign exchange volatility adjustment for currency k.

For the purposes of calculating risk-weighted exposure amounts for the effects of using master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions and/or other capital market-driven transactions, a bank shall use the nominal value of E* calculated in accordance with paragraph 3 of this Section as the value of exposures to the counterparty arising from transactions included in the master netting agreement for the purposes of Section 39 of this Decision under the Standardised Approach, or for the purposes of Part 2 of this Chapter under the IRB Approach.

For the purposes of Sections 180 and 181 of this Decision, a group of securities means securities issued by the same legal person, of the same issue date, the same maturity, are subject to the same terms and conditions, and are subject to the same liquidation period.

Using the internal models approach for master netting agreements

170. Subject to prior consent of the National Bank of Serbia, banks may calculate the adjusted risk-weighted exposure amount resulting from the application of a master netting agreement covering repurchase transactions, securities or commodities lending or borrowing transactions, and/or other capital market driven transactions using internal models which take into account correlation effects between security positions subject to this agreement as well as the liquidity of the securities concerned.

Subject to prior consent of the National Bank of Serbia, banks may also use their internal models for margin lending transactions, where the transactions are covered under a bilateral master netting agreement that meets the requirements set out in Part 5, Subpart 6 of this Chapter.

A bank may choose to use an internal models approach independently of the choice it has made between the Standardised Approach and the IRB Approach for the calculation of risk-weighted exposure amounts, but it shall use an internal models approach for all counterparties and all securities, excluding immaterial portfolios where it may use volatility adjustments in accordance with Section 169 of this Decision.

Banks that have received consent of the National Bank of Serbia to use internal models under Chapter VII, Part 6 of this Decision may use the internal models approach referred to in that Section. Where a bank has not received such consent, it may apply for prior consent to the National Bank of Serbia to use the internal models referred to in that Section.

171. The National Bank of Serbia may grant its prior consent to a bank to use internal models only where it is satisfied that the bank has in place a comprehensive, reliable and uniform system for managing the risks arising from transactions covered by the master netting agreement and where the following standards are met:

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

2) the bank has a risk control organisational unit that is independent from the business trading organisational unit and reports directly to the management, is responsible for designing and implementing the bank's risk-management system, producing and analysing daily reports on the output of the internal risk-measurement model and on the proposed measures to be taken in terms of position limits;

3) the daily reports produced by the risk-control organisational unit are submitted to a level of management with sufficient authority to enforce limits or reductions of the bank's overall risk exposures and positions taken by staff authorised for business trading;

4) the bank has sufficient staff skilled and trained in the use of sophisticated internal models in the risk-control organisational unit;

5) the bank has established procedures for monitoring and ensuring compliance with its internal acts and control mechanisms concerning the operation of the risk-measurement system;

6) the bank's internal risk-measurement model has a documented track record of reliability and accuracy demonstrated through back-testing and/or verification of the models against realised values, using at least one year of data;

7) the bank regularly conducts a rigorous programme of stress testing and the results of these tests are reviewed by the bank's management and reflected in changes to internal acts and limits it sets;

8) the internal audit of the bank conducts an independent review of its risk-management system at least annually. This review shall include both the activities of the business trading organisational unit and of the risk-control organisational unit;

9) at least once a year, the bank conducts a review of its risk-management system;

10) the internal model meets the requirements set out in Section 279, paragraphs 6 and 7 and Section 281 of this Decision.

A bank's internal risk-management model shall capture a sufficient number of relevant risk factors in order to capture all material price risks.

A bank may use empirical correlations within risk categories and across risk categories only where its system for measuring correlations is sound and comprehensive.

When applying for prior consent referred to in paragraph 1 of this Section, the bank shall present to the National Bank of Serbia appropriate documentation demonstrating the fulfilment of the requirements referred to in that paragraph.

The National Bank of Serbia may revoke the consent referred to in paragraph 1 of this Section if it establishes that the requirements referred to in that paragraph are no longer met.

172. Banks using the internal models approach shall calculate the fully adjusted exposure value (E*) according to the following formula:

$$E^* = max\ \{0, (\Sigma_i E_i - \Sigma_i C_i) + potential\ change\ in\ value\}$$

where:

E_i = the exposure value for each separate exposure i under the master netting agreement that would apply in the absence of the credit protection, calculated under the standardised or IRB Approach, as applicable, depending on the approach used by the bank;
C_i = the value of the securities purchased, borrowed or received or the cash borrowed or received in respect of each such exposure i.

When calculating risk-weighted exposure amounts using the internal models approach, banks shall use the previous business day's model output.

When calculating the potential change in value referred to in paragraph 1 of this Section, the bank shall ensure that the following standards are met:

1) these changes shall be calculated at least daily;
2) the calculation shall be based on a 99th percentile, one-tailed confidence interval;
3) the calculation shall be based on a 5-day liquidation period for repurchase transactions or securities lending or borrowing transactions, and on a 10-day liquidation period for other transactions;
4) the data time series shall not be shorter than a year, except where a shorter time series is justified by a significant upsurge in price volatility;
5) the data time series shall be updated at least every three months.

Where a bank has a repurchase transaction, a securities lending or borrowing transaction or margin lending or similar transaction or netting set which meets the criteria set out in Section 271, paragraphs 1 to 4 of this Decision, the minimum holding period shall be brought in line with the margin period of risk that would apply under those provisions, in combination with the provision of Section 271, paragraph 5 of this Decision.

For the purpose of adjusting the risk-weighted exposure amount for the effects of using master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions and/or other capital market-driven transactions, banks shall use the fully adjusted

exposure value (E*) as calculated under Section 172, paragraph 1 of this Decision as the value of exposures to the counterparty arising from transactions included in the master netting agreement for the purposes of Section 39 of this Decision under the Standardised Approach, or for the purposes of Part 2 of this Chapter under the IRB Approach.

Financial Collateral Simple Method

173. Banks may use the Simple Method only where they calculate risk-weighted exposure amounts under the Standardised Approach. A bank shall not use both the Simple Method and the Comprehensive Method, except for the purposes of Section 81, paragraph 1 and Section 83, paragraph 1 of this Decision. Banks shall not use this exception selectively with the purpose of achieving reduced capital requirements or with the purpose of conducting regulatory arbitrage.

Banks shall assign to eligible financial collateral a value equal to its market value as determined in accordance with Section 155, paragraph 1, item 7) of this Decision.

To the portion of exposure value up to the market value of financial collateral banks shall assign the risk weight that they would assign under Part 1 of this Chapter to a direct exposure to this collateral. The value of an off-balance sheet item shall be obtained by applying the 100% conversion factor rather than the conversion factors indicated in Section 37 of this Decision. The risk weight of the collateral shall be at least 20% except as specified in paragraphs 4 to 6 of this Section. Banks shall apply to the uncollateralised portion of the exposure value the risk weight that they would assign to an obligor under Part 1 of this Chapter.

Banks shall assign a risk weight of 0% to the collateralised portion of the exposure arising from repurchase transactions and securities lending or borrowing transactions which fulfil the criteria in Section 183 of this Decision. Where the counterparty to the transaction is not a core market participant, banks shall assign a risk weight of 10% to such transactions.

Banks shall assign a risk weight of 0% to the collateralised portion of the exposure determined under Part 5 of this Chapter for the financial derivatives listed in Annex 1 of this Decision and subject to daily marking-to-market, collateralised by cash or cash equivalents in the agreed currency of settlement of the financial derivative. Banks shall assign a risk weight of 10% to the portion of the exposures arising from financial derivatives collateralised by debt securities issued by central governments or central banks which are assigned a 0% risk weight under Part 1 of this Chapter.

For exposures arising from other transactions, banks may assign a 0% risk weight where the exposure and the collateral are denominated in the same currency, and the collateral is:

1) cash or a cash equivalent item; or
2) in the form of debt securities issued by central governments or central banks eligible for a 0% risk weight under Section 41 of this Decision, and its market value has been discounted by 20%.

For the purpose of paragraphs 5 and 6 of this Section, debt securities issued by central governments or central banks shall include:

1) debt securities issued by territorial autonomies and local government units which are assigned risk weights under Section 42 of this Decision in the way prescribed for exposures to central governments and central banks;
2) debt securities issued by multilateral development banks to which a 0% risk weight is assigned under Section 44 of this Decision;
3) debt securities issued by international organisations which are assigned a 0% risk weight under Section 45 of this Decision;
4) debt securities issued by public administrative bodies which are assigned a 0% risk weight under Section 43 of this Decision.

Financial Collateral Comprehensive Method

174. When valuing financial collateral, banks using the Comprehensive Method shall apply volatility adjustments to the market value of collateral as set out in Sections 180 to 183 of this Decision.

Where collateral is denominated in a currency that differs from the currency in which the underlying exposure is denominated, banks shall apply volatility adjustments for currency mismatch as set out in Sections 180 to 183 of this Decision.

In the case of OTC derivatives transactions covered by netting agreements under Part 5 of this Chapter, banks shall apply a volatility adjustment for currency mismatch where collateral is denominated in a currency that differs from the settlement currency. Even where multiple currencies are involved in the transaction, banks shall apply a single volatility adjustment for currency mismatch.

175. The volatility-adjusted value of collateral (C_{VA}) for all transactions except for those transactions subject to master netting agreements under Sections 169 to 172 of this Decision shall be calculated as follows:

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

where:

C = the value of the collateral,
H_C = the volatility adjustment appropriate to the collateral, as calculated under Sections 180 to 183 of this Decision,
H_{FX} = the volatility adjustment appropriate to currency mismatch, as calculated under Sections 180 to 183 of this Decision.

176. Banks shall calculate the volatility-adjusted value of the underlying exposure (E_{VA}) in accordance with the following formula:

$$E_{VA} = E \times (1+H_E),$$

where:

E = the exposure value as would be determined under the standardised or IRB Approach to credit risk, where the exposure was not collateralised;
H_E = the volatility adjustment appropriate to the underlying exposure, as calculated under Sections 180 to 183 of this Decision.

In the case of OTC derivative transactions:

$$E_{VA} = E$$

For the purpose of calculating exposure value E in paragraph 1 of this Section, banks shall use a conversion factor of 100% rather than:

– the conversion factor indicated in Section 37 of this Decision, for banks calculating risk-weighted exposure amounts under the Standardised Approach to credit risk,
– the conversion factor indicated in Section 113, paragraphs 8 to 10 of this Decision, for banks calculating risk-weighted exposure amounts under the IRB Approach to credit risk.

177. Banks shall calculate the fully adjusted and/or effective value of the exposure (E*), taking into account both volatility adjustments and the effects of credit risk-mitigating techniques, in accordance with the following formula:

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

where:

E_{VA} = the adjusted value of the underlying exposure under Section 176 of this

Decision,
C_{VAM} = the adjusted value of the collateral in accordance with the provisions of Subpart 5 of this Part.

178. Banks may calculate volatility adjustments either by using the supervisory volatility adjustments referred to in Section 180 of this Decision or own estimates of volatility adjustments referred to in Section 181 of this Decision, independently of the choice it has made between the Standardised Approach or the IRB Approach for the calculation of risk-weighted exposure amounts.

Where a bank uses its own volatility estimates, it shall do so for the full range of instrument types, excluding immaterial portfolios where it may use the supervisory volatility adjustments.

179. Where credit protection covering a single exposure consists of a number of eligible collateral items, banks shall apply the following volatility adjustment:

$$H = \Sigma_i a_i H_i$$

where:

H = volatility adjustment in the case of funded credit protection consisting of a number of eligible items,
a_i = the proportion of the value of an eligible item i in total credit protection, and
H_i = the volatility adjustment applicable to eligible item i.

Supervisory volatility adjustments under the Comprehensive Method

180. For daily valuation of exposures or collaterals, as applicable, banks shall apply the volatility adjustments set out in tables below (Tables 13-16) to calculate the adjusted value of underlying exposures and collaterals:

Table 13

Credit quality step with which the credit assessment of the debt security is associated	Residual maturity	Volatility adjustments for debt securities referred to in Section 139, paragraph 1, item 2) of this Decision			Volatility adjustments for debt securities referred to in Section 139, paragraph 1, items 3) and 4) of this Decision			Volatility adjustments for debt securities referred to in Section 139, paragraph 1, item 8) of this Decision		
		20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)	20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)	20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)
1	≤ 1 year	0.707	0.5	0.354	1.414	1	0.707	2.829	2	1.414
	>1 ≤ 5 years	2.828	2	1.414	5.657	4	2.828	11.314	8	5.657

Credit quality step with which the credit assessment of the debt security is associated	Residual maturity	Volatility adjustments for debt securities referred to in Section 139, paragraph 1, item 2) of this Decision			Volatility adjustments for debt securities referred to in Section 139, paragraph 1, items 3) and 4) of this Decision			Volatility adjustments for debt securities referred to in Section 139, paragraph 1, item 8) of this Decision		
		20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)	20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)	20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)
	> 5 years	5.657	4	2.828	11.314	8	5.657	22.628	16	11.313
2-3	≤ 1 year	1.414	1	0.707	2.828	2	1.414	5.657	4	2.828
	>1 ≤ 5 years	4.243	3	2.121	8.485	6	4.243	16.971	12	8.485
	> 5 years	8.485	6	4.243	16.971	12	8.485	33.942	24	16.970
4	≤ 1 year	21.213	15	10.607	-	-	-	-	-	-
	>1 ≤ 5 years	21.213	15	10.607	-	-	-	-	-	-
	> 5 years	21.213	15	10.607	-	-	-	-	-	-

Table 14

Credit quality step with which the short-term credit assessment of a debt security is associated	Volatility adjustments for debt securities referred to in Section 139, paragraph 1, item 2) of this Decision			Volatility adjustments for debt securities referred to in Section 139, paragraph 1, items 3) and 4) of this Decision			Volatility adjustments for debt securities referred to in Section 139, paragraph 1, item 8) of this Decision		
	20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)	20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)	20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)
1	0.707	0.5	0.354	1.414	1	0.707	2.829	2	1.414
2-3	1.414	1	0.707	2.828	2	1.414	5.657	4	2.828

Table 15

Other types of collateral or exposure	20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)
Main index shares or convertible bonds	21.213	15	10.607
Other shares or convertible bonds traded in a recognized exchange	35.355	25	17.678
Cash	0	0	0
Gold	21.213	15	10.607

Table 16

Volatility adjustments for currency mismatch		
20-day liquidation period (%)	10-day liquidation period (%)	5-day liquidation period (%)
11.314	8	5.657

Banks shall apply the volatility adjustments set out in this Section for the following liquidation periods:

1) 20 business days for secured lending transactions;

2) 5 business days for repurchase transactions (except insofar as such transactions involve commodities or guaranteed rights relating to commodities) and securities lending or borrowing transactions;

3) 10 business days for capital market driven transactions.

Where a bank has a transaction or netting set which meets the criteria set out in Section 271, paragraphs 1 to 4 of this Decision, the minimum holding period shall be brought in line with the margin period of risk prescribed by that Section.

In Tables 13 to 16, the credit quality step with which a credit assessment of the debt security is associated is the credit quality step determined based on the credit assessment assigned by an assessment institution or an export credit agency under Part 1, Subpart 3 of this Chapter. For the purpose of determining the credit quality step with which a credit assessment of the debt security is associated, the bank shall also apply the provisions of Section 139, paragraph 4 of this Decision.

For non-eligible securities or for commodities lent or sold under repurchase transactions or securities or commodities lending or borrowing transactions, the bank shall apply the same volatility adjustment as for non-main index equities listed on a recognised exchange.

For units in investment funds recognised as eligible collateral, banks shall apply:

– the volatility adjustment which represents the weighted average volatility adjustments that would apply to the assets in which the fund has invested, having regard to the liquidation period of the transaction as specified in paragraphs 2 and 3 of this Section, or

– the highest volatility adjustment that would apply to any of the assets in which the fund has the right to invest under its investment policy and the law regulating investment funds, where the assets the fund has invested in are not known to the bank.

For unrated debt securities issued by banks and satisfying the criteria in Section 140 of this Decision, the bank shall apply the volatility adjustment set out in this Section for securities issued by banks or companies with a credit assessment associated with credit quality steps 2 or 3.

Own estimates of volatility adjustments under the Comprehensive Method

181. Banks may, subject to prior consent of the National Bank of Serbia, use their own volatility estimates for calculating the volatility adjustments to be applied to collateral and underlying exposures where banks comply with the requirements set out in paragraph 4 of this Section. Banks which have obtained consent to use their own volatility estimates shall not revert to the use of other methods except for good cause demonstrated to the National Bank of Serbia and subject to prior consent of the National Bank of Serbia to revert to the use of another method.

Banks shall estimate volatility adjustments for each debt security or collateral item, as applicable. By derogation, banks shall estimate volatility adjustments at category level for debt securities that have a credit assessment from a nominated assessment institution equivalent to credit quality step 3 or better. Where the estimation is made at category level, the estimates shall be representative of all securities included in the relevant category. In assigning securities to the relevant categories, banks shall take into account the category of the issuer of the security, the credit assessment of the securities, their residual maturity and their modified duration.

Banks using the Own Estimates Approach shall estimate volatility adjustments for the collateral or foreign exchange mismatch without taking into account any correlations between the unsecured exposure, collateral and/or exchange rate.

The calculation of own estimates of volatility adjustments shall be subject to the following criteria:

1) banks shall base the calculation on a 99th percentile, one-tailed confidence interval;

2) banks shall estimate volatility adjustments according to the liquidation periods set out in Section 180, paragraph 2 of this Decision or, by derogation, according to shorter or longer liquidation periods, where it shall scale the adjustments up or down to the liquidation periods set out in that Section, using the following formula:

$$H_M = H_N \cdot \sqrt{T_M / T_N}$$

where:

T_N = the relevant liquidation period set out in Section 180, paragraph 2 of this Decision,
T_M = the liquidation period shorter or longer than T_N,
H_N = the volatility adjustment based on the liquidation period T_N,
H_M= the volatility adjustment based on the liquidation period T_M;

3) banks shall adjust the liquidation period upwards for lower-quality collateral whose liquidity is reduced, and where historical data may indicate a possibility of understated volatility. Such cases shall be covered by the stress tests;

4) the length of the historical observation period banks shall use for estimating volatility adjustments shall be at least one year even for banks that use a weighting scheme or another similar method, and the National Bank of Serbia may require a bank to estimate its volatility adjustments using a

shorter historical observation period where this is justified by a significant upsurge in price volatility;

5) banks shall regularly update their data time series and estimate volatility adjustments at least once every three months, or more frequently in the event of material changes to market prices;

6) banks shall use the volatility estimates in the day-to-day risk management process including in setting its exposure limits;

7) where the liquidation period used by a bank in its day-to-day risk management process is longer than that set out for that type of transaction, that bank shall ensure the application of the volatility adjustment calculated in accordance with the formula set out in item 2) of this paragraph;

8) in its internal acts, a bank shall regulate the manner and procedures for estimation of volatility adjustments and the integration of such estimations in its risk management process, and shall have in place an established system of internal controls that ensures consistent implementation of these acts;

9) a bank shall carry out an internal audit of its system for the estimation of volatility adjustments regularly, but at least once a year, which shall include in particular:

– the integration of estimated volatility adjustments into daily risk management,

– the validation of any significant change in the estimation process,

– verification of the consistency of the period and the reliability of data sources used in the estimation, including the independence of such data sources,

– the accuracy and appropriateness of the assumptions used in the estimation.

When applying for the consent referred to in paragraph 1 of this Section, the bank shall present to the National Bank of Serbia appropriate documentation demonstrating the fulfilment of the requirements set out in that paragraph.

The National Bank of Serbia may revoke the consent referred to in paragraph 1 of this Section if it establishes that the requirements referred to in that paragraph are no longer met.

Scaling up of volatility adjustment under the Comprehensive Method

182. Banks using their own estimates of the volatility adjustments shall calculate volatility adjustments on the basis of daily revaluation. Where the frequency of revaluation is less than daily, banks shall scale up volatility adjustments using the following formula:

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

where:

H = the volatility adjustment to be applied,
H_M = the volatility adjustment where there is daily revaluation of exposure/collateral,
N_R= the actual number of business days between two revaluations of exposure/collateral,
T_M= the liquidation period for the type of transaction in question.

Conditions for applying a 0% volatility adjustment under the Comprehensive Method

183. Instead of applying the volatility adjustments referred to in Sections 180 to 182 of this Decision, banks may apply a 0% volatility adjustment in relation to repurchase transactions and securities lending or borrowing transactions, irrespective of whether they use supervisory or own estimates of volatility adjustments, if the following conditions are met:

1) both the exposure and the collateral are cash or debt securities issued by central governments or central banks referred to in Section 139, paragraph 1, item 2) of this Decision and eligible for a 0% risk weight under Part 1 of this Chapter;
2) both the exposure and the collateral are denominated in the same currency;
3) either the maturity of the transaction is no more than one day or both the exposure and the collateral are subject to daily marking-to-market or daily re-margining, as applicable;
4) the time between the last marking-to-market (before a failure to re-margin) and the liquidation of the collateral is no more than four business days;
5) the transaction is settled in an appropriate securities settlement system;
6) the presented documentation is standard market documentation for repurchase transactions or securities lending and borrowing transactions;
7) it has been agreed that a party shall have the right to immediately terminate the transaction if the counterparty fails to deliver cash, deliver securities or otherwise defaults and/or fails to maintain the margin at the agreed level;
8) the counterparty is considered a core market participant.

The core market participants referred to in paragraph 1, item 8) of this Section shall include:

1) the entities issuing securities mentioned in Section 139, paragraph 1, item 2) of this Decision, assigned a 0% risk weight under Part 1 of this Chapter;

2) banks;

3) financial institutions (including insurance undertakings), exposures to which are assigned a 20% risk weight under Part 1 of this Chapter, or which, in the case of banks using the IRB Approach, are internally rated and do not have a credit assessment by an eligible assessment institution;

4) investment fund management companies supervised by a competent regulatory authority and subject to capital requirements or the highest level of participation of the amount of borrowed funds relative to capital;

5) voluntary pension fund management companies supervised by a competent regulatory authority;

6) recognised clearing house (e.g. clearing house in a recognised exchange).

Banks using the internal models under Section 170 of this Decision shall not apply the provisions of this Section.

Calculating risk-weighted exposure amounts and expected loss amounts under the Comprehensive Method

184. For the purpose of calculating the risk-weighted exposure amounts in accordance with Section 39 of this Decision, banks using the Standardised Approach to credit risk shall use E* as calculated under Section 177 of this Decision as the exposure value. In the case of off-balance sheet items listed in Section 37, paragraph 3 of this Decision, banks shall calculate E* as the exposure value to which the weights indicated in Section 37, paragraph 2 of this Decision are applied.

Banks using the IRB Approach to credit risk shall use the adjusted LGD (LGD*) calculated as follows:

$$LGD^* = LGD \times (E^*/E),$$

where:

LGD* = adjusted LGD,
LGD = the LGD that would apply to the exposure under Part 2 of this Chapter where the exposure was not collateralised;
E = the exposure value as would be determined under Section 176 of this Decision under the IRB Approach where the exposure was not collateralised, before applying conversion factors;
E* = the fully adjusted exposure value in accordance with Section 177 of this Decision.

Valuation principles for other eligible collateral under the IRB Approach

185. For immovable property collateral, the collateral shall be valued by a licenced valuer at or at less than the market value. A bank shall require the valuer to document the market value of immovable property in a transparent and clear manner.

The value of the immovable property shall be the market value reduced as appropriate to reflect the results of the revaluation required under Section 156 of this Decision and to take account of any prior claims on the property.

For receivables as eligible collateral, the value of the receivables shall be the amount of the receivables serving as collateral.

The value of other physical assets serving as eligible collateral shall be their market value. For the purposes of this paragraph, the market value is the estimated amount for which the property would exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction.

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

186. Where the ratio of the value of the collateral (C) to the exposure value (E) is below the required minimum collateralisation level of the exposure (C*) as laid down in the table in this Section (Table 17), the bank shall use as the adjusted LGD the LGD laid down in this Part for uncollateralised exposures to the counterparty. Banks shall calculate the exposure value of off-balance sheet items listed in Section 113, paragraphs 8 to 10 of this Decision by using a conversion factor of 100%.

Where the ratio of the value of the collateral (C) to the exposure value (E) exceeds a second highest required collateralisation level of the exposure for full recognition of LGD (C**) as laid down in Table 17, banks shall apply the adjusted LGD prescribed in that table.

Where the ratio of the value of the collateral (C) to total exposure value (E) is higher than collateralisation level C* and lower than collateralisation level C**, banks shall treat this exposure as two separate exposures: one in respect of which the required level of collateralisation C** is achieved and one corresponding to the difference between the total exposure and the exposure in respect of which this level is achieved.

The required collateralisation levels and the associated LGD* which the banks shall apply are set out in the table below:

Table 17

Minimum LGD for secured parts of exposures

	Adjusted LGD for (potential) senior exposure	Adjusted LGD for (potential) subordinated exposures	Required minimum collateralisation level of the exposure (C*)	Required minimum collateralisation level of the exposure for full recognition of adjusted LGD (C**)
Receivables	35%	65%	0%	125%
Residential and commercial real estate	35%	65%	30%	140%
Other physical collateral	40%	70%	30%	140%

Calculating risk-weighted exposure amounts and expected loss amounts in the case of mixed pools of collateral

187. For the purpose of Part 2 of this Chapter, banks shall use LGD* calculated in accordance with paragraphs 2 and 3 of this Section where the following conditions are met:

1) the bank uses the IRB Approach to credit risk to calculate risk-weighted exposure amounts and expected loss amounts;
2) the exposure is collateralised by both financial collateral and other eligible collateral.

Where the exposure is secured by mixed pools of collateral, banks shall be required to subdivide the adjusted value of the exposure (i.e. the value obtained by applying the volatility adjustment as set out in Section 177 of this Decision) into parts so that each part is covered by one type of collateral only (e.g. a part covered by financial collateral, a part covered by receivables, a part covered by residential property or commercial immovable property collateral, a part covered by other physical collateral) and the unsecured part.

Banks shall calculate the relevant LGD* for each part of the exposure referred to in paragraph 2 of this Section separately.

Other funded credit protection

188. Where the conditions set out in Section 160 of this Decision are met, cash and/or cash equivalents may be treated as a guarantee by the bank with which they are deposited.

Where the conditions set out Section 161 of this Decision are met, banks shall subject the collateralised portion of the exposure (exposure value up to the surrender value of life insurance policies) to:

1) risk weights specified in paragraph 4 of this Section, where the calculation of risk-weighted exposure amounts is subject to the Standardised Approach;

2) an LGD of 40%, where the calculation of risk-weighted exposure amounts is subject to the FIRB Approach.

In the event of a currency mismatch between the exposure and the eligible credit protection, banks shall reduce the surrender value of life insurance policies in accordance with Section 189, paragraph 3 of this Decision.

Banks using the Standardised Approach shall apply the following risk weights to the secured part of the underlying exposure:

1) 20% where the senior unsecured exposure to the undertaking providing the life insurance is assigned a risk weight of 20%;

2) 35% where the senior unsecured exposure to the undertaking providing the life insurance is assigned a risk weight of 50%;

3) 70% – where the senior unsecured exposure to the undertaking providing the life insurance is assigned a risk weight of 100%;

4) 150% – where the senior unsecured exposure to the undertaking providing the life insurance is assigned a risk weight of 150%.

Banks may treat financial instruments repurchased on request that are considered eligible under Section 148, paragraph 1, item 3) of this Decision as a guarantee by the issuing bank. The value of these instruments shall be the following:

1) their face value, where the instrument will be repurchased at face value, or

2) their value determined in the way prescribed for valuation of debt securities in Section 140 of this Decision, where the instrument will be repurchased at market price.

b) Unfunded credit protection

Valuation of unfunded credit protection

189. The value of unfunded credit protection shall be the amount that the protection provider has undertaken to pay to the bank in the event of the default or non-payment of the borrower of the bank or on the occurrence of other specified credit events.

In the case of credit derivatives which do not include as a credit event

restructuring of the underlying obligation involving write-off or postponement of repayment of principal, interest or fees that result in a loss (e.g. allowances for impairment or other similar changes in the income statement), a bank shall adjust the value of unfunded credit protection as follows:

1) where the amount that the protection provider has undertaken to pay is not higher than the exposure value, the bank shall reduce the value of the credit protection by 40%, or

2) where the amount that the protection provider has undertaken to pay is higher than the exposure value, this nominal amount shall be no higher than 60% of the exposure value.

Where unfunded credit protection is denominated in a currency different from that in which the exposure is denominated, i.e. where there is a currency mismatch, banks shall calculate the adjusted value of the credit protection as follows:

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

where:

G^* = the amount of unfunded credit protection adjusted for currency mismatch;
G = the nominal amount of the unfunded credit protection;
H_{fx} = the volatility adjustment for any currency mismatch between the credit protection and the underlying exposure determined in accordance with paragraph 5 of this Section.

Where the exposure and the credit protection are denominated in the same currency $H_{fx} = 0$.

Banks shall base the volatility adjustments for any currency mismatch on a 10 business day liquidation period, assuming daily revaluation, and may calculate them based on the prescribed volatility adjustments or own estimates of volatility adjustments as set out in Sections 180 and 181 of this Decision. Banks shall scale up the volatility adjustments in accordance with Section 182 of this Decision.

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

190. Where a bank transfers a part of the risk of a loan to other persons in one or more tranches, it shall apply the provisions of Part 4 of this Chapter when calculating risk-weighted exposure amounts and expected loss amounts. The materiality threshold, i.e. the amount below which no payment

shall be made in the event of loss, shall be equivalent to retained first loss positions and give rise to a tranched transfer of risk.

Calculating risk-weighted exposure amounts under the Standardised Approach

191. For the purposes of Section 39 of this Decision, banks shall calculate the risk-weighted exposure amounts adjusted for the effects of using unfunded credit protection in accordance with the following formula:

$$\max \{0, (E-G_A\} \times r + G_A \times g,$$

where:

E = the exposure value in accordance with Section 37 of this Decision; in the case of off-balance sheet items, 100% shall be applied instead of the conversion factors indicated in Section 37, paragraph 2 of this Decision;
G_A = the amount of unfunded credit protection (G*) as calculated under Section 189 of this Decision adjusted for any maturity mismatch as laid down in Subpart 5 of this Part;
r = the risk weight of the underlying exposure assigned in accordance with Part 1 of this Chapter;
g = the risk weight of exposures to the protection provider assigned in accordance with Part 1 of this Chapter.

Where the amount of unfunded credit protection (G_A) is less than the exposure (E), banks may apply the formula specified in paragraph 1 of this Section only where the claims of the bank and the protection provider are of equal seniority, or subject to proportional losses.

Banks may extend the treatment set out in Section 41, paragraphs 3 and 5 of this Decision to exposures or parts of exposures guaranteed by the central government or central bank, where the guarantee and the exposure are denominated and funded in the domestic currency of the borrower.

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

192. Banks applying the IRB Approach may, for the covered portion of the exposure value (E), based on the adjusted value of the credit protection G_A, use the PD of the protection provider or a PD between that of the borrower and that of the protection provider where a full substitution is deemed not to be warranted. In the case of subordinated exposures secured by non-subordinated unfunded credit protection, the LGD to be applied by banks may be that associated with senior claims.

For any uncovered portion of the exposure value (E) the PD shall be that of the borrower and the LGD shall be that of the underlying exposure.

For the purposes of this Section, G_A is the amount of unfunded credit protection (G*) as calculated under Section 189 of this Decision adjusted for any maturity mismatch as laid down in Subpart 5 of this Chapter. E is the exposure value determined in accordance with Part 2, Subpart 4 of this Chapter. For the purpose of calculating the exposure value of off-balance sheet items listed in Section 113, paragraphs 8 to 10 of this Decision, banks shall apply a conversion factor of 100%.

5. Maturity mismatch

193. A maturity mismatch between credit protection and the underlying exposure occurs when the residual maturity of the credit protection is less than the M of the underlying exposure. Where credit protection has a residual maturity of less than three months and there is a maturity mismatch, that protection does not qualify as eligible credit protection.

Where there is a maturity mismatch the credit protection shall not qualify as eligible where either of the following conditions is met:

– the originally agreed maturity of the credit protection is less than 1 year;

– the exposure is a short-term exposure and subject to a one-day floor in respect of the maturity value (M) under Section 109, paragraph 3 of this Decision.

Maturity of credit protection

194. The maturity value of the underlying exposure shall be expressed in years and shall be no longer than five years. The residual maturity of the credit protection shall be the time to the earliest date at which the credit protection may terminate or be terminated.

Where there is an option to terminate the protection which is at the discretion of the credit protection provider, the residual maturity of the credit protection shall be the time to the earliest date at which that option may be exercised by the credit protection provider.

Where there is an option to terminate the protection which is at the discretion of the protection buyer and the terms agreed in relation to credit protection contain a provision allowing the bank to call the transaction before contractual maturity, the residual maturity of the credit protection shall be the

time to the earliest date at which that option may be exercised. Otherwise, the bank may consider that such an option does not affect the maturity of the protection.

Where a credit derivative contract may be terminated prior to expiration of any period required for a default on the underlying obligation to occur as a result of a failure to pay, the maturity of the credit protection shall be reduced by the length of that period.

Valuation of credit protection

195. Banks adjusting the risk-weighted exposure amount for the effects of funded credit protection under the Simple Method may not adjust such assets for the effects of that credit protection where there is a mismatch between the maturity of the protection and that of the exposure.

196. Banks adjusting the risk-weighted exposure amount for the effects of funded credit protection under the Comprehensive Method shall determine the adjusted value of the collateral according to the following formula:

$$C_{VAM} = C_{VA} \times (t-t^*)/(T-t^*)$$

where:

C_{VAM} = the adjusted value of the collateral;
C_{VA} = the exposure amount or the volatility adjusted value of the collateral calculated under Section 175 of this Decision, whichever is lower;
t = the number of years remaining to the maturity date of funded credit protection calculated in accordance with Section 194 of this Decision, or the value of T, whichever is lower;
T = the number of years remaining to the maturity date of the funded credit protection calculated in accordance with Section 194 of this Decision, or five years, whichever is lower;
$t^* = 0.25$.

Banks shall use C_{VAM} as C_{VA} for calculating the fully adjusted value of the exposure (E*) set out in Section 177 of this Decision.

197. Banks adjusting the risk-weighted exposure amount for the effects of unfunded credit protection shall determine the adjusted value of the collateral according to the following formula:

$$G_A = G^* \times (t-t^*)/(T-t^*)$$

where:

G_A = G* adjusted for any maturity mismatch,
G* = the amount of unfunded credit protection adjusted for any currency mismatch,
t = the number of years remaining to the maturity date of the funded credit protection calculated in accordance with Section 194 of this Decision, or the value of T, whichever is lower;
T = the number of years remaining to the maturity date of the funded credit protection calculated in accordance with Section 194 of this Decision, or five years, whichever is lower;
t* = 0.25.

Banks shall use G_A as the value of unfunded credit protection for the purpose of calculating the fully adjusted exposure value (E*) set out in Sections 189 to 192 of this Decision.

6. Basket of credit derivatives as credit protection

a) First-to-default credit derivatives

198. Where a bank obtains one credit protection for a number of exposures under terms that the first default among the exposures shall trigger payment and that this credit event shall terminate the contract, the bank may amend the calculation of the risk-weighted exposure amount (and the expected loss amount) which would, in the absence of the credit protection, produce the lowest risk-weighted exposure amount in accordance with this Part, as follows:

1) for banks using the Standardised Approach, the risk-weighted exposure amount shall be that calculated under the Standardised Approach referred to in Part 1 of this Chapter;
2) for banks using the IRB Approach, the risk-weighted exposure amount shall be the sum of the risk-weighted exposure amount calculated under the IRB Approach referred to in Part 2 of this Chapter and 12.5 times the expected loss amount.

The bank may apply the provisions set out in this Section only where the exposure value is less than or equal to the value of the credit protection.

b) Nth-to-default credit derivatives

199. Where a bank obtains one credit protection for a number of exposures under terms that the nth default among the exposures triggers

payment, the bank may use this credit protection for the calculation of risk-weighted exposure amounts (and the expected loss amounts) only where eligible protection has already been obtained for defaults 1 to (n-1) or when (n-1) defaults have already occurred. In such cases, the bank may amend the calculation of the risk-weighted exposure amount (and the expected loss amount) which would, in the absence of the credit protection, produce the n-th lowest risk-weighted exposure amount in accordance with this Part. Banks shall calculate the nth lowest risk-weighted exposure amount in accordance with Section 198 of this Decision.

The bank may apply the provisions set out in this Section only where the exposure value is less than or equal to the value of the credit protection.

All exposures in the basket shall meet the requirements laid down in Section 152, paragraph 4 and Section 165, paragraph 1, item 4) of this Decision.

Part 4

Securitisation

1. Minimum requirements for recognition of significant credit risk transfer

200. A bank shall be deemed to have transferred significant credit risk in securitisation in the following cases:

1) the risk-weighted exposure amounts of the mezzanine securitisation positions held by the originator bank shall not exceed 50% of the risk-weighted exposure amounts of all mezzanine securitisation positions existing in this securitisation;

2) where there are no mezzanine securitisation positions in a given securitisation and the originator bank can demonstrate that the exposure value of the securitisation positions that would be subject to deduction from Common Equity Tier 1 capital or a 1,250% risk weight exceeds a conservative estimate of the expected loss on the securitised exposures by a substantial margin, the originator bank does not hold more than 20% of such exposures.

By derogation from paragraph 1 of this Section, when assessing the potential reduction of risk-weighted exposure amounts which the originator bank achieves by the securitisation, the National Bank of Serbia may, in every case of a securitisation, decide that:

– despite meeting the criteria from paragraph 1 of this Section, the bank did not transfer significant credit risk, where the reduction is not justified by a commensurate and material transfer of credit risk to third parties;

– despite failing to meet the criteria referred to in paragraph 1 of this Section, where the bank is able to demonstrate that the reduction is justified by a commensurate and material transfer of credit risk to third parties, adequate policies and procedures are in place to assess the transfer of risk and the transfer of credit risk is used for the purposes of the bank's risk management and internal capital allocation.

a) Minimum requirements for recognition of significant credit risk transfer in a traditional securitisation

201. The originator bank of a traditional securitisation may exclude securitised exposures from the calculation of risk-weighted exposure amounts and, as relevant, expected loss amounts in the following cases:

1) if it has transferred significant credit risk associated with the securitised exposures to third parties;

2) if it applies a 1,250% risk weight to all securitisation positions it holds in this securitisation or deducts these securitisation positions from Common Equity Tier 1 items.

A bank shall be considered to have transferred significant credit risk if the following requirements are met, in addition to the requirements set out in Section 200 of this Decision:

1) the securitisation documentation clearly reflects the economic substance of the transaction, and:

– does not contain clauses that, other than in the case of early amortisation provisions, require positions in the securitisation to be improved by the originator bank including but not limited to altering the underlying securitised exposures or increasing the yield payable to holders of securitisation positions in response to a deterioration in the credit quality of the securitised exposures;

– does not contain clauses that increase the yield payable to holders of positions in the securitisation in response to a deterioration in the credit quality of the underlying pool;

– clearly defines, where applicable, that any purchase or repurchase of securitisation positions by the originator bank or sponsor beyond its contractual obligations is exceptional and may only be made at market conditions;

2) the securitised exposures are put beyond the reach of the originator bank and its creditors, including in case of liquidation or bankruptcy of the originator bank. This shall be supported by a relevant legal opinion;

3) the securities issued do not represent payment obligations of the originator bank;

4) the originator bank does not maintain direct or indirect control over the transferred exposures, which means that the originator bank does not have the right to repurchase from the transferee the previously transferred exposures in order to realise their benefits nor is it obligated to re-assume transferred risk. The originator bank's retention of servicing rights or obligations in respect of the transferred exposures shall not of itself constitute control of the exposures;

5) where there is a clean-up call option, that option shall also meet the following conditions:

– it is exercisable at the discretion of the originator bank,

– it may only be exercised when 10% or less of the original value of the securitised exposures remains unamortised,

– it is not structured to avoid allocating losses to credit enhancement positions (or other positions held by investors) and is not otherwise structured to provide credit enhancement.

b) Minimum requirements for recognition of significant credit risk transfer in a synthetic securitisation

202. An originator bank of a synthetic securitisation may exclude securitised exposures from the calculation of risk-weighted exposure amounts, and, as relevant, expected loss amounts, in accordance with Subpart 5 of this Part, in the following cases:

1) if it has transferred significant credit risk to third parties either though funded or unfunded credit protection;

2) if it applies a 1,250% credit risk weight to all securitisation positions it holds in this securitisation or deducts these securitisation positions from Common Equity Tier 1 items.

A bank shall be considered to have transferred significant credit risk if the following requirements are met, in addition to the requirements set out in Section 200 of this Decision:

1) the credit protection by which the credit risk is transferred complies with the conditions set out in Section 217, paragraph 3 of this Decision;

2) the instruments used to transfer credit risk do not contain terms that:

– impose significant materiality thresholds below which credit protection is deemed not to be triggered if a credit event occurs,

– allow for the termination of credit protection due to deterioration of the credit quality of the securitised exposures,

– require positions in the securitisation to be improved by the originator bank (other than in the case of early amortisation provisions),

– require an increase in the bank's cost of credit protection or the yield payable to holders of positions in the securitisation in response to a deterioration in the credit quality of the securitised exposures;

3) a relevant legal opinion is obtained confirming the enforceability of the credit protection under applicable law;

4) the securitisation documentation shall make clear, where applicable, that any purchase or repurchase of securitisation positions by the originator bank or sponsor beyond its contractual obligations may only be made at market conditions.

2. Exposures to transferred credit risk

a) Requirements for investor banks

203. A bank, other than when acting as an originator, a sponsor or original lender, shall be exposed to the credit risk of a securitisation position in its trading book or non-trading book only if the originator, sponsor or original lender has undertaken to the bank that it will retain, on an ongoing basis, a material net economic interest which, in any event, shall not be less than 5%.

Only any of the following qualifies as retention of a net economic interest of not less than 5% referred to in paragraph 1 of this Section:

1) retention of no less than 5% of the nominal value of each of the tranches sold or transferred to the investors;

2) in the case of securitisations of revolving exposures, retention of the originator's interest of no less than 5% of the nominal value of the securitised exposures;

3) retention of randomly selected exposures which would otherwise have been securitised in the securitisation (provided that the number of potentially securitised exposures is no less than 100 at origination), equivalent to no less than 5% of the nominal value of the securitised exposures;

4) retention of the first loss tranche and, if necessary, other tranches having the same or a more severe risk profile and not maturing any earlier than those transferred or sold to investors, so that the retention equals in total no less than 5% of the nominal value of the securitised exposures;

5) retention of a first loss exposure not less than 5% of every securitised exposure in the securitisation.

Net economic interest is measured at the origination and shall be maintained on an ongoing basis.

The net economic interest, including retained positions, interest or exposures, shall not be subject to any credit protection, internal hedge or sale or any short positions.

The net economic interest for off-balance sheet items shall be determined by their notional value.

There shall be no multiple applications of the retention requirements for any given securitisation.

204. By derogation from Section 203 of this Decision, the requirement referred to in that Section shall be considered satisfied on a consolidated basis by a parent company which is a bank from the Republic of Serbia or the European Union where such parent company or one of its subsidiaries, as an originator or a sponsor, securitises exposures from several banks, investment firms or financial institutions which are included in the scope of supervision on a consolidated basis.

The treatment set out in paragraph 1 shall apply only where banks, investment firms or financial institutions whose exposures were securitised meet the requirements set out in Section 210 of this Decision and deliver, in a timely manner, to the originator or sponsor and to the parent company from paragraph 1 of this Section, the information needed to satisfy the requirements referred to in Section 211 of this Decision.

205. Section 203 of this Decision shall not apply where the following entities are obligors of securitised exposures or if those entities guarantee fully, unconditionally and irrevocably for such exposures:

1) central government or central bank;
2) territorial autonomy and local government unit or public administrative body;
3) bank to which a 50% risk weight or less is assigned under Part 1 of this Chapter;
4) multilateral development bank.

Section 203 of this Decision shall not apply to transactions based on a clear, transparent and accessible index, where the underlying instruments are identical to those that make up a stock index, or are other

instruments tradable in recognised exchanges other than securitisation positions.

206. Before and after investment, banks shall have a comprehensive and thorough understanding of each of their securitisation positions, and have in place internal acts appropriate to their trading book and non-trading book and commensurate with the risk profile of their investments in securitised positions for analysing and reporting on:

1) information disclosed under Section 203 of this Decision by originators or sponsors to calculate the net economic interest that they maintain, on an ongoing basis, in the securitisation;
2) the risk characteristics of the individual securitisation positions;
3) the risk characteristics of the exposures underlying the securitisation positions;
4) the reputation and loss experience in earlier securitisations of the originators or sponsors in the relevant exposure classes underlying the securitisation positions;
5) the statements and disclosures made by the originators or sponsors, or their servicers, about their due diligence on the securitised exposures and, where applicable, on the quality of the collateral supporting the securitised exposures;
6) where applicable, the methodologies and concepts on which the valuation of collateral supporting the securitised exposures is based and the internal acts of the originator or sponsor to ensure the independence of the valuer;
7) all the structural features of the securitisation that can materially impact the performance of the bank’s securitisation positions, such as the contractual waterfall and waterfall related triggers, credit enhancements, liquidity enhancements, market value triggers, and specific definitions of default.

207. Banks shall regularly perform stress tests appropriate to their securitisation positions.

For the purpose of performing the stress tests referred to in paragraph 1 of this Section, banks may rely on financial models developed by a credit assessment agency provided that banks can demonstrate that they validated prior to investment the relevant assumptions in and structuring of the models and that they thoroughly understand the methodology, assumptions and results of the models.

208. Banks (other than when acting as originators or sponsors or original lenders) shall establish procedures appropriate to their trading book and non-trading book and commensurate with the risk profile of their

investments in securitised positions to monitor on an ongoing basis and in a timely manner information on the exposures underlying their securitisation positions.

Where relevant, the information referred to in paragraph 1 shall include:

– exposure type,
– the percentage of loans more than 30, 60 or 90 days past due,
– default rates,
– prepayment rates,
– loans in foreclosure,
– collateral type and occupancy,
– frequency distribution and/or the percentage or number of observations for each of credit scores or other measures of credit worthiness across underlying exposures
– industry and geographical diversification,
– frequency distribution and/or the percentage or number of observations for each value of the LTV ratio (ratio of loan amount to the appraised market value of the underlying collateral) with band widths that facilitate adequate sensitivity analysis.

Where the underlying exposures are themselves securitisation positions, banks shall have the information set out in the paragraph above not only on the underlying securitisation tranches (e.g. the issuer name and credit quality), but also on the characteristics and performance of the pools underlying those securitisation tranches.

Banks shall apply the same standards of analysis to participations or underwritings in securitisation, for ABCP/securitisation tranches purchased from third parties, regardless of whether they intend to hold these positions on their trading or non-trading book.

209. Where a bank does not meet the requirements in Sections 203 to 208 or Section 211 of this Decision, the National Bank of Serbia shall impose an additional risk weight of no less than 250% (capped at 1,250%) which shall apply to the relevant securitisation positions and shall be used for the purposes of the calculation referred to in Section 215, paragraph 7 and Section 340 of this Decision. This additional risk weight shall progressively increase with each subsequent infringement of the due diligence provisions set out in Sections 206 to 208 of this Decision.

b) Requirements for sponsor or originator banks

210. Sponsor or originator banks, as applicable, shall apply the same criteria for credit-granting, and processes for amending, renewing and re-financing credits in accordance with the decision regulating risk management of banks, to exposures to be securitised as they apply to exposures held in their own non-trading book.

Where the originator bank does not meet the requirements referred to in paragraph 1 of this Section, the provisions of Section 215, paragraph 1 of this Decision shall not apply and that originator bank shall not be allowed to exclude from the calculation of its capital requirements the securitised exposures.

211. Banks acting as a sponsor, an originator or original lender shall disclose to investors information on the activities relating to maintaining the net economic interest in the securitisation under Section 203 of this Decision.

The bank referred to in paragraph 1 of this Section shall ensure that investors have readily available access to all materially relevant data on the credit quality and performance of the individual underlying exposures, cash flows and collateral supporting a securitisation exposure as well as such information that is necessary to conduct high-quality stress tests on the cash flows and collateral values supporting the underlying exposures.

Banks shall define the data referred to in paragraph 2 of this Section for a given securitisation as at the date of the securitisation, and where appropriate due to the nature of the securitisation thereafter.

3. Use of credit assessments

212. Banks may use credit assessments of an assessment institution to determine the credit risk weight of a securitisation position only where the National Bank of Serbia has recognised the eligibility of the credit assessments of the nominated assessment institution for these purposes.

213. For the purposes of calculating risk-weighted exposure amounts of securitisation positions in accordance with Subpart 4 of this Part, the bank may only use credit assessments if the following conditions are met:

– there shall be no mismatch between the types of payments reflected in the credit assessment and the types of payment to which the bank is entitled under the contract giving rise to the securitisation position in question;

– loss and cash-flow analysis as well as sensitivity of ratings to changes in the underlying assumptions, including the performance of pool assets, shall be published by the assessment institution as well as the credit

assessments, procedures, methodologies, assumptions, and the key elements underpinning the credit assessments of this institution. Information that is made available only to a limited number of entities shall not be considered to have been published. The credit assessments shall be included in the assessment institution's transition matrix;

– the credit assessment shall not be partly or fully based on unfunded protection provided by the bank itself. In such case, the relevant position for the purposes of calculating risk-weighted exposure amounts shall be considered as if it were not rated.

214. A bank may nominate one or more assessment institutions the credit assessments of which shall be used in the calculation of its risk-weighted exposure amounts for securitisation positions.

A bank shall use credit assessments of the nominated institution consistently and on an ongoing basis in respect of all its securitisation positions, in accordance with the following principles:

– a bank may not use the credit assessments of several different assessment institutions for positions in different tranches within the same securitisation;

– where a position has two credit assessments by nominated assessment institutions which, according to the allocation of credit assessments to credit quality steps, correspond to different risk weights, the bank shall use the credit assessment corresponding to a higher risk weight;

– where a position has three or more credit assessments by nominated assessment institutions which, according to the allocation of credit assessments to credit quality steps, correspond to different risk weights, the bank shall use the lower of the two highest risk weights; if they correspond to the same risk weight, the bank shall use that weight;

– a bank shall not request or otherwise influence the withdrawal of unfavourable ratings.

Where credit protection eligible under Part 3 of this Chapter is provided directly to the SSPE, and that protection is reflected in the credit assessment of the position by a nominated assessment institution, the bank may use the risk weight associated with that credit assessment, but shall not recognise this credit protection for other purposes. Banks shall not use the credit assessment which takes into account the effects of credit protection not provided to the SSPE but directly to a securitisation position.

4. Calculation of risk-weighted exposure amounts for securitisation positions

215. Where an originator bank has transferred significant credit risk associated with securitised exposures in accordance with Subpart 1 of this Part, that bank may:

1) in the case of a traditional securitisation, exclude from its calculation of risk-weighted exposure amounts, and, as relevant, expected loss amounts, the exposures which it has securitised;

2) in the case of a synthetic securitisation, calculate risk-weighted exposure amounts, and, as relevant, expected loss amounts, in respect of the securitised exposures in accordance with Subpart 5 of this Part.

Where the originator bank applies the treatment set out in paragraph 1 of this Section, it shall calculate the risk-weighted exposure amounts for the positions that it may hold in the securitisation in accordance with this Part.

Where the originator bank has not transferred significant credit risk in respect of securitised exposures or has not applied the treatment set out in paragraph 1 of this Section, it shall not calculate risk-weighted exposure amounts for any positions it may have in the securitisation in question but shall continue including the securitised exposures in its calculation of risk-weighted exposure amounts as if they had not been securitised.

Where there is an exposure to different tranches in a securitisation, the exposure to each tranche shall be considered a separate securitisation position. The providers of credit protection to securitisation positions shall be considered to hold positions in the securitisation. Banks shall include in securitisation positions the exposures to a securitisation arising from interest rate or currency derivative contracts.

The risk-weighted exposure amount of securitisation positions shall be included in the calculation of bank’s total risk-weighted exposure amounts, unless securitisation positions are deducted from Common Equity Tier 1 items.

The risk-weighted exposure amount of a securitisation position shall be calculated by applying to the exposure value, calculated as set out in Section 216 of this Decision, the relevant total risk weight.

The total risk weight shall be determined as the sum of the risk weights set out in this Subpart and any additional risk weights in accordance with Section 209 of this Decision.

216. The exposure value of securitisation positions shall be equal to:

1) where a bank uses the Standardised Approach:

– for on-balance sheet exposures – the net accounting value (gross accounting value less any specific credit risk adjustments) of securitisation positions,

– for off-balance sheet exposures – the gross accounting value, less any specific credit risk adjustments for off-balance sheet items, multiplied by a conversion factor as prescribed in this Decision. Banks shall apply the 100% conversion factor, unless otherwise specified;

2) where a bank uses the IRB Approach:

– for on-balance sheet exposures – the gross accounting value of securitisation positions,

– for off-balance sheet exposures – the gross accounting value multiplied by a conversion factor as prescribed in this Decision. Banks shall apply the 100% conversion factor, unless otherwise specified;

3) the exposure value for the counterparty credit risk of a financial derivative listed in Annex 1 to this Decision shall be determined in accordance with Part 5 of this Decision.

Where a bank has two or more overlapping positions in a securitisation, it shall, to the extent that they overlap, include in its calculation of risk-weighted exposure amounts only the position or portion of a position producing the higher risk-weighted exposure amounts. The bank may also recognise such overlap between specific risk capital requirements for positions in the trading book and capital requirements for securitisation positions in the non-trading book, provided that the bank is able to calculate and compare the capital requirements for the relevant positions. For the purpose of this paragraph, overlapping occurs when the positions, wholly or partially, represent an exposure to the same risk such that, to the extent of the overlap, there is a single exposure.

Where Section 213, paragraph 1, indent three of this Decision applies to positions in the ABCP programme, the bank may use the risk weight assigned to a liquidity facility in order to calculate the risk-weighted exposure amount for the ABCP programme provided that 100% of the ABCP programme is covered by this or other liquidity facilities and all of those liquidity facilities rank pari passu with the ABCP programme so that they form overlapping positions. The bank shall notify the National Bank of Serbia of whether it uses this treatment and how it uses it.

217. A bank may recognise funded or unfunded credit protection obtained in respect of a securitisation position in accordance with Part 3 of this Chapter, subject to the requirements laid down in that and this Part.

Eligible funded credit protection is limited to financial assets which are recognised for the calculation of adjustments to risk-weighted exposure amounts under the Standardised Approach to credit risk and subject to compliance with the relevant requirements as laid down under Part 3 of this Chapter.

Eligible unfunded credit protection and unfunded credit protection providers are limited to those which are defined as eligible under Part 3 of this Chapter and recognition is subject to compliance with the relevant requirements laid down under that Part.

By way of derogation from paragraph 3 of this Section, the eligible providers of unfunded credit protection listed in Section 149 of this Decision, except for QCCP entities, shall have a credit assessment by a nominated assessment institution which corresponds to credit quality step 3 or above, or credit quality step 2 or above, as applicable, at the time the credit protection was first recognised. Banks granted consent of the National Bank of Serbia to apply the IRB Approach to a direct exposure to credit protection providers may assess the eligibility of the unfunded credit protection provider referred to in this paragraph by comparing the PD for the protection provider to the PD associated with credit quality steps.

By way of derogation from paragraph 3 of this Section, SSPEs are eligible protection providers where they own assets that qualify as eligible financial assets and to which there are no (contingent) rights preceding or ranking pari passu to the contingent rights of the bank receiving unfunded credit protection and all requirements for the recognition of financial assets as eligible credit protection in Part 3 of this Chapter are fulfilled. In those cases, G_A (the amount of the unfunded credit protection volatility adjusted for any currency mismatch and maturity mismatch in accordance with the provisions of Part 3 of this Chapter) shall be equal to the volatility adjusted market value of those assets and g (credit risk weight of exposures to the protection provider as specified under the Standardised Approach) shall be determined as the weighted-average risk weight that would apply to those assets under the Standardised Approach.

218. A sponsor bank, or an originator bank which in respect of a securitisation has made use of Section 215 of this Decision in the calculation of risk-weighted exposure amounts or has sold instruments from its trading book to the effect that it is no longer required to hold capital for the risks of those instruments shall not, with a view to reducing potential or actual losses to investors, provide support to the securitisation beyond its contractual obligations. A transaction shall not be considered to provide support if it is executed at market conditions and taken into account in the assessment of significant risk transfer. Any such transaction shall be, regardless of whether

it provides support, subject to the bank's approval review and credit risk assessment process and notified to the National Bank of Serbia. The bank shall, when assessing whether the transaction is structured to provide support, consider at least the following:

– the price of the repurchase,
– the bank's capital and liquidity position before and after repurchase,
– the quality of the securitised exposures,
– the quality of the securitisation positions, and
– the impact of support on the losses expected to be incurred by the originator relative to investors.

If an originator bank or a sponsor bank fails to comply with paragraph 1 of this Section in respect of a securitisation, this bank shall at a minimum hold capital against all of the securitised exposures as if they had not been securitised.

a) Calculation of risk-weighted exposure amounts under the Standardised Approach

219. The bank shall calculate the risk-weighted exposure amount of a rated securitisation and re-securitisation position by applying the relevant risk weight to the exposure value as set out in Table 18, on the basis of credit risk assessment of the position in accordance with Sections 212 to 214 of this Decision.

Table 18

Credit quality step	**1**	**2**	**3**	**4 (only for credit assessments other than short-term credit assessments)**	**All other credit quality steps**
Securitisation positions	20%	50%	100%	350%	1,250%
Re-securitisation positions	40%	100%	225%	650%	1,250%

When calculating the risk-weighted exposure amount of an unrated securitisation position, the bank shall apply a risk weight of 1,250%.

By way of derogation from paragraph 2 of this Section, the bank may use the risk weights set out in Sections 220 to 223 of this Decision for unrated positions, subject to fulfilment of the requirements laid down in these Sections.

Originator and sponsor bank

220. By way of derogation from Section 219 of this Decision, an originator or sponsor bank may limit the risk-weighted exposure amounts calculated in respect of its securitisation positions to the risk-weighted exposure amounts which would be calculated for the underlying exposures had they not been securitised, subject to the application of a 150% risk weight to all exposures currently in default and exposures associated with high risk in accordance with Section 56 of this Decision.

Treatment of unrated positions

221. For the purpose of calculating the risk-weighted exposure amount of an unrated securitisation position, a bank may apply the weighted-average risk weight that would be applied to the securitised exposures under the Standardised Approach to credit risk by a bank holding the exposures, multiplied by the concentration ratio and provided that the bank shall know the composition of the pool of securitised exposures at all times.

The concentration ratio shall be equal to the sum of the nominal amounts of all the tranches divided by the sum of the nominal amounts of the tranches junior to or pari passu with the tranche in which the position is held including that tranche itself.

The resulting risk weight in paragraph 1 of this Section shall not be higher than 1,250% or lower than any risk weight applicable to a rated more senior tranche. Where the bank is unable to determine the risk weights that would be applied to the securitised exposures under the Standardised Approach to credit risk, it shall apply a risk weight of 1,250% to the position.

Treatment of securitisation positions in a second loss tranche or better in an ABCP programme

222. Subject to the fulfilment of the requirements set out in Section 223 of this Decision relating to the application of a more favourable treatment for liquidity facilities, a bank may apply to securitisation positions meeting the conditions laid down in paragraph 2 of this Section, a risk weight that is the greater of:

– 100% or
– the highest of the risk weights that would be applied to any of the securitised exposures by a bank holding the exposures under the Standardised Approach.

The bank may apply the weight set out in paragraph 1 of this Section if the following conditions are met:

– the securitisation position shall be in a tranche which is in a second loss position or better in the securitisation and the first loss tranche shall provide meaningful credit enhancement to the second loss tranche,
– the quality of the securitisation position shall be equivalent to credit quality step 3 under the Standardised Approach or better,
– the securitisation position shall be held by a bank which does not hold a position in the first loss tranche.

Treatment of unrated liquidity facilities

223. In order to determine the exposure value of unrated securitisation positions in the form of liquidity facilities, banks may apply a conversion factor of 50% to the nominal amount of a liquidity facility only when the following conditions are met:

1) the liquidity facility documentation shall clearly define the circumstances under which the facility may be drawn, or used;
2) it shall not be possible for the facility to be used so as to provide credit support by covering losses already incurred at the time of draw (e.g. so as to provide liquidity in respect of exposures in default at the time of draw or so as to acquire assets at more than fair value);
3) the facility shall only be used to provide funding of temporary differences between cash inflows and outflows, and shall not be used to provide permanent or regular funding for the securitisation;
4) repayment of draws on the facility shall not be subordinated to the claims of investors (other than to claims arising in respect of interest rate or currency financial derivatives, fees or other such payments), nor be subject to write-off or deferral;
5) it shall not be possible for the liquidity facility to be drawn after all applicable credit enhancements from which the liquidity facility would benefit are exhausted;
6) the contract relating to the liquidity facility shall include a provision that:
– results in an automatic reduction in the amount that can be drawn by the amount of exposures that are in default, or
– where the pool of securitised exposures consists of rated instruments, terminates the facility if the average quality of the pool falls below credit quality step 3.

The risk weight to be applied to securitisation positions in the form of unrated liquidity facilities referred to in paragraph 1 of this Section shall be

the highest risk weight that would be applied by a bank holding the exposures under the Standardised Approach.

To determine the exposure value of liquidity facilities, a bank may apply a conversion factor of 0% to the nominal amount of a liquidity facility, if in addition to the conditions set out in paragraph 1 of this Section, the following conditions are satisfied:

– the facility is unconditionally cancellable by the bank, and
– the repayments of draws on the facility are senior to any other claims on the cash flows arising from the securitised exposures.

Additional capital requirements for securitisations of revolving exposures with early amortisation provisions

224. Where there is a securitisation of revolving exposures subject to an early amortisation provision set out in a securitisation agreement, the originator bank shall, in addition to the risk-weighted exposure amounts of securitisation positions, calculate an additional risk-weighted exposure amount in accordance with Sections 225 to 232 of this Decision in respect of the possible increase in the levels of credit risk to which it is exposed following the operation of the early amortisation provision.

225. The bank shall calculate a risk-weighted exposure amount in respect of the sum of the exposure values of the originator's interest and the investors' interest.

Where the securitised exposures comprise revolving and non-revolving exposures, an originator bank shall apply the provisions of Sections 226 to 230 of this Decision to that portion of the underlying pool containing revolving exposures.

The exposure value of the originator's interest shall be the exposure value of that contractual part of a pool of drawn amounts sold into a securitisation, the proportion of which in relation to the amount of the total pool that has been securitised determines the proportion of the cash flows generated by principal and interest collections and other associated amounts which are not available to make payments to investors. The originator's interest shall not be subordinate to the investors' interest. The exposure value of the investors' interest shall be the exposure value of the remaining part of the pool of drawn amounts, which does not include the originator's interest.

The risk-weighted exposure amount in respect of the exposure value of the originator's interest shall be calculated as that for a pro rata exposure to the securitised exposures as if they had not been securitised.

226. An originator bank shall not calculate an additional risk-weighted exposures amount, i.e. apply the provisions of Section 224 of this Decision, for the following types of securitisation:

– securitisations of revolving exposures whereby investors remain fully exposed to all future draws by borrowers so that the risk on the underlying exposures does not return to the originator bank even after an early amortisation event has occurred;
– securitisations where any early amortisation provision is solely triggered by events not related to the performance of the securitised assets or the originator bank, such as changes in tax or other regulations.

227. Where an originator bank calculates an additional capital requirement in accordance with Section 224 of this Decision, the total of the risk-weighted exposure amounts in respect of its positions in the investors' interest and the risk-weighted exposure amounts calculated under that Section shall be no greater than the greater of:

– the risk-weighted exposure amounts calculated in respect of its positions in the investors' interest, and
– the risk-weighted exposure amounts, in respect of its positions in the investor's interest, that would be calculated if the securitised exposures had not been securitised.

Net gains arising from the capitalisation of future income in respect of securitised assets which are excluded from the value of the bank's capital in accordance with Section 11 of this Decision shall not be taken into the calculation referred to in paragraph 1 of this Section.

228. The additional risk-weighted exposure amount to be calculated by the bank in accordance with Section 224 of this Decision shall be determined by multiplying:

– the exposure value of the investors' interest,
– the appropriate conversion factor as indicated in Sections 230 to 232 of this Decision, and
– the weighted average risk weight that would apply to the securitised exposures if the exposures had not been securitised.

229. An early amortisation provision shall be considered to be controlled where the following conditions are met:

1) the originator institution has an appropriate capital and liquidity plan in place to ensure that it has sufficient capital and liquidity available in the event of an early amortisation;

2) throughout the duration of the securitisation, there is pro-rata sharing between the originator's interest and the investor's interest of payments of interest and principal, expenses, losses and recoveries based on the balance of receivables outstanding at one or more reference dates during each month;

3) the period following the operation of the early amortisation provision is considered long enough and/or sufficient for 90% of total debt (originator's and investors' interest) outstanding at the beginning of the early amortisation period to have been repaid or recognised as in default;

4) the speed of repayment is no more rapid than would be achieved by straight-line amortisation of principal over the period set out in paragraph 1, item 3) of this Section.

230. In the case of securitisations of retail exposures which are unconditionally cancellable by the bank without prior notice, and which are subject to an early amortisation provision where the early amortisation is triggered by the excess spread level falling below a specified level, banks shall compare the three month average excess spread level with the excess spread levels at which excess spread is required to be trapped.

For the purposes of this Section and Section 231 of this Decision, excess spread means the difference between all income and expenses arising from securitised exposures.

Where the securitisation does not require excess spread to be trapped, the trapping point is deemed to be 4.5 percentage points greater than the excess spread level at which an early amortisation is triggered.

The conversion factor to be applied shall be determined by the level of the actual three-month average excess spread in accordance with the table below:

Table 19

Three-month average excess spread	**Conversion factors**	
	Securitisations subject to a controlled early amortisation provision	**Securitisations subject to a non-controlled early amortisation provision**
Above level A	0%	0%
Level A	1%	5%

Level B	2%	15%
Level C	10%	50%
Level D	20%	100%
Level E	40%	100%

The three-month average excess spread shall be determined as follows:

– Level A refers to levels of excess spread less than 133.33% of the trapping level but not less than 100% of that trapping level;
– Level B refers to levels of excess spread less than 100% of the trapping level but not less than 75% of that trapping level;
– Level C refers to levels of excess spread less than 75% of the trapping level but not less than 50% of that trapping level;
– Level D refers to levels of excess spread less than 50% of the trapping level but not less than 25% of that trapping level; and
– Level E refers to levels of excess spread less than 25% of the trapping level.

231. In the case of securitisations of retail exposures which are unconditionally cancellable by the bank without prior notice and subject to an early amortisation provision triggered by another value in respect of something other than the three-month average excess spread, banks may, subject to the consent of the National Bank of Serbia, apply an alternative method for determining the conversion factors which approximates closely to that prescribed in Section 230 of this Decision, and shall meet the following conditions:

– that method is more appropriate because the bank can establish a value equivalent, in relation to the triggering of early amortisation, to the trapping level of excess spread;
– that method enables the bank to determine increased exposure to the credit risk following the operation of the early amortisation provision that is as conservative as that calculated in accordance with Section 230 of this Decision.

232. All other securitisations of revolving exposures (e.g. exposures to natural persons that are not unconditionally cancellable, exposures to corporates, etc.) shall be subject to the following conversion factor:

1) 90%, if the agreement contains a controlled early amortisation provision;

2) 100%, if the agreement contains a non-controlled early amortisation provision.

Recognition of credit risk mitigation techniques for securitisation positions

233. Where credit protection is obtained on a securitisation position, a bank may amend the calculation of risk-weighted exposure amounts in accordance with Part 3 of this Chapter.

Reduction in risk-weighted exposure amounts

234. Where a securitisation position is assigned a 1,250% risk weight, banks may, as an alternative to including the position in their calculation of risk-weighted exposure amounts, deduct from Common Equity Tier 1 capital the exposure value of the position in accordance with Section 13, paragraph 1, item 11), indent two of this Decision. The bank may reduce the exposure value of the position by the effects of credit protection in accordance with Section 233 of this Decision.

Where a bank makes use of the deductions treatment in accordance with Section 13, paragraph 1, item 11), indent two of this Decision, it may subtract 12.5 times the amount deducted from the amount specified in Section 220 of this Decision as the risk-weighted exposure amount which would currently be calculated for the securitised exposures had they not been securitised.

b) Calculation of risk-weighted exposure amounts under the IRB Approach

Hierarchy of methods

235. When calculating the risk-weighted exposure amounts, banks shall use the methods in accordance with the following hierarchy:

1) for a rated position or a position in respect of which an inferred rating may be used, the Ratings Based Method set out in Section 237 of this Decision shall be used;

2) for an unrated position, the bank may, subject to prior consent of the National Bank of Serbia, use the Supervisory Formula Method set out in Section 238 of this Decision, where it can produce estimates of PD and, where applicable, exposure value and LGD as inputs into the supervisory formula in accordance with the requirements for the estimation of those parameters under the IRB Approach in accordance with Part 2 of this Chapter;

3) by way of derogation from item 2) of this paragraph and only for unrated positions in ABCP programmes (i.e. credit facilities or credit enhancements), the bank may, subject to prior consent of the National Bank of Serbia, use the Internal Assessment Approach as set out in paragraph 4 of this Section;

4) in all other cases, a risk weight of 1,250% shall be assigned to securitisation positions which are unrated;

5) by way of derogation from item 4) of this paragraph, a bank may calculate the risk weight for an unrated position in an ABCP programme in accordance with Sections 221 or 222 of this Decision, if the unrated position is not in commercial paper and falls within the scope of the application of an Internal Assessment Approach for which the bank submitted to the National Bank of Serbia an application for prior consent referred to in this Section. The aggregated exposure values treated by this exception shall not be material, i.e. it shall be less than 10% of the aggregate exposure values treated by the bank under the Internal Assessment Approach. The bank shall stop making use of this exception if it did not obtain prior consent of the National Bank of Serbia to use the Internal Assessment Approach.

For the purposes of using inferred ratings, a bank shall attribute to an unrated securitisation position an inferred credit assessment equivalent to the credit assessment of a securitised position which is the most senior position (hereinafter: reference position) which is in all respects subordinate to the securitisation position to which the inferred rating is attributed, subject to the fulfilment of all of the following conditions:

1) the reference positions shall be subordinate in all respects to the unrated securitisation position;

2) the maturity of the reference positions shall be equal to or longer than that of the unrated position to which the inferred rating is attributed;

3) on an ongoing basis, any inferred rating shall be updated to reflect any changes in the credit assessment of the reference positions.

The National Bank of Serbia shall grant prior consent to banks to use the Internal Assessment Approach as set out in paragraph 4 of this Section where the following conditions are met:

1) positions in the commercial paper issued from the ABCP programme shall be rated positions;

2) the internal assessment of the credit quality of the position shall reflect the publicly available methodology of one or more assessment institutions, for the rating of securities backed by the exposures of the type securitised;

3) the methodologies referred to in item 2) of this paragraph shall include the methodologies of assessment institutions which have provided a credit assessment for the commercial paper issued from the ABCP programme, where quantitative elements (such as stress factors), used in assessing the credit quality of the positions, shall be at least as conservative as those used in the relevant assessment methodology of an eligible assessment institution;

4) in developing its internal assessment methodology the bank shall take into consideration relevant publicly available ratings methodologies of the assessment institutions that rate the commercial papers of the ABCP programme. This consideration shall be documented by the bank and reviewed regularly, as outlined in item 7) of this paragraph;

5) the bank's internal assessment methodology shall include rating grades. There shall be an explicitly documented correspondence between such rating grades and the credit assessments of eligible assessment institutions;

6) the internal assessment methodology shall be used in the bank's risk management processes, including its decision making, management information and capital allocation processes;

7) the independent auditor, assessment institution or the bank's risk review or risk management organisational unit shall perform regular reviews of the internal assessment process and the quality of the internal assessments of the credit quality of the bank's positions in an ABCP programme. If the bank's internal audit or risk management organisational unit perform the review of the process, this organisational unit shall be independent of the organisational unit in charge of the ABCP programme, as well as of the customer relationship;

8) on an ongoing basis, the bank shall track the performance of its internal ratings to evaluate the quality of its internal assessment methodology and to make improvements to that methodology when the credit quality of the positions diverges substantially from that indicated by the internal ratings;

9) standards shall be in place relating to asset purchase for the ABCP programme in the form of credit and investment guidelines, in accordance with which, when deciding on an asset purchase, the ABCP programme administrator shall consider: the type of asset being purchased, the type and value of the exposures arising from the provisions on liquidity facilities and credit enhancements, the loss distribution, and the legal and economic isolation of the transferred assets from the legal person selling the assets. A credit analysis of the asset seller's risk profile shall be performed and shall include: analysis of past and expected financial performance, current market position, expected competitiveness, maximum level of leverage, cash flow, interest coverage and seller's credit rating. In addition, a review of the seller's underwriting standards, servicing capabilities, and collection processes shall be performed;

10) the standards referred to in item 9) of this paragraph shall define minimum asset eligibility criteria that, in particular:

– prohibit the purchase of assets that are significantly past due or defaulted,

– limit excess concentration to a single person, group of related persons or geographic area,

– limit the tenor of the assets to be purchased;

11) internal acts for the ABCP programme shall be in place and relate to the collection of receivables, taking account the operational capability and credit quality of the servicer, as well as adequate methods for mitigating risk relating to the repayment capacity of the seller and the servicer (e.g. by defining a provision that explicitly precludes the commingling of funds of persons participating in the programme depending on changes to the credit quality of the seller and the servicer);

12) the aggregated estimate of loss on an asset pool that the ABCP programme is considering purchasing shall take into account all sources of potential risk, such as default and dilution risk. If the seller-provided credit enhancement is sized based only on default risk-related losses and the dilution risk is material, the bank shall establish a separate reserve for dilution risk. In sizing the required credit enhancement level, the program shall review several years of historical information, including losses, delinquencies, dilutions, and the turnover rate of the receivables;

13) the ABCP programme shall incorporate provisions relating to the purchase of exposures in order to mitigate potential credit deterioration of the pool of underlying exposures, such as early amortisation provisions.

Under the Internal Assessment Approach, the unrated position shall be assigned by the bank to one of the internal rating grades laid down in paragraph 3, item 5) of this Section and shall be attributed a derived rating based on the credit assessment of an eligible assessment institution corresponding to the rating grade to which the position is assigned. Where the derived rating is, at the first assessment of credit quality of the securitised exposure, at the level of credit quality step 3 or better, the bank shall use this rating for the purposes of calculating risk-weighted exposure amounts by applying the risk weights set out in Table 20 in Section 237 of this Decision.

A bank which has obtained the consent of the National Bank of Serbia to use the Internal Assessment Approach shall not revert to the use of other methods unless it has demonstrated to the National Bank of Serbia that it has good cause to do so and it has received prior consent of the National Bank of Serbia to use another method.

Maximum capital requirements

236. An originator bank, a sponsor bank, or another bank which can calculate K_{IRB} may limit the risk-weighted exposure amounts calculated in respect of its positions in a securitisation to that which would produce a capital requirement equal to the sum of:

1) 8% of the risk-weighted exposure amounts which would be produced if the securitised exposures had not been securitised and were on the balance sheet of the bank and

2) the expected loss amounts of those securitised exposures.

Ratings Based Method

237. Where a bank uses the Ratings Based Method for the calculation of risk-weighted exposure amounts, the risk-weighted exposure amount of a rated securitisation or re-securitisation position shall be obtained by applying the relevant risk weight to the exposure value and multiplying the result by 1.06.

The relevant risk weight shall be the risk weight as laid down in the table below (Table 20), while the credit quality step of the position shall be determined in accordance with Sections 212 to 214 of this Decision.

Table 20

Credit quality step		**Securitisation positions**			**Re-securitisation positions**	
Credit assessments other than short-term	**Short-term credit assessments**	**A**	**B**	**C**	**D**	**E**
1	1	7%	12%	20%	20%	30%
2		8%	15%	25%	25%	40%
3		10%	18%	35%	35%	50%
4	2	12%	20%	35%	40%	65%
5		20%	35%	35%	60%	100%
6		35%	50%	50%	100%	150%
7	3	60%	75%	75%	150%	225%
8		100%	100%	100%	200%	350%
9		250%	250%	250%	300%	500%
10		425%	425%	425%	500%	650%
11		650%	650%	650%	750%	850%
below 11 and unrated		1,250%	1,250%	1,250%	1,250%	1,250%

The bank shall apply the risk weights in column C of Table 20 where the securitisation position is not a re-securitisation position and where the effective number of exposures securitised is less than six.

For the remainder of the securitisation positions that are not re-securitisation positions, the risk weights in column B of Table 20 shall be applied unless the position is in the most senior tranche of a securitisation, in which case the risk weight in column A of Table 20 shall be applied.

For re-securitisation positions the risk weights in column E shall be applied unless the re-securitisation position is in the most senior tranche of the re-securitisation and none of the underlying exposures are themselves re-securitisation exposures, in which case the risks weights in column D of Table 20 shall be applied.

When determining whether a tranche is the most senior, the bank is not required to take into consideration amounts due under interest rate or currency financial derivatives, fees due, and other similar payments.

In calculating the effective number of securitised exposures, multiple exposures to one obligor shall be treated as one exposure. The effective number of exposures is calculated as:

$$\mathbf{N} = \frac{(\sum_{i} \mathbf{EAD}_i)^2}{\sum_{i} \mathbf{EAD}_i^2}$$

where EAD_i is the sum of values of all exposures to the ith obligor.

In the case of re-securitisations, the bank shall look at the number of securitisation exposures in the pool of re-securitised assets and not the number of underlying exposures in the original pools from which the underlying securitisation exposures stem.

If the portfolio share associated with the largest exposure (C_1) is available, the bank may compute the effective number of exposures as:

$$\mathbf{N} = \frac{\mathbf{1}}{\mathbf{C_1}}$$

Banks may apply credit risk mitigation techniques to securitisation positions in accordance with Section 240 of this Decision, subject to the fulfilment of the conditions in Section 217 of this Decision.

Supervisory Formula Method

238. If a bank calculates the risk-weighted exposure amounts under the Supervisory Formula Method, the risk weight for a securitisation position shall

be calculated as follows subject to a floor of 20% for re-securitisation positions, or 7% for all other securitisation positions:

$$12.5\% \cdot \frac{S(L+T) - S(L)}{T}$$

where for $x \leq K_{IRBR}$:

$$S(x) = x$$

and for $x > K_{IRBR}$:

$$S(x) = K_{IRBR} + K(x) - K(K_{IRBR}) + \left(\frac{d \cdot K_{IRBR}}{\omega} \right) \times \left(1 - e^{\frac{\omega(K_{IRBR} - X)}{K_{IRBR}}} \right)$$

where:

$$h = \left(1 - \frac{K_{IRBR}}{ELGD} \right)^N$$

$$c = \frac{K_{IRBR}}{1-h}$$

$$v = \frac{(ELGD - K_{IRBR}) \cdot K_{IRBR} + 0.25 \cdot (1 - ELGD) \cdot K_{IRBR}}{N}$$

$$f = \left(\frac{v + K_{IRBR}^2}{1-h} - c^2 \right) + \frac{(1 - K_{IRBR}) \cdot K_{IRBR} - v}{(1-h) \cdot \tau}$$

$$g = \frac{(1-c) \cdot c}{f} - 1$$

$$a = g \cdot c$$

$$b = g \cdot (1-c)$$

$$d = 1 - (1-h) \cdot (1 - Beta[K_{IRBR}; a, b])$$

$$K(x) = (1-h) \cdot \{(1 - Beta[x; a, b]) \cdot x + Beta[x; a+1, b] \cdot c\}$$

$\tau = 1{,}000$ and

$\omega = 20.$

For the purposes of this Section:

1) Beta[x;a,b] is the cumulative beta distribution with parameters *a* and *b* evaluated at *x*;

2) T is the thickness of the tranche in which the position is held, measured as the ratio of the nominal amount of the tranche to the sum of the nominal amounts of all exposures that have been securitised. For the purpose of calculating T for financial derivatives listed in Annex 1 to this Decision, the sum of the current replacement cost and the potential exposures calculated in accordance with Part 5 of this Chapter shall be used in place of the nominal amount;

3) K_{IRBR} is the ratio of K_{IRB} to the sum of the values of all exposures that have been securitised and is expressed in decimal form;

4) L is the credit enhancement level, measured as the ratio of the nominal amount of all tranches subordinate to the tranche in which the position is held to the sum of the nominal amounts of all exposures that have been securitised. Capitalised future income shall not be included in the measured L. Amounts due by counterparties in respect of financial derivatives listed in Annex 1 to this Decision that represent tranches more junior than the tranche in question may be measured at their current replacement cost (without the potential future exposures);

5) N is the effective number of exposures calculated in accordance with Section 237 of this Decision;

6) ELGD is the exposure-weighted average LGD, calculated as follows:

$$ELGD = \frac{\sum_i LGD_i \cdot EAD_i}{\sum_i EAD_i}$$

where LGD_i is the average LGD associated with all exposures to the ith obligor, where LGD is determined in accordance with Part 2 of this Chapter. In the case of re-securitisation, an LGD of 100% shall be applied to the securitised positions. When default and dilution risk for purchased receivables are treated in an aggregate manner within a securitisation, the bank shall calculate the LGD_i as a weighted average of the LGD for default risk and the 75% LGD for dilution risk. The weights for these weighted averages shall be the stand-alone shares of capital requirements for credit risk and dilution risk, respectively.

Where the amount of the largest securitised exposure in the portfolio (C_1) is no more than 3% of the sum of amounts of all securitised exposures, the bank may, for the purposes of the Supervisory Formula Method, apply an LGD of 50% and N equal to:

$$N = \left[C_1 \cdot C_m + \left(\frac{C_m - C_1}{m-1} \right) \cdot \max\{1 - m \cdot C_1, 0\} \right]^{-1} \text{ or } N = \frac{1}{C_1}.$$

where C_m is the ratio of the sum of the amounts of the largest *m* exposures to the sum of amounts of all securitised exposures. The bank may define which exposures it considers the largest *m* exposures.

For securitisations in which securitised exposures are retail exposures, the National Bank of Serbia may grant consent to the bank to use a simplified Supervisory Formula Method where h=0 and v=0, provided that the number of exposures is not low and that the exposures are not highly concentrated.

The bank may apply credit risk mitigation techniques to securitisation positions in accordance with Section 240, paragraphs 2 to 5 of this Decision, subject to the conditions in Section 217 of this Decision.

Liquidity facilities

239. For the purposes of determining the exposure value of an unrated securitisation position in the form of liquidity facilities, a conversion factor of 0% may be applied to the nominal amount of a liquidity facility that meets the conditions set out in Section 223, paragraph 3 of this Decision.

When it is not possible for the bank to calculate the risk-weighted exposure amounts for the securitised exposures as if they had not been securitised, the bank may, on an exceptional basis and subject to the consent of the National bank of Serbia, temporarily apply the method set out in paragraph 3 of this Section for the calculation of risk-weighted exposure amounts for an unrated securitisation position in the form of liquidity facility that meets the conditions in Section 223, paragraphs 1 and 2 of this Decision. For the purposes of this Section, the calculation of risk-weighted exposure amounts shall, in general, be deemed not to be possible if an inferred rating, the Internal Assessment Approach and the Supervisory Formula Approach are not at the bank's disposal. In addition to an application for consent, the bank shall submit to the National Bank of Serbia the documentation explaining its reasons for the exception and the intended time period of use.

The highest risk weight that would be applied under the Standardised Approach to any of the underlying exposures, had they not been securitised, may be applied to the securitisation position represented by a liquidity facility. To determine the exposure value of the position a conversion factor of 100% shall be applied to the nominal amount of the liquidity facility.

Recognition of credit risk mitigation techniques for securitisation positions subject to the IRB Approach

240. Where risk-weighted exposure amounts are calculated using the Ratings Based Method, the exposure value or the risk weight for a securitisation position in respect of which credit protection has been obtained may be amended in accordance with the provisions of Part 3 of this Chapter as they apply for the calculation of risk-weighted exposure amounts under the Standardised Approach.

In the case of full credit protection, where risk-weighted exposure amounts of securitisation positions are calculated using the Supervisory Formula Method, the following requirements shall apply:

1) the bank shall determine the effective risk weight of the position by dividing the risk-weighted exposure amount of the position by the exposure value of the position and multiplying the result by 100;

2) in the case of funded credit protection, the risk-weighted exposure amount of the securitisation position shall be calculated by multiplying the effective risk weight by the funded protection-adjusted exposure amount of the position (E*), as calculated under Part 3 of this Chapter for the calculation of risk-weighted exposure amounts under the Standardised Approach, taking the amount of the securitisation position to be E;

3) in the case of unfunded credit protection, the risk-weighted exposure amount of the securitisation position shall be calculated as a sum of the following:

– the risk weight of the protection provider multiplied by G_A (nominal amount of unfunded credit protection adjusted for any currency mismatch and maturity mismatch in accordance with Part 3 of this Chapter), and

– the amount of the securitisation position minus G_A multiplied by the effective risk weight.

Where risk-weighted exposure amounts are calculated using the Supervisory Formula Method and if the credit risk mitigation covers the first loss or losses on a proportional basis of the securitisation position, the bank may calculate the amount of risk-weighted exposures by applying the calculation set out in paragraph 2 of this Section. In all other cases, the bank shall treat the securitisation position as two or more positions with the uncovered portion being considered the position with the lower credit quality. For the purposes of calculating the risk-weighted exposure amount for this position, Section 238 of this Decision shall apply, subject to the following changes:

– T is equal to e* in the case of funded credit protection; or it is equal to (T-g) in the case of unfunded credit protection,

– e* denotes the ratio of E* to the total notional amount of the underlying pool,

– E* is the adjusted exposure amount of the securitisation position calculated in accordance with the provisions of Part 3 of this Chapter, as they apply for the calculation of the risk-weighted exposure amounts under the Standardised Approach, taking the amount of the securitisation position to be E;

– g is the ratio of the nominal amount of credit protection (adjusted for any currency or maturity mismatch in accordance with provisions of Part 3 of this Chapter) to the sum of the exposure amounts of the securitised exposures.

In the case of unfunded credit protection, the risk weight of the protection provider shall be applied to that portion of the position not falling within the adjusted value of T.

Where, in the case of unfunded credit protection, the National Bank of Serbia has granted consent to the bank to calculate risk-weighted exposure amounts for comparable direct exposures to the protection provider in accordance with Part 2 of this Chapter, the risk weight g of exposures to the protection provider in accordance with Section 191 of this Decision shall be determined as specified in that Part.

Additional capital requirements for securitisations of revolving exposures with early amortisation provisions

241. In addition to the risk-weighted exposure amounts calculated in respect of its securitisation positions, the originator bank shall also calculate the additional risk-weighted exposure amount in accordance with Sections 224 to 232 of this Decision when it sells revolving exposures into a securitisation that contains an early amortisation provision.

For the purposes of this Section, the exposure value of the originator’s interest shall be the sum of the following items:

– the exposure value of that notional part of a pool of drawn amounts sold into a securitisation, the proportion of which in relation to the amount of the total pool sold into the structure determines the proportion of the cash flows generated by principal and interest collections and other associated amounts which are not available to make payments to investors, and

– the exposure value of that part of the pool of undrawn amounts of the credit lines, the drawn amounts of which have been sold into

the securitisation, the proportion of which to the total amount of such undrawn amounts is the same as the proportion of the exposure value of the notional part of the pool of drawn amounts being securitised, defined in indent one of this paragraph, to the exposure value of the pool of drawn amounts sold into the securitisation.

The originator's interest shall not be subordinate to the investors' interest.

The exposure value of the investors' interest shall be the exposure value of the notional part of the pool of drawn amounts not falling within paragraph 2, indent one of this Section, plus the exposure value of that part of the pool of undrawn amounts of credit lines, the drawn amounts of which have been sold into the securitisation, not falling within paragraph 2, indent two of this Section.

The risk-weighted exposure amount in respect of the exposure value of the originator's interest in accordance with paragraph 2, indent one of this Section shall be calculated as that for a pro rata exposure to the securitised drawn amounts of exposures as if they had not been securitised, and a pro rata exposure to the undrawn amounts of the credit lines, the drawn amounts of which have been sold into the securitisation.

Reduction in risk-weighted exposure amounts

242. The risk-weighted exposure amount of a securitisation position to which a 1,250% risk weight is assigned may be reduced by 12.5 times the amount of any specific credit risk adjustments treated in accordance with Section 36 of this Decision made by the bank in respect of the securitised exposures. This amount of specific credit risk adjustments shall not be used for the purposes of the calculation under Section 134 of this Decision.

The risk-weighted exposure amount of a securitisation position may be reduced by 12.5 times the amount of any specific credit risk adjustments treated in accordance with Section 36 of this Decision made by the bank in respect of the position.

In respect of a securitisation position in respect of which a 1,250% risk weight applies, the bank may, as an alternative to including the position in its calculation of risk-weighted exposure amounts, deduct from its Common Equity Tier 1 capital the exposure value of the position in accordance with Section 13 of this Decision, subject to the following:

1) the exposure value of the position may be derived from the risk-weighted exposure amounts taking into account any reductions made in accordance with paragraphs 1 and 2 of this Section;

2) the calculation of the exposure value may reflect eligible funded protection in a manner consistent with the methodology prescribed in Sections 217 and 240 of this Decision, or

3) where the Supervisory Formula Method is used to calculate risk-weighted exposure amounts and $L \leq K_{IRBR}$ and $[L+T] > K_{IRBR}$, the position may be treated as two positions with $L = K_{IRBR}$ for the more senior of the positions.

Where the bank makes use of the option in paragraph 3 of this Section, it may subtract 12.5 times the amount deducted in accordance with that paragraph from the amount specified in Section 236 as the amount to which the risk-weighted exposure amount in respect of its positions in a securitisation may be limited.

5. Originator bank's calculation of risk-weighted exposure amounts securitised in a synthetic securitisation

243. In calculating risk-weighted exposure amounts for the securitised exposures, where the conditions in Section 202 of this Decision are met, the originator bank shall, subject to the provisions of Section 244 of this Decision, use the relevant calculation methodologies set out in this Part and not those set out in Part 1 of this Chapter. For banks calculating risk-weighted exposure amounts and expected loss amounts under the IRB Approach in accordance with Part 2 of this Chapter, the expected loss amount in respect of such exposures shall be zero.

The requirements set out in paragraph 1 of this Section shall apply to the entire pool of exposures included in the securitisation. Subject to the provisions of Section 244 of this Decision, the originator bank shall calculate risk-weighted exposure amounts in respect of all tranches in the securitisation in accordance with the provisions of Subpart 4 of this Part, including those for which the bank recognises credit risk mitigation in accordance with Section 217 of this Decision, in which case the risk weight to be applied to that position may be amended in accordance with Part 3 of this Chapter, subject to the requirements laid down in that Part.

244. For the purposes of calculating risk-weighted exposure amounts in accordance with Section 243 of this Decision, any maturity mismatch between the credit protection which constitutes a tranche and by which the transfer of risk is achieved on the one hand, and the securitised exposures on the other hand shall be taken into consideration as follows:

1) the maturity of the securitised exposures shall be taken to be the longest maturity of any of those exposures subject to a maximum of five years. The maturity of the credit protection shall be determined in accordance with Part 3 of this Chapter;

2) an originator bank shall ignore any maturity mismatch in calculating risk-weighted exposure amounts for tranches appearing pursuant to this Part with a risk weight of 1,250%. For all other tranches, the maturity mismatch treatment set out in Part 3 of this Chapter shall be applied in accordance with the following formula:

$$RW^* = [RW_{SP} \cdot (t-t^*)/(T-t^*)] + [RW_{Ass} \cdot (T-t)/(T-t^*)]$$

where:

RW* = risk-weighted exposure amounts for the purposes of calculating capital requirements for credit risk and dilution risk referred to in Section 3, paragraph 2, indent one of this Decision;
RW_{SP} = risk-weighted exposure amounts calculated under Section 243 of this Decision, if there was no maturity mismatch;
RW_{Ass} = risk-weighted exposure amounts for exposures if they had not been securitised;
T = maturity of the underlying exposures, expressed in years;
t = maturity of credit protection, expressed in years;
t* = 0.25.

Part 5

Counterparty credit risk

245. A bank shall determine the exposure value of financial derivatives listed in Annex 1 of this Decision in accordance with the provisions of this Part.

A bank may determine the exposure value of repurchase transactions, securities or commodities lending or borrowing transactions, margin lending transactions and long settlement transactions in accordance with this Part instead of making use of Part 3 of this Chapter.

1. Methods for calculating the exposure value

246. The bank shall determine the exposure value of financial derivatives specified in Annex 1 of this Decision on the basis of one of the methods specified in Subparts 2 to 5 of this Part, in the manner prescribed in this Subpart.

By way of derogation from paragraph 1 of this Section, a bank shall not use the Original Exposure Method referred to in Subpart 3 of this Part if:

1) the bank does not meet the conditions set out in Section 310, paragraphs 4 to 7 of this Decision;

2) the bank calculates the exposure value of financial derivatives specified in Annex 1, Section 3 of this Decision.

The combined use of methods referred to in Subparts 2 to 5 of this Part shall be allowed only at the banking group level for the same type of transactions; it shall not be allowed at the level of individual banks, except for transactions referred to in Section 261, paragraph 1 of this Decision, where the bank may use a combination of the Mark-to-Market Method and the Standardised Method.

The Standardised Method referred to in Subpart 4 of this Part shall only be applied when determining the exposure values of OTC derivatives and long settlement transactions.

Having obtained prior consent of the National Bank of Serbia, the bank shall determine the exposure values of financial derivatives specified in Annex 1, repurchase transactions, securities or commodities lending or borrowing transactions, margin lending transactions and long settlement transactions by applying the Internal Model Method in accordance with Subpart 5 of this Part.

Banks shall determine the exposure value for exposures arising from long settlement transactions by any of the methods set out in Subparts 2 to 5 of this Part, regardless of which method the bank has chosen for treating OTC derivatives and repurchase transactions, securities or commodities lending or borrowing transactions, and margin lending transactions. In calculating the risk-weighted exposures for long settlement transactions, regardless of their significance, a bank that uses the IRB Approach may assign the risk weights specified under the provisions of Part 1 of this Chapter provided that it applies such risk weights on a permanent basis and to all exposures under these transactions.

247. When a bank purchases protection through a credit derivative against a non-trading book exposure or against a counterparty risk exposure, it shall calculate the amount of risk-weighted exposures for hedged exposures in accordance with Sections 189 to 192 of this Decision, or where permission has been granted to apply the IRB Approach in accordance with Section 98 or Section 118, paragraph 3 of this Decision. The exposure value for counterparty risk for those credit derivatives shall be zero, unless the bank

applies the approach set out in Section 286, paragraph 2, item 8), indent two of this Decision.

Notwithstanding paragraph 1 of this Section, a bank may choose consistently to include for the purposes of calculating capital requirements for counterparty risk all credit derivatives not included in the trading book and purchased as protection against a non-trading book exposure or against a counterparty risk exposure where the derivatives meet the conditions under Part 3 of this Chapter.

Where non-trading book CDS derivatives sold by the bank meet the conditions under Part 3 of this Chapter and are subject to capital requirement for credit risk of the underlying assets for the full notional amount, their exposure value for the purposes of counterparty credit risk in the non-trading book shall be zero.

248. The exposure value for a given counterparty shall be equal to the sum of the exposure values calculated for each netting set with that counterparty.

For a given counterparty, the exposure value for a given netting set of OTC derivatives listed in Annex 1 of this Decision calculated in accordance with this Part shall be the greater of zero and the difference between the sum of exposure values across all netting sets with the counterparty and the sum of CVA for that counterparty being recognised by the institution as an incurred write-down. The CVA shall be calculated without taking into account any offsetting debit value adjustment attributed to the own credit risk of the bank that has already been excluded from capital under Section 12, paragraph 1, item 3) of this Decision.

249. For the methods set out in Subparts 2 or 3 of this Part, the bank shall adopt a consistent methodology for determining the notional amount for different product types, and shall ensure that the notional amount to be taken into account provides an appropriate measure of the risk inherent in the contract. Where the contract provides for a multiplication of cash flows, the notional amount shall be adjusted by the bank to take into account the effects of the multiplication on the risk structure of that contract.

In the case of transactions where specific wrong way risk has been identified, banks shall apply the provisions of Section 278 of this Decision.

2. Mark-to-Market Method

250. If applying the Mark-to-Market Method, the bank shall determine the exposure amount as the sum of the following:

1) current exposure under a contract whose value is positive, representing its current market value (for contracts whose value is negative, the current exposure is equal to zero), and

2) potential future credit exposure (PFE) for the period remaining until the contractual obligations' due date, calculated by multiplying the notional principal amount of each individual contract as at the date of calculation by the appropriate conversion factor specified in the table below (Table 21):

Table 21

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
≤ 1 year	0%	1%	6%	7%	10%
>1 ≤ 5 years	0.5%	5%	8%	7%	12%
> 5 years	1.5%	7.5%	10%	8%	15%

For contracts which do not fall within any of the five categories indicated in Table 21, a bank shall use conversion factors applied to the category of contracts concerning commodities other than precious metals in accordance with their residual maturity.

Where the contract provides for a multiplication of cash flows, a bank shall multiply the conversion factors from Table 21 by the number of remaining payments, in accordance with the provisions of the contract.

For contracts that are structured to settle outstanding exposure following specified future payment dates and where the terms are reset on that dates (the market value of the contract is zero on these dates), the residual maturity shall be the time until the next payment date and/or the reset date. For interest rate contracts with residual maturity period exceeding one year, a bank shall use a conversion factor not lower than 0.5% regardless of the residual maturity until the next reset date.

For contracts relating to commodities other than precious metals listed in Annex 1, Section 3 of this Decision, a bank may apply conversion factors from the table below (Table 22), provided that the bank follows the Extended Maturity Ladder Approach set out in Section 381 of this Decision.

Table 22

Residual maturity	Contracts concerning precious metals, other than gold	Contracts concerning basic metals	Contracts concerning agricultural products	Contracts concerning other commodities, including energy products
≤ 1 year	2%	2.5%	3%	4%
>1 ≤ 5 years	5%	4%	5%	6%
> 5 years	7.5%	8%	9%	10%

3. Original Exposure Method

251. When applying the Original Exposure Method, the exposure value of each individual contract shall be the notional principal amount of that contract multiplied by the appropriate percentage given in the table below (Table 23):

Table 23

Original maturity	Interest rate contracts	Contracts concerning foreign exchange rates and gold
≤ 1 year	0.5%	2.0%
>1 ≤ 2 years	1.0%	5.0%
Additional allowance for each additional year	1.0%	3.0%

To calculate the exposure value of contracts concerning foreign exchange rates, a bank may choose to use either the residual or the original maturity.

4. Standardised Method

a) Calculation of the exposure value

252. When applying the Standardised Method, banks shall calculate the exposure value separately for each netting set, as follows:

$$\text{exposure value} = \beta \times \max\left(\text{CMV} - \text{CMC}; \sum_J \left|\sum_i \text{RPT}_{ij} - \sum_l \text{RPC}_{lj}\right| \times \text{CCRM}_j\right),$$

where:

CMV = current market value of the portfolio of transactions within the netting set with a counterparty (gross of collateral), where:

$$CMV = \sum_i CMV_i ,$$

where:

CMV_i = the current market value of transaction *i*,
CMC = the current market value of the collateral assigned to the netting set:

$$CMC = \sum_l CMC_l ,$$

where:

CMC_l = the current market value of collateral *l*;
i = index designating transaction *i*;
l = index designating collateral *l*;
j = index designating hedging set category (the hedging sets for this purpose correspond to risk factors for which risk positions of opposite sign can be offset to yield a net risk position on which the exposure measure is then based);
RPT_{ij} = risk position from transaction *i* with respect to hedging set *j*;
RPC_{lj} = risk position from collateral *l* with respect to hedging set *j*;
$CCRM_j$ = counterparty credit risk multiplier set out in Table 25 of this Decision with respect to hedging set *j*;
β = 1.4.

For the purposes of calculating the exposure value under the Standardised Method, eligible collateral received from a counterparty shall have a positive sign, and collateral posted to a counterparty shall have a negative sign. Only collateral that meets the conditions under Sections 139 to 142 and Section 286, paragraph 2, item 4) of this Decision shall be deemed eligible. A bank may disregard the interest rate risk from payment legs with a remaining maturity of less than one year. A bank may treat transactions that consist of two payment legs that are denominated in the same currency as a single aggregate transaction. The treatment for payment legs applies to the aggregate transaction.

b) Transactions with a linear risk profile

253. Banks shall map transactions with a linear risk profile to risk positions as follows:

1) transactions with a linear risk profile with equities (including equity indices), gold, other precious metals or other commodities as the

underlying instrument shall be mapped to a risk position in the respective equity (or equity index) or commodity and an interest rate risk position for the payment leg;

2) transactions with a linear risk profile with a debt instrument as the underlying instrument shall be mapped to an interest rate risk position for the debt instrument and another interest rate risk position for the payment leg;

3) transactions with a linear risk profile that stipulate the exchange of payment against payment (including foreign exchange forwards) shall be mapped to an interest rate risk position for each of the payment legs;

4) where, under a transaction mentioned in items 1), 2) or 3) of this paragraph a payment leg is denominated in foreign currency, that payment leg shall also be mapped to a risk position in that currency.

The size of a risk position shall be the effective notional value (market price multiplied by the number of underlying instruments, or by quantity if the underlying instrument is a commodity) of the underlying financial instruments or commodities converted to the bank's domestic currency. The size of this risk position shall exclude debt instruments.

For debt instruments and for payment legs, the size of the risk position shall be the effective notional value of the outstanding gross payments multiplied by the modified duration of the debt instrument or, as the case may be, of the payment leg, in dinars.

The size of a risk position from a CDS derivative shall be the notional value of the reference debt instrument multiplied by the remaining maturity of the CDS derivative.

c) Transactions with a non-linear risk profile

254. Banks shall determine the size of the risk positions from an OTC derivative with a non-linear risk profile, including options and swaptions, in accordance with the following:

1) if the underlying is not a debt instrument or a payment leg – the size of a risk position from an OTC derivative shall be equal to the delta equivalent effective notional value of the financial instrument that underlies the transaction;

2) if the underlying is a debt instrument or a payment leg – it shall be equal to the delta equivalent effective notional value of the financial instrument or payment leg multiplied by the modified duration of the debt instrument or payment leg, as the case may be.

d) Treatment of collateral

255. For the determination of risk positions, the collateral received from a counterparty shall be treated as an obligation to the counterparty under a derivative contract (short position), while the collateral posted with the counterparty shall be treated as a claim on the counterparty (long position) under that contract.

e) Calculation of risk positions

256. A bank shall determine the size and sign of a risk position for all financial instruments as follows:

1) for all financial instruments, other than debt instruments, as the effective notional value or as the delta equivalent notional value:

$$\text{size of the risk position} = \mathbf{p}_{\mathbf{ref}} \frac{\partial \mathbf{V}}{\partial \mathbf{p}},$$

where:

p_{ref} = price of the underlying instrument, expressed in the reference currency;
V = value of the financial instrument (in the case of an option, the value is the option price, and in the case of a transaction with a linear risk profile, it is the value of the underlying instrument);
p = price of the underlying instrument, expressed in the same currency as V;

2) for debt instruments and the payment legs of all transactions – as the effective notional value multiplied by the modified duration, or as the delta equivalent in notional value multiplied by the modified duration:

$$\frac{\partial \mathbf{V}}{\partial \mathbf{r}},$$

where:

V = value of the financial instrument (in the case of an option, this is the option price, and in the case of a transaction with a linear risk profile, this is the value of the underlying instrument or a payment leg);
r = interest rate level.

If V is denominated in a currency other than the reference currency, the derivative shall be converted into the reference currency by multiplication with the relevant exchange rate.

257. Banks shall group the risk positions into hedging sets and calculate the net risk position for each hedging set. The net risk position shall

be equal to the absolute value of the sum of all individual risk positions (arising from transactions and collateral in each individual netting set) in each hedging set and shall be calculated as follows:

$$\text{net risk position} = \left| \sum_i \mathbf{RPT}_{ij} - \sum_l \mathbf{RPC}_{lj} \right| .$$

f) Interest rate risk positions

258. For interest rate risk positions from money deposits received from the counterparty as collateral, from payment legs, or from underlying debt instruments, to which in each case a risk weight of 1.60% or less applies in accordance with Table 30 of Section 335 of this Decision, banks shall assign those positions to one of the hedging sets for each currency set out in the table below (Table 24):

Table 24

Reference interest rate/ Residual maturity	**Government referenced interest rates**	**Non-government referenced interest rates**
≤ 1 year	Hedging set (≤1,G)	Hedging set (≤1,N)
>1 ≤ 5 years	Hedging set (>1≤5,G)	Hedging set (>1≤5,N)
> 5 years	Hedging set (>5, G)	Hedging set (>5, N)

For interest rate risk positions from underlying debt instruments or payment legs for which the interest rate is linked to a reference interest rate that represents a general market interest level, the remaining maturity shall be the length of the time interval up to the next re-adjustment of the interest rate. In all other cases, it shall be the remaining life of the underlying debt instrument or, in the case of a payment leg, the remaining life of the transaction.

g) Hedging sets

259. Banks shall establish hedging sets for each issuer of a reference debt instrument that underlies a CDS derivative. N-th to default basket CDS derivative shall be treated as follows:

– the size of a risk position in a reference debt instrument in a basket underlying an n-th to default CDS derivative shall be the effective notional value of the reference debt instrument, multiplied by the modified duration of the n-th to default CDS derivative with respect to a change in the credit spread of the reference debt instrument;

– there shall be one hedging set for each reference debt instrument in a basket underlying a given “n-th to default” CDS derivative.

Risk positions from different n-th to default CDS derivatives shall not be included in the same hedging set;

– the counterparty credit risk multiplier (CCRM) shall be 0.3% for reference debt instruments that have a credit assessment from an eligible credit assessment institution equivalent to credit quality step 1 to 3, or 0.6% for other debt instruments.

For each issuer, the bank shall establish hedging sets for interest rate risk positions from money deposits that are posted with a counterparty as collateral when that counterparty does not have debt obligations of low specific position risk outstanding, or from underlying debt instruments, to which according to Table 30 of Section 335 of this Decision a risk weight of more than 1.60% applies.

When a payment leg emulates such a debt instrument, there shall also be one hedging set for each issuer of the reference debt instrument.

A bank may assign risk positions that arise from debt instruments referred to in paragraphs 1, 2 and 3 of this Section to the same hedging set.

Underlying financial instruments other than debt instruments shall be assigned to the same hedging sets only if they are identical or similar instruments. In all other cases they shall be assigned to separate hedging sets. Banks shall determine whether underlying instruments are similar in accordance with the following principles:

1) for equities – the underlying is similar if it is issued by the same issuer (an equity index shall be treated as a separate issuer);

2) for precious metals – the underlying is similar if it is the same metal (a precious metal index shall be treated as a separate precious metal);

3) for electric power – the underlying is similar if the delivery rights and obligations refer to the same peak or off-peak load time interval within any 24-hour interval;

4) for commodities – the underlying is similar if it is the same commodity (a commodity index shall be treated as a separate commodity).

260. The counterparty credit risk multipliers (CCRM) for the different hedging set categories are set out in Table 25:

Table 25

	Hedging set categories	**CCRM**
1	**Interest rates**	**0.2%**

2	**Interest rates for risk positions from a reference debt instrument that underlies a CDS derivative and to which a risk weight of 1.60% or less applies under Table 30**	**0.3%**
3	**Interest rates for risk positions from a debt instrument or a reference debt instrument to which a risk weight of more than 1.60% applies under Table 30**	**0.6%**
4	**Exchange rates**	**2.5%**
5	**Electric power**	**4%**
6	**Gold**	**5%**
7	**Equity**	**7%**
8	**Precious metals (other than gold)**	**8.5%**
9	**Other commodities (excluding precious metals and electric power)**	**10%**
10	**Underlying instruments of OTC derivatives that are not in any of the above categories**	**10%**

Underlying instruments of OTC derivatives, as referred to in category 10 of Table 25, shall be assigned to separate individual hedging sets for each category of underlying instrument.

261. For transactions with a non-linear risk profile or for payment legs and transactions with debt instruments as underlying for which the bank cannot determine the delta or the modified duration, as the case may be, with an instrument model for which the consent referred to in Section 310 of this Decision has been granted – the National Bank of Serbia shall either determine the size of the risk positions and the applicable CCRMs, or require the bank to use the Mark-to-Market Method. Netting shall not be recognised (the exposure value shall be determined as if there were a netting set that comprises just an individual transaction).

A bank shall have internal procedures to verify that, prior to including a transaction in a hedging set, the transaction is covered by a legally enforceable netting contract that meets the requirements set out in Subpart 6 of this Part.

A bank that makes use of collateral to mitigate its counterparty credit risk shall have internal procedures to verify that, prior to recognising the effect of collateral in its calculations, the collateral meets the legal certainty standards set out in Part 3 of this Chapter.

5. Internal Model Method

a) Consent of the National Bank of Serbia to use the Internal Model Method

262. Provided it has obtained the National Bank of Serbia's prior consent, a bank may use the Internal Model Method to calculate the exposure value (EPE model) for financial derivatives listed in Annex 1 of this Decision,

for repurchase transactions, securities or commodities lending or borrowing transactions, margin lending transactions and long settlement transactions.

A bank may choose not to apply this method to exposures that are immaterial in size and risk. In such case, a bank shall apply one of the methods set out in this Part to these exposures, where the relevant requirements for each approach are met.

Provided it has obtained the consent referred to in paragraph 1 of this Section, a bank may implement the Internal Model Method sequentially across different transaction types. During this period of sequential implementation, for the purposes of calculating exposure values, banks may use the Mark-to-Market Method or the Standardised Method for certain transaction types in accordance with the consent.

For all OTC derivative transactions and for long settlement transactions for which a bank has not obtained the consent referred to in paragraph 1 of this Section to use the Internal Model Method, a bank shall use the Mark-to-Market Method or the Standardised Method. These methods may be used in combination within a banking group, and not for individual banks, except for transactions set out in Section 261, paragraph 1 of this Decision.

263. The National Bank of Serbia may give its consent to the bank to apply the Internal Model Method when calculating exposure values referred to in Section 262, paragraph 1 of this Decision provided that the conditions in this Subpart are met.

For the purposes of obtaining the consent referred to in paragraph 1 of this Section, a bank shall submit the following to the National Bank of Serbia:

– list of the types of transactions for which the bank intends to use the Internal Model Method, the plan for the sequential implementation of the model (if the bank plans to implement the model sequentially) and general information on the model;
– documentation verifying compliance with the requirements specified in this Subpart.

When giving the consent referred to in paragraph 1 of this Section, the National Bank of Serbia shall set a timeframe for the implementation or sequential implementation of the Internal Model Method. If a bank cannot implement the model within the defined timeframes, it shall submit an application for their extension without delay.

If a bank has obtained the consent referred to in paragraph 1 of this Section, it may submit an application to obtain the consent to revert to the Mark-to-Market Method or the Standardised Method provided that the application is accompanied by appropriate documentation demonstrating good cause for the use of these methods. After obtaining the consent to revert to another method, the previously obtained consent to apply the Internal Model Method shall cease to be valid.

If, after obtaining the consent indicated in paragraph 1 of this Section, a bank ceases to comply with the requirements laid down in that paragraph, it shall without delay inform the National Bank of Serbia thereof, and present to it a plan for a timely return to compliance, or evidence that the effect of non-compliance is immaterial. If a bank has submitted a plan referred to in this paragraph, it shall notify the National Bank of Serbia without delay that it has complied with the requirements set out in that paragraph within the deadline indicated in the plan.

264. The National Bank of Serbia may withdraw the consent specified in Section 263, paragraph 1 of this Decision if it determines that the bank has ceased to comply with the conditions set out in this Subpart and the effects of the non-compliance are material, if it failed to submit the plan specified in paragraph 5 of that Section, if the submitted plan is inadequate or if the bank's actions were not in compliance with the plan.

The bank whose consent specified in paragraph 1 of this Section has been withdrawn by the National Bank of Serbia, shall calculate the exposure to counterparty risk by using the Mark-to-Market Method or the Standardised Method.

b) Requirements for the calculation of exposure value

265. A bank shall calculate the exposure value for each individual netting set. The Internal Model Method used by the bank to calculate the exposure value shall:

1) specify the forecasting distribution for changes in the market value of the netting set attributable to joint changes in relevant market variables (such as interest rates, foreign exchange rate);
2) calculate the exposure value for the netting set at each of the future dates on the basis of the joint changes in the market variables.

In order for the model to capture the effects of margining, the internal model of the collateral value shall meet the quantitative and qualitative requirements and data requirements specified in this Subpart. The bank may include in its forecasting distributions for changes in the market

value of the netting set only eligible financial collateral as referred to in Sections 139 to 142, and Section 286, paragraph 2, items 3) and 4) of this Decision.

266. The capital requirement for counterparty credit risk with respect to exposures to which a bank applies the Internal Model Method, shall be the higher of the following:

1) the capital requirement for those exposures calculated on the basis of Effective EPE using current market data or

2) the capital requirement for those exposures calculated on the basis of Effective EPE using a single consistent stress calibration for all counterparty credit risk exposures to which they apply the Internal Model Method.

267. Except for counterparties identified as having Specific Wrong-Way risk that fall within the scope of Section 278, paragraphs 3 and 4 of this Decision, banks shall calculate the exposure value as the product of α times Effective EPE, as follows:

$$\text{exposure value} = \alpha \times \text{Effective EPE},$$

where $\alpha = 1.4$.

In the process of prudential supervision of bank operations, the National Bank of Serbia may require α higher than 1.4.

Effective EPE shall be calculated by estimating expected exposure (EEt) as the average exposure at future date t, where the average is taken across possible future values of relevant market risk factors. The internal model shall estimate EE at a series of future dates (t_1, t_2, t_3, etc.).

Effective EE at a specific date shall be calculated as:

$$\text{Effective EE}t_k = \max(\text{Effective EE}t_{k-1}; \text{EE}t_k),$$

where the current date is denoted t_0, and Effective $\text{EE}t_0$ equals current exposure.

Effective EPE is the average Effective EE during the first year of future exposure. If all contracts in the netting set mature within less than a year, EPE shall be the average of all EE until all contracts in the netting set mature. Effective EPE shall be calculated as a weighted average of Effective EE:

$$Effective\ EPE = \sum_{k=1}^{\min(1\ year;\ maturity)} Effective\ EEt_k \times \Delta t_k ,$$

where the weight $\Delta t_k = t_k - t_{k-1}$ is the period between future dates on which the exposure is calculated, and allows for the case when future exposure is calculated at dates that are not equally spaced over time.

A bank shall calculate EE or peak exposure measures on the basis of a distribution of exposures that accounts for the possible non-normality of the distribution of exposures.

A bank may use a more conservative way to calculate the exposure value so that the result is higher than the exposure value calculated in accordance with paragraph 1 of this Section.

268. Notwithstanding Section 267, paragraph 1 of this Decision, the National Bank of Serbia may permit banks to use their own estimates of α, where α shall be no lower than 1.2, and shall equal the ratio of internal capital from a full simulation of counterparty credit risk exposure across counterparties and internal capital based on EPE. For calculating internal capital based on EPE, EPE shall be used as if it were a fixed outstanding amount.

A bank shall ensure that elements of α are calculated in a manner consistent with the modelling methodology, parameter specifications and portfolio composition.

The approach used by a bank to estimate α shall be based on the bank's internal capital approach, be well documented and be subject to independent validation. A bank shall review these estimates on at least a quarterly basis, and more frequently when the composition of the portfolio varies over time.

A bank shall estimate the risk of the models it is exposed to, especially in respect of significant variations of estimates that arise from the potential for misspecification in the model used for the simulation of exposure to counterparty credit risk.

When submitting an application for the consent, a bank shall submit the documentation demonstrating that its internal capital from a simulation referred to in paragraph 4 of this Section captures the material sources of dependency of distribution of market values of transactions or of portfolio transactions across counterparties. Internal estimates of α shall take account of the granularity of portfolios.

The National Bank of Serbia may revoke the consent referred to in paragraph 1 of this Section if a bank ceases to comply with the conditions set out in paragraphs 1 to 4 of this Section.

269. Correlations and volatilities of market risk factors used in the joint modelling of market and credit factors shall be conditioned on the credit risk factor to reflect potential increases in volatility or correlation in an economic downturn.

c) Requirements for calculating exposure value for netting sets subject to a margin agreement

270. If the netting set is subject to a margin agreement and daily mark-to-market valuation, a bank may calculate Effective EPE as follows:

1) Effective EPE, calculated without taking into account any collateral held or posted by way of margin, independent of the daily valuation and margining process or current exposure;

2) add-on, calculated as the potential increase in exposure over the margin period of risk, plus the larger of:

– the current exposure, including collateral currently held or posted, other than collateral called or in dispute,

– the largest net exposure, including collateral under the margin agreement, that would not trigger a collateral call. This amount shall reflect all applicable thresholds, minimum transfer amounts between counterparties and initial margins under the margin agreement;

3) EE measure calculated by applying the internal EPE model which the bank uses directly in the equation in Section 267, paragraph 4 of this Decision, subject to the consent of the National Bank of Serbia.

The National Bank of Serbia shall grant the consent referred to in paragraph 1, item 3) of this Section if the model captures the effects of margining when estimating EE.

For the purposes of paragraph 1, item 2) of this Section, banks shall calculate the add-on as the expected positive change of the mark-to-market value of transactions on a daily basis during the margin period of risk. Changes in the value of collateral shall be reflected using the standard volatility adjustments in accordance with Part 3, Subpart 3 of this Chapter, or the own estimates on volatility adjustments of the Financial Collateral Comprehensive Method, but no collateral payments shall be assumed during the margin period of risk. The margin period of risk is subject to the minimum periods set out in Section 271 of this Decision.

271. For transactions subject to daily re-margining and mark-to-market valuation, the margin period of risk shall not be less than:

– five working days for netting sets consisting only of repurchase transactions, securities or commodities lending or borrowing transactions and margin lending transactions,
– ten working days for all other netting sets.

Indents one and two of paragraph 1 of this Section shall be subject to the following exceptions:

– for all netting sets where the number of trades exceeds 5,000 at any point during a quarter, the margin period of risk for the following quarter shall not be less than 20 working days. This exception shall not apply to banks' trade exposures or
– for netting sets containing one or more trades involving illiquid collateral or an OTC derivative that cannot be easily replaced (which implies stressed market conditions, characterised by the absence of active markets where a counterparty would, within two days or fewer, obtain multiple price quotations that would not move or represent a price reflecting a market discount in the case of collateral, or premium in the case of an OTC derivative), the margin period of risk shall not be less than 20 working days.

For the purposes of paragraph 2 of this Section, a bank shall consider whether trades or securities it holds as collateral are concentrated in a particular counterparty and, if that counterparty exited the market precipitously, whether the bank would be able to replace those trades or securities.

If a bank has been involved in more than two margin call disputes on a particular netting set over the immediately preceding two quarters that have lasted longer than the applicable margin period of risk under paragraphs 1 and 2 of this Section, the bank shall use a margin period of risk that is at least double the period for the subsequent two quarters.

For re-margining with a periodicity of N days, the margin period of risk shall be at least equal to the period specified in paragraphs 1 and 2 of this Section (F) plus N-1 day, that is:

$$\text{margin period of risk} = F + N - 1$$

272. If the internal model includes the effect of margining on changes in the market value of the netting set, a bank shall model collateral, other than cash of the same currency as the exposure itself, jointly with the exposure in

its exposure value calculations for OTC derivatives and securities-financing transactions.

If a bank is not able to model collateral jointly with the exposure, it shall not recognise in its exposure value calculations for OTC derivatives and securities-financing transactions the effect of collateral (other than cash of the of the same currency as the exposure itself), unless in cases when, with the consent of the National Bank of Serbia, it uses either own volatility adjustments estimates or the standard supervisory volatility adjustments in accordance with Part 3 of this Chapter.

A bank shall ignore in its models the effect of a reduction of the exposure value due to any clause in a collateral agreement that requires receipt of collateral when a counterparty credit quality deteriorates.

d) Management of counterparty credit risk

273. A bank shall establish an appropriate management framework for counterparty credit risk, consisting of internal acts regulating counterparty credit risk management and procedures which ensure the appropriate implementation of these acts. Those acts shall be clear and reliable, implemented with integrity, and documented so as to cover the entire risk management process, including the explanation of the empirical techniques used to measure the exposure to that risk.

In its internal acts regulating counterparty credit risk management, a bank shall take account of market, liquidity, and legal and operational risks that are associated with counterparty credit risk. The counterparty credit risk management framework shall ensure that the bank complies with the following principles:

1) it does not undertake business with a counterparty without assessing its creditworthiness;

2) it takes due account of settlement and pre-settlement credit risk;

3) it manages risks indicated in items 1) and 2) of this paragraph as comprehensibly as practicable at the counterparty level by aggregating counterparty credit risk exposures with other credit exposures, and at the bank-wide level.

A bank shall ensure that its counterparty credit risk management framework accounts for the liquidity risks of the following in particular:

1) potential incoming margin calls in the context of exchanges of variation margin or other margin types (such as initial margin) under adverse market shocks;

2) potential incoming calls for the return of excess collateral posted by counterparties;

3) calls resulting from a potential downgrade of the bank's external credit quality assessment.

A bank shall ensure that the nature and horizon of collateral re-use is consistent with its liquidity needs and does not jeopardise its ability to post or return collateral in a timely manner.

A bank's management bodies shall, in accordance with their scope of work, be actively involved in and ensure that adequate resources are allocated to the management of counterparty credit risk. Members of the bank's executive board shall be aware of the limitations and assumptions of the internal model used and the impact those limitations and assumptions can have on the reliability of the output through a formal process. They shall also be aware of the impact of the market environment and operational issues and of how these are reflected in the model.

The daily reports prepared on a bank's exposures to counterparty credit risk in accordance with Section 274, paragraph 3, indent two of this Decision shall be reviewed by members of the bank's management body with authority to enforce both reductions of the bank's potential exposures under transactions agreed on by individual credit managers or traders, and limits and reductions in the bank's overall counterparty credit risk exposure.

A bank's counterparty credit risk management framework shall be used in conjunction with internal credit and trading limits. These limits shall be related to the bank's risk measurement model in a manner that is consistent over time and that is well understood by credit managers, traders and senior management. The bank shall have a formal process to report breaches of risk limits to the management.

A bank's measurement of counterparty credit risk shall include measuring daily and intra-daily use of credit lines. The bank shall measure current exposure gross and net of collateral. At portfolio and counterparty level, the bank shall also calculate and monitor peak exposure or potential future exposure (PFE) at the confidence interval chosen by the bank. The bank shall take account of large or concentrated positions, including by groups of related counterparties, by industry, by market and other relevant criteria.

A bank shall establish and maintain a routine and rigorous program of stress testing. The results of that testing shall be reviewed regularly by the executive board and shall be reflected in the counterparty credit risk policies and limits. Where stress tests reveal particular vulnerability to a given set of circumstances, the bank shall take prompt steps to manage those risks appropriately and prevent the occurrence of more vulnerability.

e) Requirements relating to organisation structures for counterparty credit risk management

274. A bank shall establish an organisational unit charged with counterparty credit risk control and an organisational unit charged with collateral management, in accordance with this Section.

The operation of the organisational unit charged with counterparty credit risk control shall be closely integrated into the day-to-day credit risk management process of the bank, while its output shall be an integral part of the process of planning, monitoring and controlling the bank's credit and overall risk profile. This organisational unit shall be independent from organisational unit(s) in the bank in charge of assuming counterparty credit risk, and shall report directly to the bank's executive board. The bank shall ensure that the organisational unit is adequately staffed.

The risk control unit shall be responsible for the implementation of the following activities:

– design and implementation of its counterparty credit risk management system, including the initial and on-going validation of the model,

– production and analysis of daily reports on the output of the bank's risk measurement model. That analysis shall include an evaluation of the relationship between measures of exposure values and trading limits,

– control of input data integrity, and production and analysis of reports on the output of the bank's risk measurement model, including an evaluation of the relationship between measures of risk exposure and trading limits;

The collateral management unit shall carry out the following activities:

1) calculating and making margin calls, managing margin call disputes and reporting initial margins and variation margins accurately on a daily basis;

2) controlling the integrity of the data used to make margin calls, and ensuring that it is consistent and reconciled with all relevant sources of data within the bank;

3) tracking the extent of re-use of collateral and any amendments of the rights of the bank to or in connection with the collateral that it posts;

4) reporting to the management the types of collateral assets that are reused, and the terms of such reuse including instrument, credit quality and maturity;

5) tracking concentration to individual types of collateral assets accepted by the institution;

6) reporting collateral management information on a regular basis, but at least quarterly, to the executive board, including information on the type of collateral received, date, size and maturity of the collateral, as well as the causes of margin call disputes, and shall also reflect trends in these figures.

A bank's executive board shall allocate sufficient resources to the collateral management unit to ensure that its systems achieve an appropriate level of operation performance, notably as measured by the timeliness and accuracy of margin calls and the timeliness of the response of the bank to margin calls by its counterparties. A bank's executive board shall ensure that the unit is adequately staffed to process calls and disputes in a timely manner even under severe market crisis, and to enable the bank to limit its number of large disputes caused by trade volumes.

f) Requirements for the review of counterparty credit risk management system

275. A bank shall conduct a review of its counterparty credit risk management system through its internal auditing process, which shall include the activities of both the counterparty credit risk control and collateral management units. This review shall be conducted regularly, but at least once a year, and shall specifically address the following:

1) the adequacy of the documentation of the counterparty credit risk management system and process;

2) the organisation of the counterparty credit risk control unit required by Section 274, paragraph 2 of this Decision;

3) the organisation of the collateral management unit required by Section 274, paragraph 4 of this Decision;

4) the integration of counterparty credit risk measures into daily risk management;

5) the approval process for risk pricing models and valuation systems used by front and back-office personnel;

6) the validation of any significant change in the counterparty credit risk measurement process;

7) the scope of counterparty credit risk captured by the risk measurement model;

8) the integrity and reliability of the management information system;

9) the accuracy and completeness of counterparty credit risk data;

10) the accurate reflection of contractual and other legal terms in collateral and netting agreements into exposure value measurements;

11) the verification of the consistency, timeliness and reliability of data sources used to run internal models, including the independence of such data sources;

12) the accuracy and appropriateness of volatility and correlation assumptions;

13) the accuracy of valuation and risk transformation calculations;

14) the verification of the model's accuracy through frequent back-testing as set out in Section 280, paragraph 1, items 2), 3), 4) and 5) of this Decision;

15) the compliance of the counterparty credit risk control unit and collateral management unit with the relevant regulatory requirements.

g) Requirements for the use test

276. Banks shall ensure that the distribution of exposures generated by the model used to calculate Effective EPE is closely integrated into the day-to-day counterparty credit risk management process, and that the output of the internal model is of key importance in the process of credit approval, counterparty credit risk management, internal capital allocation and corporate governance.

The bank shall demonstrate that it has been using a model to calculate the distribution of exposures upon which the EPE calculation is based that meets the requirements for at least one year prior to obtaining the consent of the National Bank of Serbia to use the Internal Model Method.

The model used to generate a distribution of exposures to counterparty credit risk shall be part of the counterparty credit risk management framework. This framework shall include the measurement of usage of credit lines (aggregating counterparty credit risk exposures with other credit exposures) and internal capital allocation.

In addition to EPE, a bank shall measure and manage current exposures. Where appropriate, the bank shall measure current exposure

gross and net of collateral. The use test is satisfied if a bank uses other counterparty credit risk measures (such as peak exposure or potential exposure – PFE), based on the distribution of exposures generated by the same model to compute EPE.

A bank shall estimate EE daily, unless it has already submitted to the National Bank of Serbia a notification and documentation demonstrating that its exposures to counterparty credit risk warrant less frequent calculation. The bank shall estimate EE along a time profile of forecasting horizons that adequately reflects the time structure of future cash flows and maturity of transactions, and in a manner that is consistent with the materiality and composition of the exposures.

A bank shall measure, monitor and control exposures over the life of all contracts in the netting set (and not only to the one-year horizon) and shall have procedures in place to identify and control the risks for counterparties where the exposure rises beyond the one-year horizon. The forecast increase in exposure shall be an input into the bank's internal capital model.

h) Requirements for stress testing

277. A bank shall have a comprehensive stress testing programme for counterparty credit risk, including for use in internal assessment of capital requirements for counterparty credit risk. Stress testing shall include identifying possible events or future changes in economic conditions that could have unfavourable effects on a bank's credit exposures and assess the bank's ability to withstand such changes.

Results of stress testing shall be compared against risk limits and considered by the bank as part of the process of assessment and maintaining internal capital at the adequate level.

The programme shall comprehensively capture trades and aggregate exposures across all forms of counterparty credit risk at the level of specific counterparties in a sufficient time frame to conduct regular stress testing. The bank shall provide for at least monthly exposure stress testing of principal market risk factors, such as interest rates, FX, equities, credit spreads, and commodity prices for all counterparties of the bank, in order to identify, and enable the bank when necessary to reduce outsized concentrations in specific directional risks. Exposure stress testing (including single factor, multifactor and material non-directional risks) and joint stressing of exposure and creditworthiness shall be performed at the counterparty-specific, counterparty group and aggregate bank-wide counterparty credit risk levels.

A bank shall apply at least quarterly multifactor stress testing scenarios and assess material non-directional risks, including yield curve exposure and basis risk; these stress tests, shall at a minimum, address the following scenarios in which the following occurs:

– severe economic or market events have occurred,
– broad market liquidity has decreased significantly,
– a large financial intermediary is liquidating positions.

The assumptions applied to the underlying risk factors in stress testing shall be consistently conservative. When evaluating solvency under stress, the shocks of the underlying risk factors shall be sufficiently severe to capture historical extreme market environments and extreme but plausible stressed market conditions. The stress tests shall evaluate the impact of such shocks on capital, capital requirements and profit. For the purpose of day-to-day portfolio monitoring, hedging, and management of concentrations, the testing programme shall also consider scenarios of lesser severity and higher probability.

Stress testing shall include provision, where appropriate, for reverse stress tests to identify extreme, but plausible, scenarios that could result in significant adverse outcomes. Reverse stress testing shall account for the impact of material non-linearity in the portfolio.

The results of the stress testing under the programme shall be reported regularly, at least on a quarterly basis, to the executive board. The reports and analysis of the results shall cover the largest counterparty-level impacts across the portfolio, material concentrations within segments of the portfolio (within the same industry or region), and relevant portfolio and counterparty specific trends.

The executive board shall take a lead role in the integration of stress testing into the risk management framework and risk culture of the bank, and ensure that the results are meaningful and used to manage counterparty credit risk. The results of stress testing for significant exposures shall be assessed against guidelines that indicate the bank’s risk appetite, and are referred to the executive board for discussion and action when excessive or concentrated risks are identified.

i) Requirements for Wrong-Way risk

278. A bank shall give due consideration to exposures that give rise to a significant degree of General and Specific Wrong-Way risk.

In order to identify General Wrong-Way risk, a bank shall design stress testing and scenario analyses to stress risk factors that are adversely related to counterparty creditworthiness. Such testing shall address the possibility of severe shocks occurring when relationships between risk factors have changed. A bank shall monitor General Wrong-Way risk by product, by region, by industry, or by other categories that are relevant to the bank's operations.

A bank shall maintain procedures to identify, monitor and control Specific Wrong-Way risk for each legal person, beginning at the inception of a transaction and continuing through the life of the transaction.

Banks shall calculate the capital requirements for counterparty credit risk in relation to transactions where Specific Wrong-Way risk has been identified and where there exists a legal connection between the counterparty and the issuer of the underlying of the OTC derivative or of repurchase transactions, securities or commodities lending or borrowing transactions and margin lending transactions, in accordance with the following principles:

1) the instruments where Specific Wrong-Way risk exists shall not be included in the same netting set as other transactions with the counterparty, and shall each be treated as a separate netting set;

2) within any such separate netting set referred to in item 1) of this paragraph, for single-name CDS derivatives the exposure value equals the full expected loss in the value of the remaining fair value of the underlying instruments based on the assumption that the underlying issuer is in liquidation;

3) LGD for a bank using the IRB Approach in accordance with Part 2 of this Chapter shall be 100% for single-name CDS derivatives;

4) for a bank using the Standardised Approach in accordance with Part 1 of this Chapter, the applicable risk weight shall be that of an unsecured transaction;

5) for all other transactions referencing a single name in any such separate netting set, the calculation of the exposure value shall be consistent with the assumption of a jump-to-default of those underlying obligations where the issuer is legally connected with the counterparty. For transactions referencing a basket of names or index, the jump-to-default of the respective underlying obligations where the issuer is legally connected with the counterparty, shall be applied, if material;

6) to the extent that a bank uses existing capital requirements calculations for incremental default and migration risk that already contain an LGD assumption, the LGD in the formula used shall be 100%.

Banks shall provide the executive board and other relevant boards with regular reports on both General and Specific Wrong-Way risks and the steps being taken to manage those risks.

j) Requirements for the integrity of the modelling process

279. A bank shall ensure the integrity of the modelling process as set out in this Subpart, by adopting at least the following measures:

1) the model shall reflect transaction terms and specifications in a timely, complete and conservative fashion, whereby those terms shall include at least notional amounts, maturity, reference assets, margin arrangements and netting arrangements;
2) the terms of each individual transaction shall be maintained in a database that is subject to periodic audit;
3) a process for recognising netting arrangements that requires legal staff to verify that netting under those arrangements is legally enforceable;
4) the legal verification referred to in item 3) of this paragraph shall be entered into the database by an organisational unit that is independent from the counterparty credit risk control unit;
5) the transmission of transaction terms and specification data to the EPE model shall be subject to internal audit;
6) there shall be processes for formal reconciliation between the model and source data systems to verify on an ongoing basis that transaction terms and specifications are being reflected in EPE correctly or at least conservatively.

Current market data shall be used to determine current exposures by applying the internal model. A bank may calibrate its EPE model using either historical market data or market implied data to establish parameters of the underlying stochastic processes, such as drift, volatility and correlation. If a bank uses historical data to assess volatility and correlation, it shall use at least three years of such data. The data shall be updated at least quarterly, and more frequently if necessary to reflect market conditions.

To calculate the Effective EPE using a stress calibration, a bank shall use data, either historical or implied, for three years which include a period of stress to the credit default spreads of its counterparties, and shall meet the following requirements:

1) a bank shall send to the National Bank of Serbia, at least quarterly, the documentation evidencing that the stress period used for the calculation coincides with the period of increased spreads for CDS derivatives or other credit spreads (such as loan or corporate bond) for a representative

selection of its counterparties with traded credit spreads. In situations where the bank does not have adequate credit spread data for a counterparty, it shall map that counterparty to specific credit spread data based on region, internal rating and business types;

2) the EPE model for all counterparties shall use data, either historical or implied, that include the data from the stressed credit period and shall use such data in a manner consistent with the method used for the calibration of the EPE model to current data;

3) to evaluate the effectiveness of its stress calibration for Effective EPE, a bank shall create several benchmark portfolios that are vulnerable to the main risk factors to which the bank is exposed. The exposure to these benchmark portfolios shall be calculated using a stress methodology, based on current market values and model parameters calibrated to stressed market conditions, and the exposure generated during the stress period, by applying the method set out in this Subpart (end of stress period market value, volatilities, and correlations from the 3-year stress period). If the exposures to those benchmark portfolios deviate substantially from each other, the National Bank of Serbia shall require the bank to adjust the stress calibration.

A bank shall adopt and apply appropriate internal acts for validating the internal model. The internal model validation process shall specify the kind of testing needed to ensure model integrity and reliability, and identify conditions under which the assumptions underlying the model are inappropriate and may therefore result in an understatement of EPE. The validation process shall also include a review of the comprehensiveness of the model.

A bank shall monitor the relevant counterparty credit risks and have processes in place to adjust its own estimation of EPE when those risks become significant, and shall do the following:

– identify and manage its exposures to Specific and General Wrong-Way risks in accordance with Section 278 of this Decision;

– for exposures with a rising risk profile after one year, compare on a regular basis the estimate of EPE over one year with the same exposure measure estimate over the life of the exposure;

– for exposures with a residual maturity below one year, compare on a regular basis the current market value (current exposure) and the realised exposure profile, and store data that allow or would allow such a comparison.

A bank shall have internal procedures to verify that, prior to including a transaction in a netting set, the transaction is covered by a legally

enforceable netting contract that meets the requirements set out in Subpart 6 of this Part.

A bank that uses collateral to mitigate its counterparty credit risk shall have internal procedures to verify that, prior to recognising the effect of collateral in its calculations, the collateral meets the legal certainty standards set out in Part 3 of this Chapter.

k) Risk management system

280. A bank shall comply with the following requirements in respect of the counterparty credit risk management system:

1) it shall meet the qualitative requirements set out in Chapter VII, Part 6 of this Decision;

2) it shall conduct a regular programme of back-testing, comparing the risk measures generated by the model with realised risk measures, and hypothetical changes based on static positions with realised measures;

3) it shall carry out an initial validation and an ongoing periodic review of its EPE model and the risk measures generated by it. The validation and review shall be independent of the model development;

4) it shall ensure that the bank's management bodies are actively involved in the risk control process, including adequate allocation of resources to credit and counterparty credit risk control;

5) the internal risk measurement exposure model shall be included into day-to-day risk management process of the bank;

6) the risk measurement system shall be used in conjunction with internal trading and exposure limits. In this regard, exposure limits shall be related to the bank's risk measurement model in a manner that is consistent over time and that is well understood by traders, boards, organisational units, credit function management and the executive board;

7) a bank shall ensure that its risk management system is well documented. In particular, it shall maintain a documented set of internal policies, controls and procedures concerning the operation of the risk measurement system, and mechanisms to ensure that internal acts are complied with;

8) a review of the risk measurement system shall be carried out regularly by the bank's own internal auditing unit. This review shall include both the activities of the business trading units and of the independent risk control unit. A review of the overall risk management process shall take place at regular intervals, and no less than once a year, and shall specifically address, as a minimum, all items referred to in Section 275 of this Decision;

9) the ongoing validation of counterparty credit risk models, including back-testing, shall be reviewed periodically by a level of

management with sufficient authority to decide the action that will be taken to address weaknesses in the models.

The National Bank of Serbia shall take into account the extent to which a bank meets the requirements of paragraph 1 of this Section, as one of the criteria when setting the level of α, as set out in Section 267, paragraph 1 of this Decision. Only those banks that comply fully with those requirements shall be eligible for application of α equalling 1.4.

A bank shall document the process of EPE model validation and the calculation of the risk measures generated by the models to a level of detail that would enable a third party to recreate, respectively, the analysis and the risk measures. That documentation shall set out the frequency with which back testing and validation will be conducted, how the validation is conducted with respect to data flows and portfolios and the analyses that are used.

A bank shall define criteria with which to assess its EPE model, and the models that input into the calculation of exposure and adopt and implement an internal act that describes the process by which unacceptable performance will be identified and remedied.

A bank shall clearly define how representative counterparty portfolios are constructed for the purpose of validating a model.

The validation of the EPE model and the obtained risk measures that produce forecast distributions shall consider more than a single statistic of the forecast distribution.

l) Model validation

281. As part of the validation of the EPE model and its risk measures, a bank shall ensure that the following requirements are met:

1) a bank shall carry out back-testing using historical data on movements in market risk factors prior to the permission from Section 263 of this Decision. That back-testing shall consider a number of distinct prediction time horizons out to at least one year, over a range of various initialisation dates and covering a wide range of market conditions;

2) a bank using the approach set out in Section 270, paragraph 1, item 2) of this Decision shall regularly validate its model to test whether realised current exposures are consistent with the prediction over all margin periods within one year. If some of the trades in the netting set have a maturity of less than one year, and the netting set has higher risk factor sensitivities without these trades, the validation shall take this into account;

3) it shall back-test the performance of its EPE model and the model's relevant risk measures, as well as the market risk factor predictions. For collateralised trades, the prediction time horizons considered shall include those reflecting typical margin periods of risk applied in collateralised or margined trading;

4) if the model validation indicates that Effective EPE is underestimated, a bank shall take the action necessary to address the inaccuracy of the model;

5) a bank shall test the pricing models used to calculate counterparty credit risk exposure for a given scenario of future shocks to market risk factors as part of the ongoing model validation process. Pricing models for options shall account for the nonlinearity of option value with respect to market risk factors;

6) the counterparty credit risk exposure model shall capture the transaction-specific information necessary to be able to aggregate exposures at the level of the netting set. A bank shall verify that transactions are assigned to the appropriate netting set within the model;

7) the EPE model shall include transaction-specific information to capture the effects of margining. It shall take into account both the current amount of margin and margin that would be passed between counterparties in the future (including the lowest amount to be passed), the nature of margin agreements (unilateral or bilateral), the frequency of margin calls, the margin period of risk, the minimum threshold of un-margined exposure the bank is willing to accept, and the minimum transfer amount. Such a model shall either estimate the mark-to-market change in the value of collateral posted or apply the rules set out in Part 3 of this Chapter;

8) the model validation process shall include static, historical back-testing on a large number of (actual or hypothetical) representative counterparty portfolios at regular intervals. Those representative portfolios shall be chosen on the basis of the bank's sensitivity to the material risk factors and combinations of risk factors to which the bank is exposed;

9) a bank shall conduct back-testing that is designed to test the key assumptions of the EPE model and the relevant risk measures, including the modelled relationship between tenors of the same risk factor, and the modelled relationships between risk factors;

10) the performance of the EPE model and its risk measures shall be subject to appropriate back-testing practice, which shall be capable of identifying poor performance in an EPE model's risk measures;

11) a bank shall validate its EPE models and all risk measures out to time horizons commensurate with the maturity of trades for which exposure is calculated using the Internal Model Method under this Subpart;

12) a bank shall regularly test the pricing models used to calculate counterparty exposure against appropriate independent benchmarks as part of the ongoing model validation process;

13) the ongoing validation of the EPE model and the relevant risk measures shall include an assessment of the adequacy of the recent performance;

14) the frequency with which the EPE model is updated shall be assessed as part of the validation process;

15) the initial and ongoing validation of the EPE models shall assess whether or not the counterparty level and netting set exposure calculations of exposure are appropriate.

A measure that is more conservative than the metric used to calculate regulatory exposure value for every counterparty may be used in place of α multiplied by Effective EPE with prior consent of the National Bank of Serbia as stipulated in Section 263, paragraph 1 of this Decision. A bank shall assess the degree of relative conservativism immediately after obtaining the consent, and at the regular supervisory reviews of the EPE models by the National Bank of Serbia. A bank shall validate the conservativism regularly. The ongoing assessment of model performance shall cover all counterparties for which the models are used.

If back-testing indicates that a model is not sufficiently accurate, the National Bank of Serbia may revoke its consent referred to in Section 263, paragraph 1 of this Decision, or impose appropriate measures to ensure that the model is improved promptly.

6. Contractual netting

a) Recognition of contractual netting as risk-reducing

282. Banks may treat as risk reducing the following types of contractual netting agreements whereby claims and obligations with the counterparty are offset against each other (hereinafter: netting agreement):

– contracts for novation between a bank and its counterparty under which mutual claims and obligations are automatically amalgamated so as to create a single new contract that replaces all former contracts and all obligations between parties pursuant to those contracts;

– other bilateral agreements between a bank and its counterparty;

– contractual cross-product netting agreements for banks that have received the approval from Section 263, paragraph 1 of this Decision for transactions falling under the scope of the internal model. Netting across transactions entered into by different legal entities of a group shall not be recognised for the purposes of calculating the capital requirements.

b) Recognition of contractual netting agreements

283. A bank shall use netting agreements for the purposes of mitigating counterparty credit risk and calculating capital requirements for that risk provided that the following conditions are fulfilled:

1) the bank has concluded a contractual netting agreement with its counterparty which creates a single legal obligation, covering all included transactions, such that, in the event of default by the counterparty the bank would be entitled to receive (positive mark-to-market value) or obliged to pay (negative mark-to-market value) only the net sum of the positive and negative mark-to-market values of included individual transactions;

2) the bank has obtained from a legal person not associated with the bank or the counterparty a reasoned legal opinion to the effect that, in the event of occurrences defined in item 1) of this paragraph, the bank's claims and obligations would not exceed the net sum indicated in that item, and which concluded that the netting agreements were signed in accordance with the applicable law of;

3) credit risk to each counterparty is aggregated to arrive at a single legal exposure across transactions with each counterparty. This aggregation shall be factored into credit limit purposes and internal capital purposes;

4) the contract shall not contain any clause which permits a non-defaulting counterparty to make limited payments only, or no payments at all, to the estate of the defaulting party, regardless of whether the defaulting party is a net creditor (i.e. walk-away clause).

A bank may use the contractual netting agreement between different categories of products provided that, in addition to requirements from paragraph 1 of this Section, the following conditions are fulfilled:

– the net sum referred to in paragraph 1, item 1) of this Section is the net sum of the positive and negative close out values of any included individual bilateral master agreement and of the positive and negative mark-to-market value of the individual transactions,

– the legal opinions referred to in paragraph 1, item 2) of this Section shall address the impact analysis of the netting agreement on the material provisions of any included bilateral master agreement.

c) Obligations of banks

284. For the purposes of mitigating the counterparty credit risk and calculating capital requirements for this risk in the case of contractual netting agreements, including contractual cross-product netting agreements, a bank shall:

1) establish procedures to ensure that the legal validity and enforceability of its contractual netting and of transactions included in the netting agreement is reviewed in light of changes in the relevant law;

2) maintain all netting agreements and the relevant documentation in an adequate manner;

3) factor the effects of netting into its measurement of each counterparty's aggregate credit risk exposure, and manage its counterparty credit risk on the basis of those effects of that measurement;

4) in the case of contractual cross-product netting agreements, the bank shall continue to comply with the requirements for the recognition of bilateral master netting agreements and the requirements for the recognition of credit risk mitigation, as applicable, in accordance with Part 3 of this Chapter, with respect to each included individual bilateral master agreement and transaction.

d) Effects of recognition

285. The effects of recognition of netting as risk-reducing and calculation of capital requirements for counterparty credit risk shall be recognised in accordance with the following:

1) where a bank uses the Standardised Method or the Internal Model Method – contractual netting shall be recognised in accordance with the provisions of Subpart 4, and Subpart 5 of this Part;

2) in the case of contracts for novation, the single net amounts fixed by such contracts rather than the gross amounts involved, may be weighted – where a bank uses the Mark-to-Market Method, it may calculate the current and nominal contractual values referred to in Section 250, paragraph 1 of this Decision by using this net amount, and where a bank uses the Original Exposure Method, it may use this net amount when calculating the nominal amount referred to in Section 251, paragraph 1 of this Decision; in this case a bank shall apply the percentages defined in Table 23;

3) where a bank uses the Mark-to-Market Method, in the case of other netting agreements, the current replacement cost shall be obtained by taking account of the actual hypothetical net replacement cost which results from the agreement; in the case where netting leads to a net obligation for the bank calculating the net replacement cost, the current replacement cost is calculated as zero. The figure for potential future credit exposure for all contracts included in a netting agreement shall be reduced in accordance with the following formula:

$$PCE_{red} = 0.4 \times PCE_{gross} + 0.6 \times NGR \times PCE_{gross,}$$

where:

PCE_{red} = the reduced figure for potential future credit exposure for all contracts with a given counterparty included in a legally valid bilateral netting agreement;
PCE_{gross} = the sum of the figures for potential future credit exposure for all contracts with a given counterparty which are included in a legally valid bilateral netting agreement and are calculated by multiplying their notional principal amounts by the percentages set out in Table 21;
NGR = the net-to-gross ratio calculated as the quotient of the net and gross replacement cost for all contracts included in a legally valid bilateral netting agreement.

When carrying out the calculation of potential future credit exposure in accordance with the formula set out in paragraph 1 of this Section, forward foreign exchange contracts or similar contracts in which a notional principal is equivalent to cash flows (if the cash flows fall due on the same value date and fully in or partially in the same currency), and which are included in the netting agreements referred to in that paragraph, shall be treated as if they were a single contract with a notional principal equivalent to the net receipts.

When using the Original Exposure Method, forward foreign exchange contracts or similar contracts referred to in paragraph 2 of this Section which are included in the netting agreements shall be treated as if they were a single contract with a notional principal equivalent to the net receipts, and the notional principal amounts shall be multiplied by the percentages given in Table 23. For all other contracts included in a netting agreement, a bank may apply the percentages in accordance with the table below:

Table 26

Original maturity	Interest rate contracts	Foreign exchange contracts
≤ 1 year	**0.35%**	**1.50%**
>1 ≤ 2 years	**0.75%**	**3.75%**
Additional allowance for each additional year	**0.75%**	**2.25%**

In the case of interest rate contracts, a bank may, subject to the consent of the National Bank of Serbia, choose either residual or original maturity.

7. Items in the trading book

286. For the purposes of this Subpart, items in the trading book shall include derivative instruments referred to in Annex 1 of this Decision and credit derivatives.

When calculating risk-weighted exposure amounts for counterparty risk of items in the trading book, a bank shall comply with the following principles:

1) in the case of TRS and CDS derivatives, to obtain a figure for potential future credit exposure under the Standardised Method, the nominal amount of the instrument shall be multiplied by the following percentages:

– 5%, where the reference obligation is one that, if it gave rise to a direct exposure of the bank, would be a qualifying item for the purposes of Section 337 of this Decision,

– 10%, where the reference obligation is one that, if it gave rise to a direct exposure of the bank, would not be a qualifying item for the purposes of Section 337 of this Decision,

– 0% if the exposure arising from a CDS derivative represents a long position in the underlying instrument, unless this derivative is subject to close-out upon the insolvency of the legal person whose exposure rising from the swap represents a short position in the underlying instrument, even though the underlying instrument has not defaulted,

– where the credit derivative provides protection in relation to “nth-to-default” amongst a number of underlying obligations, a bank shall determine which of the percentage figures set out in indents one and two of this item applies by reference to the obligation with the nth lowest credit quality which, if incurred by the bank, would be a qualifying item for the purposes of Section 337 of this Decision;

2) banks shall not use the Financial Collateral Simple Method set out in Section 173 of this Decision for the recognition of the effects of financial collateral;

3) in the case of repurchase transactions and securities or commodities lending or borrowing transactions booked in the trading book, banks may recognise as eligible collateral all financial instruments and commodities that are eligible to be included in the trading book;

4) for exposures arising from OTC derivative instruments booked in the trading book, banks may recognise commodities that are eligible to be included in the trading book as eligible collateral;

5) where securities or commodities which are not eligible under Part 3 of this Chapter are lent, sold or provided, borrowed, purchased or received by way of collateral or otherwise under such a transaction, and a bank is using supervisory volatility adjustments for the Financial Collateral Comprehensive Method under Subpart 3 of that Part, banks shall apply to

such instruments and commodities the volatility adjustment which is applied to non-main index equities listed on a recognised exchange;

6) where a bank is using the Own Estimates of Volatility Adjustments Approach under Part 3, Subpart 3 of this Chapter in respect of securities or commodities which are not eligible under that Part, it shall calculate volatility adjustments for each individual security of commodity. Where a bank has obtained the consent to use the Internal Model Method defined in that Part, it may also apply that approach in the trading book;

7) in relation to the recognition of master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions, or other capital market-driven transactions, banks shall only recognise netting across positions in the trading book and the non-trading book when the netted transactions fulfil the following conditions:

– underlying transactions are marked to market daily,

– underlying items borrowed, purchased or received under the transactions may be recognised as eligible financial collateral under Part 3 of this Chapter, without the application of items 3) to 6) of this paragraph;

8) where a credit derivative included in the trading book forms part of an internal hedge and the credit protection is recognised under Section 152 of this Decision, banks shall apply one of the following approaches:

– treat it as if there were no counterparty risk arising from the position in that credit derivative or

– consistently include for the purpose of calculating the capital requirements for counterparty credit risk all credit derivatives in the trading book forming part of internal hedges or purchased as protection against a counterparty credit risk exposure where the credit protection is recognised as eligible under Part 3 of this Chapter.

8. Capital requirements for exposures to a CCP

287. The provisions of this Subpart shall apply to all outstanding contracts and transactions with a CCP:

– financial instruments listed in Annex 1 of this Decision and credit derivatives,

– repurchase transactions,

– securities or commodities lending or borrowing transactions,

– margin lending transactions,

– long settlement transactions.

Banks may choose whether to apply one of the following two treatments to the contracts and transactions with a QCCP listed in paragraph 1 of this Section:

1) the treatment for trade exposures and exposures from default fund contributions set out in Section 292 of this Decision, except for the treatment set out in paragraph 1, item 2) of that Section, and Section 293 of that Decision, or

2) the treatment set out in Section 296 of this Decision.

Banks shall apply the treatment set out in Section 292 of this Decision, except for the treatment set out in paragraph 1, item 1) of that Section, and in Section 295 of this Decision as applicable, to the contracts and transactions with a non-qualifying CCP listed in paragraph 1 of this Section.

a) Monitoring of exposures to CCPs

288. Banks shall monitor all their exposures to CCPs and shall lay down procedures for the regular reporting of information on those exposures to senior management and appropriate committees.

Banks shall assess, through appropriate scenario analysis and stress testing, whether the level of capital held against exposures to a CCP, including potential future credit exposures, exposures from default fund contributions and, where the bank is acting as a clearing member, exposures resulting from contractual arrangements as laid down in Section 290 of this Decision, adequately relates to the inherent risks of those exposures.

b) Treatment of clearing members' exposures to CCPs

289. Where a bank acts as a clearing member, i.e. when it concludes contracts with a CCP directly within a clearing system, whether it is on its own behalf and for its own account, or as a financial intermediary between a client and a CCP, it shall calculate the capital requirements for its exposures to a CCP in accordance with this Section.

If a bank is a clearing member acting as a financial intermediary between a client and a CCP, it shall calculate the capital requirements for its exposures to a CCP in accordance with Subparts 1 to 7 of this Part, depending on the approach it applies.

When a bank is a client of a clearing member, it shall calculate the capital requirements for exposures to that clearing member under CCP-related transactions in accordance with Subparts 1 to 7 of this Part, depending on the approach it applies.

Without prejudice to the approach specified in paragraph 3 of this Section, a bank may calculate the capital requirements for its exposures

referred to in this paragraph in accordance with Section 291, paragraph 2 of this Decision if the following conditions have been fulfilled:

1) the bank's positions and assets related to those transactions, at the level of both the clearing member and the CCP, shall be distinguished and segregated (held in separate accounts in books, without the possibility of netting different positions and assigning losses under other positions to these positions and/or assets) from the positions and assets of both the clearing member and the other clients of that clearing member and as a result of that distinction and segregation those positions and assets are bankruptcy remote in the event of the default or insolvency of the clearing member or one or more of its other clients;

2) the applicable law and contractual provisions binding the bank or the CCP facilitate the transfer of positions relating to those contracts and transactions and of the corresponding collateral to another clearing member within the applicable margin period of risk in the event of default or insolvency of the original clearing member.

Where a bank acting as a clearing member enters into a contractual arrangement with a client of another clearing member for the purpose of segregated treatment of the client's positions and assets in the manner set out in paragraph 4, item 2) of this Section, a bank may attribute an exposure value zero to the contingent obligation arising from that contractual agreement.

c) Treatment of clearing members' exposures to clients

290. Where a bank acts as a clearing member and, in that capacity, acts as a financial intermediary between a client and a CCP, it shall calculate the capital requirements for its CCP-related transactions with the client in accordance with Subparts 1 to 7 of this Part, depending on the approach it applies, and in accordance with Chapter VI of this Decision.

Where a bank acting as a clearing member enters into a contractual arrangement with a client of another clearing member that facilitates the transfer of positions and collateral for that client referred to in Section 291, paragraph 2, item 2) of this Decision, when that clearing member enters into default, the bank may attribute an exposure value of zero to that contingent obligation arising from that contractual agreement.

A bank acting as a clearing member may apply a shorter margin period of risk when calculating the capital requirements for its exposures to a client in accordance with the Internal Model Method. The margin period of risk applied by the bank shall not be less than five days.

A bank acting as a clearing member may multiply its exposure by a scalar when calculating the capital requirement for its exposures to a client in accordance with the Mark-to-Market Method, Original Exposure Method or Standardised Method. The scalars that the bank may apply are the following:

– 0.71 for a margin period of risk of 5 days,
– 0.77 for a margin period of risk of 6 days,
– 0.84 for a margin period of risk of 7 days,
– 0.89 for a margin period of risk of 8 days,
– 0.95 for a margin period of risk of 9 days,
– 1 for a margin period of risk of 10 days or more.

The margin period of risk referred to in paragraphs 3 and 4 of this Section shall be the longer of the following two periods:

– five working days;
– the longest liquidity horizon for the contract or transaction included in a netting set announced by the QCCP through which the bank clears these contracts or transactions. If the liquidity horizon includes the additional period required for the transfer of positions relating to contracts and transactions from one clearing member, in the event of its default and insolvency, to another clearing member, the bank may exclude this additional period from the total liquidity horizon.

If the netting set includes transactions that the bank does not clear through the QCCP, the margin period of risk referred to in paragraphs 3 and 4 of this Section shall not be shorter than/shall not exceed 10 working days.

d) Treatment of exposures of client banks

291. Where a bank is a client, it shall calculate the capital requirements for its CCP-related transactions with its clearing member in accordance with Subparts 1 to 7 of this Part, depending on the approach it applies, and in accordance with Chapter VI of this Decision.

Where a bank is a client, it may calculate the capital requirements for its trade exposures for CCP-related transactions with its clearing member in accordance with Section 292 of this Decision provided that the following conditions are met:

1) the positions and assets of that bank related to those transactions are distinguished and segregated, at the level of both the clearing member and the CCP, from the positions and assets of both the clearing member and the other clients of that clearing member, and as a

result of that distinction and segregation those positions and assets are bankruptcy remote in the event of the default or insolvency of the clearing member or one or more of its other clients;

2) the applicable law and contractual provisions binding a bank or the CCP facilitate the transfer of the bank's positions relating to those contracts and transactions and of the corresponding collateral to another clearing member within the applicable margin period of risk in the event of default or insolvency of the clearing member. In such circumstances, the transfer shall be carried out at market value unless the client requests to close out the position at market value;

3) the bank has available an independent, reasoned legal opinion that concludes that, in the event of a legal challenge, the administrative authorities and courts would find that the client would bear no losses on account of the insolvency of its clearing member or any of its clearing members' clients under the applicable laws of the bank, its clearing member and the CCP, the law governing the transactions and contracts the bank clears through the CCP, the law governing the collateral and the law governing other elements referred to in item 2) of this paragraph;

4) the CCP is a QCCP.

Where a bank that is a client is not protected from losses in the case that the clearing member and another client of the clearing member jointly default, but all other conditions set out in paragraph 2 of this Section are met, the bank may calculate the capital requirements for its trade exposures for CCP-related transactions with its clearing member in accordance with Section 292 of this Decision, subject to replacing the 2% risk weight in paragraph 1, item 1) of this Section with a 4% risk weight.

Where a bank that is a client accesses the services of a CCP through indirect clearing arrangements with OTC derivatives, it may apply the treatment set out in paragraphs 2 or 3 of this Section only where the conditions in each paragraph are met at every level of the chain of intermediaries.

e) Capital requirements for trade exposures

292. A bank shall apply the following treatment to its trade exposures with CCPs:

1) it shall apply a risk weight of 2% to the exposure values of all its trade exposures with QCCPs;

2) it shall apply the risk weight used for the Standardised Approach to credit risk as set out in Section 33, paragraph 2, indent two of this Decision to all its trade exposures with non-qualifying CCPs;

3) where a bank is acting as a financial intermediary between a client and a CCP, and the terms of the CCP-related transaction stipulate that the bank is not obligated to reimburse the client for any losses suffered due to the changes in the value of that transaction in the event that the CCP defaults, the exposure value of the transaction with the CCP that corresponds to that CCP-related transaction is equal to zero.

Notwithstanding paragraph 1 of this Section, where assets posted as collateral to a CCP or a clearing member are bankruptcy remote in the event that the CCP or one or more of its clearing members become insolvent, a bank may attribute an exposure value of zero to the counterparty credit risk exposures for those assets.

A bank shall calculate exposure values of its trade exposures with a CCP in accordance with Subparts 1 to 7 of this Part, depending on the approach it applies.

For the purposes of Section 3, paragraph 2 of this Decision, a bank shall calculate the risk-weighted exposure amounts for its trade exposures with CCPs as the sum of the exposure values calculated in accordance with paragraphs 2 and 3 of this Section multiplied by the risk weight determined in accordance with paragraph 1 of that Section.

f) Capital requirements for pre-funded contributions to the default fund of a CCP

293. A bank acting as a clearing member shall apply the following treatment to its exposures arising from its contributions to the default fund of a CCP:

1) it shall calculate the capital funds requirement for its pre-funded contributions to the default fund of a QCCP in accordance with the provisions set out in Section 294 of this Decision;

2) it shall calculate the capital funds requirement for its pre-funded contributions to the default fund of a non-qualifying CCP in accordance with the provisions set out in Section 295 of this Decision.

g) Capital requirements for pre-funded contributions to the default fund of a QCCP

294. The exposure value for a bank’s pre-funded contribution to the default fund of a QCCP (DF_i) shall be the market value of the assets delivered by that bank reduced by any amount of that contribution that the QCCP has already used to absorb its losses following the default of one or more of its clearing members.

A bank shall calculate the capital requirement (K_i) to cover the exposure arising from its pre-funded contribution (DF_i) as follows:

$$K_i = \left(1 + \beta \times \frac{N}{N-2}\right) \times \frac{DF_i}{DF_{CM}} \times K_{CM}$$

where:
β = the concentration factor communicated to the bank by the CCP,
N = the number of clearing members communicated to the bank by the CCP,
DF_{CM} = the sum of pre-funded contributions of all clearing members of the CCP ($\sum_i DF_i$) communicated to the bank by the CCP,
K_{CM} = the sum of capital requirements of all clearing members of the CCP calculated in accordance with the appropriate provision of paragraph 3 of this Section ($\sum_i K_i$).

A bank shall calculate K_{CM} as follows:

1) where $K_{CCP} \leq DF_{CCP}$ the bank shall use the following formula:

$$K_{CM} = c_1 \times DF^*_{CM}$$

2) where $DF_{CCP} < K_{CCP} \leq DF^*$ the bank shall use the following formula:

$$K_{CM} = c_2 \times (K_{CCP} - DF_{CCP}) + c_1 \times (DF^* - K_{CCP})$$

3) where $DF^* < K_{CCP}$ the bank shall use the following formula:

$$K_{CM} = c_2 \times \mu \times (K_{CCP} - DF^*) + c2 \times DF^*_{CM}$$

where:
DF_{CCP} = the pre-funded financial resources of the CCP communicated to the bank by the CCP;
K_{CCP} = the hypothetical capital of the CCP communicated to the bank by the CCP;
$DF^* = DF_{CCP} + DF^*_{CM}$;
$DF^*_{CM} = DF_{CM} - 2 \times \overline{DF_i}$;
$\overline{DF_i}$; = the average pre-funded contribution, $\frac{1}{N} \times DF_{CM}$ communicated to the bank by the CCP;
c_1 = a capital factor equal to max $\left\{\frac{1.6\%}{\left(\frac{DF^*}{K_{CCP}}\right)^{0.3}}, 0.16\%\right\}$;
c_2 = a capital factor equal to 100%;
μ = 1.2.

For the purposes of Section 3 of this Decision, a bank shall calculate the risk-weighted exposure amounts arising from a bank's pre-funded contribution as the capital requirement (K_i) determined in accordance with paragraph 2 of this Section multiplied by 12.5.

Where K_{CCP} is equal to zero, banks shall use the value for c_1 of 0.16% for the purpose of the calculation in paragraph 3.

h) Capital requirements for pre-funded contributions to the default fund and for unfunded contributions to a non-qualifying CCP

295. A bank shall apply the following formula to calculate the capital requirement (K_i) for the exposures arising from its pre-funded contributions to the default of a non-qualifying CCP (DF_i) and from unfunded contributions (UF_i) to such CCP:

$$K_i = c_2 \times \mu \times (DF_i + UF_i)$$

where c_2 and μ are defined as in Section 294, paragraph 3 of this Decision.

For the purposes of paragraph 1 of this Section, unfunded contributions means contributions that a bank acting as a clearing member has contractually committed to provide to a CCP after the CCP has depleted its default fund to cover the losses it incurred following the default of one or more of its clearing members.

For the purposes of Section 3 of this Decision, a bank shall calculate the risk-weighted exposure amounts for exposures arising from a bank's pre-funded contribution as the capital requirement (K_i) determined in accordance with paragraph 1 of this Section multiplied by 12.5.

i) Alternative calculation of capital requirement for exposures to a QCCP

296. A bank shall apply the following formula to calculate the capital requirement (K_i) for the exposures arising from its trade exposures and the trade exposures of its clients (TE_i) and pre-funded contributions (DF_i) to the default fund of a QCCP:

$$K_i = 8\% \times \min (2\% \times TE_i + 1.250\% \times DF_i; 20\% \times TE_i).$$

j) Capital requirements for exposures to CCPs that cease to meet certain conditions

297. A bank shall apply the provisions set out in this Section where one of the following conditions has been met:

1) the bank has received from a CCP a notification that the CCP has stopped calculating hypothetical capital (K_{CCP});

2) it has become known to the bank, following a public announcement or notification from the competent authority of a CCP used by the bank or from that CCP itself, that the CCP will no longer comply with the conditions for qualification.

In the case referred to in paragraph 1, item 1) of this Section, if the National Bank of Serbia considers that the reasons in the notification are valid, it may permit the bank to apply the treatment set out in Section 296 of this Decision to its trade exposures and default fund contributions to that CCP.

Where the National Bank of Serbia considers that the reasons in the notification referred to in paragraph 1, item 1) of this Section are not valid, or in the case of item 2) of that paragraph, all banks, irrespective of the treatment they chose in accordance with Section 287, paragraph 2 of this Decision, shall within three months after receiving the notification referred to in that paragraph do the following:

1) cease to apply the treatment they chose in accordance with Section 287, paragraph 2 of this Decision;

2) apply the treatment set out in Section 292, paragraph 1, item 2) of this Decision to their trade exposures to that CCP;

3) apply the treatment set out in Section 295 of this Decision to their pre-funded contributions to the default fund of that CCP and to their unfunded contributions to that CCP;

4) treat exposures other than those listed in items 2) and 3) of this paragraph as exposures to a corporate in accordance with the Standardised Approach for credit risk as set out in Part 1 of this Chapter.

Chapter V

CAPITAL REQUIREMENT FOR SETTLEMENT/DELIVERY RISK

1. Settlement/delivery risk

298. A bank shall calculate the price difference to which it is exposed in respect of unsettled transactions.

The exposure in respect of the price difference for unsettled transactions is calculated as the difference between the agreed price and the current market value of the debt security, equity, foreign currency or

commodity in question, only where this difference involves a loss for the bank. The loss is incurred:

– when the current market value is higher than the agreed price – if the bank sells the security, foreign currency or commodity,

– when the current market value is lower than the agreed price – if the bank buys the security, foreign currency or commodity.

The bank shall calculate the capital requirement for the settlement/delivery risk in respect of unsettled transactions by multiplying the amount of the exposure calculated in accordance with paragraph 2 of this Section by the appropriate capital requirement factor in Table 27:

Table 27

Number of working days after due settlement/delivery date	Capital requirement factor
5–15	**8%**
16–30	**50%**
31–45	**75%**
46 or more	**100%**

2. Free deliveries

299. When calculating the capital requirement for the settlement/delivery risk in respect of free deliveries, a bank shall apply the treatment set out in Table 28 where:

– it has paid for securities, foreign currencies or commodities before the counterparty has delivered them or it has delivered securities, foreign currencies or commodities before the counterparty has paid for them,

– in the case of cross-border transactions, at least one day has elapsed since the day it made that payment or the delivery referred to in indent one of this paragraph.

Table 28

Column 1	Column 2	Column 3	Column 4
Transaction type	**Up to first contractual payment or delivery date**	**From the bank's first payment and/or delivery date up to four business days after the counterparty's contractual delivery/ payment date**	**From five business days post counterparty's contractual delivery/payment date**
Free delivery	No capital requirement	Transaction is treated as exposure against which	Transaction is treated as exposure against which

		capital requirement is calculated	capital requirement is calculated and is risk weighted at 1,250%

In applying a risk weight to free delivery exposures treated according to Column 3 of Table 28, a bank using the IRB Approach set out in Part 2 of Chapter IV of this Decision may assign PDs to counterparties, for which it has no non-trading book exposure, on the basis of the counterparty's credit assessment assigned by an eligible assessment institution. Banks using own estimates of LGDs may apply the LGD set out in Section 108 of this Decision to these exposures provided that they apply it to all free delivery exposures.

By way of derogation from paragraph 2 of this Section, a bank may apply the risk weights of the Standardised Approach as set out in Part 1 of Chapter IV of this Decision to the exposures referred to in that paragraph provided that it applies them to all free delivery exposures or may apply a 100% risk weight to all such exposures.

If the amount of positive exposure resulting from free delivery transactions is not material, banks may apply a risk weight of 100% to these exposures, except where a risk weight of 1,250% is required in accordance with Column 4 of Table 28.

By way of derogation from the treatment set out in Column 4 of Table 28, instead of applying a risk weight of 1,250% to free delivery exposures, banks may deduct the value of the payment/delivery made plus the amount of loss determined as set out in Section 298, paragraph 2 of this Decision from Common Equity Tier 1 capital items in accordance with Section 13, paragraph 1, item 11), indent three of this Decision.

3. Waiver from capital requirements

300. Where a system wide failure of a settlement system, a clearing system or a CCP occurs, a bank may cease to calculate capital requirements as set out in Sections 298 and 299 of this Decision, until regular system operation is resumed, whereof it shall notify the National Bank of Serbia without delay. In this case, the failure of a counterparty to settle a transaction shall not be deemed a default.

Chapter VI

CAPITAL REQUIREMENT FOR CREDIT VALUATION ADJUSTMENT RISK (CVA RISK)

301. A bank shall calculate the capital requirement for CVA risk for all OTC derivative instruments, both in the non-trading and in the trading book, other than credit derivatives recognised to reduce risk-weighted exposure amounts for credit risk. A bank shall include exposures in respect of securities financing transactions in the calculation of capital requirement for CVA risk if the National Bank of Serbia determines that the bank's CVA risk exposures arising from those transactions are material.

Transactions with a QCCP and a client's transactions with a clearing member, when the clearing member is acting as an intermediary between the client and the QCCP, and the transactions give rise to a trade exposure of the clearing member to the QCCP, are excluded from the capital requirement for CVA risk.

Banks shall exclude the following transactions from the capital requirement for CVA risk:

1) intragroup transactions where the counterparty and the bank are included in the same consolidation on a full basis and are subject to the same type of risk evaluation, measurement and control, where the counterparty is established in the Republic of Serbia, an EU member state or a non-EU member state that applies the same regulations governing the operation of such persons and the supervision of such operations, which are aligned with the relevant EU regulations;

2) transactions with the National Bank of Serbia, European Central Bank and central banks of EU member states, institutions of the Republic of Serbia charged with public debt management and public bodies of EU member states charged with public debt management, the Bank for International Settlements, multilateral development banks, which are classified as exposures to multilateral development banks in accordance with Section 44 of this Decision, public administrative bodies established and guaranteed by the central government and subject to the treatment set out in Section 43 of this Decision, the EFSF (European Financial Stability Facility) and the ESM (European Stability Mechanism);

3) transactions with territorial autonomies and local government units for which Section 42 of this Decision specifies a risk weight of 0%.

1. Advanced Method

302. A bank that has been granted the consent of the National Bank of Serbia to use the internal models approach for the specific position risk of debt securities in accordance with Section 392 of this Decision shall, for all transactions for which it has the consent to use the Internal Model Method for determining the exposure value for the associated counterparty credit risk in

accordance with Section 262 of this Decision, calculate the capital requirement for CVA risk by evaluating the impact of changes in the counterparties' credit spreads on the CVAs of all counterparties of those transactions, taking into account CVA hedges that are eligible in accordance with Section 309 of this Decision.

A bank shall use the internal models approach for the specific position risk of traded debt securities and shall apply a 99% confidence interval and a 10-day equivalent holding period. The internal model shall be used in such a way that it simulates changes in the credit spreads of counterparties, but does not model the sensitivity of the CVA to changes in other market factors, including changes in the value of the reference asset, commodity, currency or interest rate of a derivative.

303. The capital requirement for CVA risk for each counterparty shall be calculated in accordance with the following formula:

$$CVA = LGD_{MKT} \cdot \sum_{i=1}^{T} \max\left\{0, exp\left(-\frac{s_{i-1} \cdot t_{i-1}}{LGD_{MKT}}\right) - exp\left(-\frac{s_i \cdot t_i}{LGD_{MKT}}\right)\right\} \cdot \frac{EE_{i-1} \cdot D_{i-1} + EE_i \cdot D_i}{2}$$

where:

t_i = the time of the i-th revaluation, starting from t_0=0;
t_T = the longest contractual maturity across the netting sets with the counterparty;
s_i = the credit spread of the counterparty at tenor t_i, used to calculate the CVA of the counterparty. Where the CDS spread of the counterparty is available, a bank shall use that spread. Where such a spread is not available, a bank shall use a proxy spread that is appropriate having regard to the rating, sector and geographical region of the counterparty;
LGD_{MKT} = the LGD of the counterparty that shall be based on the spread of a market instrument of the counterparty if a counterparty instrument is available. Where a counterparty instrument is not available, it shall be based on the proxy spread that is appropriate having regard to the rating, sector and geographical region of the counterparty.
The first factor within the sum represents an approximation of the market implied marginal probability of a default occurring between times t_{i-1} and t_i;
EE_i = the expected exposure to the counterparty at revaluation time t_i, where exposures of different netting sets for such counterparty are added, and where the longest maturity of each netting set is given by the longest contractual maturity inside the netting set. A bank shall apply the treatment set out in Section 305 of this Decision in the case of margined trading, if the bank uses the EPE measure referred to in Section 270, paragraph 1, items 1) or 2) of this Decision for margined trades;
D_i = the default risk-free discount factor at time t_i, where D_0 =1.

304. When calculating the capital requirement for CVA risk for a counterparty, a bank shall base all inputs into its internal model for specific position risk of debt securities on the following formulae:

− where the model is based on full repricing, the formula in Section 303 of this Decision shall be used directly;
− where the model is based on credit spread sensitivities for specific tenors, a bank shall base each credit spread sensitivity on the following formula:

$$Regulatory\ CS01_i = 0.0001 \cdot t_i \cdot exp\left(-\frac{s_i \cdot t_i}{LGD_{MKT}}\right) \cdot \frac{EE_{i-1} \cdot D_{i-1} - EE_{i+1} \cdot D_{i+1}}{2}$$

where for the final time bucket i=T, the corresponding formula is:

$$Regulatory\ CS01_T = 0.0001 \cdot t_T \cdot exp\left(-\frac{s_T \cdot t_T}{LGD_{MKT}}\right) \cdot \frac{EE_{T-1} \cdot D_{T-1} - EE_T \cdot D_T}{2}$$

− where the model uses credit spread sensitivities to parallel shifts in credit spreads, a bank shall use the following formula:

$$Regulatory\ CS01 = 0.0001 \cdot \sum_{i=1}^{T}\left(t_i \cdot exp\left(-\frac{s_i \cdot t_i}{LGD_{MKT}}\right) - t_{i-1} \cdot exp\left(-\frac{s_{i-1} \cdot t_{i-1}}{LGD_{MKT}}\right)\right) \cdot \frac{EE_{i-1} \cdot D_{i-1} - EE_i \cdot D_i}{2}$$

− where the model uses second-order sensitivities to shifts in credit spreads (spread gamma), the gammas shall be calculated based on the formula in Section 303 of this Decision.

305. A bank using the EPE measure for collateralised OTC derivatives referred to in Section 270, paragraph 1, items 1) or 2) of this Decision shall, when determining the capital requirement for CVA risk in accordance with Section 303 of this Decision, do the following:

1) assume a constant EE profile;
2) set EE equal to the effective expected exposure as calculated under Section 270, paragraph 1, item 2) of this Decision for a maturity equal to the greater of the following:
− half of the longest maturity occurring in the netting set,
− the weighted average maturity of all transactions inside the netting set where notional transaction amounts serve as weights.

306. A bank granted consent of the National Bank of Serbia in accordance with Section 262 of this Decision to use the Internal Model Method to calculate counterparty credit risk exposure values in relation to the majority of its business, which uses the Mark-to-Market Method, the Original

Exposure Method or the Standardised Method for smaller portfolios, and which has the consent of the National Bank of Serbia to use the internal models approach for the specific position risk of debt securities in accordance with Section 392 of this Decision may, subject to consent of the National Bank of Serbia, calculate the capital requirement for CVA risk in accordance with Sections 302 and 303 of this Decision for the netting sets not subject to the Internal Model Method. The National Bank of Serbia shall grant this consent to the bank only if the bank uses the Mark-to-Market Method, Original Exposure Method or Standardised Method for a limited number of smaller portfolios.

For the purposes of a calculation under paragraph 1 of this Section and where the Internal Model Method does not produce an expected exposure profile, a bank shall:

1) assume a constant EE profile;
2) set EE equal to the expected exposure value as computed under the Mark-to-Market Method, Original Exposure Method or Standardised Method for a maturity equal to the greater of:
- half of the longest maturity occurring in the netting set;
- the weighted average maturity of all transactions inside the netting set where notional transaction amounts serve as weights.

307. A bank shall calculate the capital requirement for CVA risk in accordance with Section 402, paragraph 1, Sections 397 and 395 of this Decision as the sum of VaR and stressed VaR, which shall be calculated as follows:

- for the VaR, current parameter calibrations for expected exposure as set out in Section 279, paragraph 2 of this Decision shall be used;
- for the stressed VaR, future counterparty EE profiles using a stressed calibration as set out in Section 279, paragraph 2 of this Decision shall be used. The period of stress for the credit spread parameters shall be the most severe one-year stress period contained within the three-year stress period used for the exposure parameters;
- the three-times multiplier used in the calculation of capital requirements based on a VaR and a stressed VaR in accordance with Section 402, paragraph 1 of this Decision shall apply to the calculation of the capital requirement for CVA risk;
- the calculation shall be carried out on at least a monthly basis and the EE that is used shall be calculated on the same frequency. If lower than a daily frequency is used, for the purpose of the calculation specified in Section 402, item 1), indent two and item 2), indent two of this Decision, banks shall take the average over three months.

For exposures to a counterparty, for which the bank's internal methodology for assessing the credit spread does not produce a proxy spread that is appropriate with respect to the criteria of rating, sector and geographical region of the counterparty, the bank shall use the method set out in Section 308 of this Decision to calculate the capital requirement for CVA risk.

2. Standardised Method

308. A bank which does not calculate the capital requirement for CVA risk for its counterparties in accordance with the Advanced Method set out in Section 302 of this Decision shall calculate the capital requirement for this type of risk for each counterparty in accordance with the following formula, taking into account CVA hedges that are eligible in accordance with Section 309 of this Decision:

$$K = 2.33 \cdot \sqrt{h} \cdot \sqrt{\left(\sum_i 0.5 \cdot w_i \cdot \left(M_i \cdot EAD_i^{total} - M_i^{hedge} B_i\right) - \sum_{ind} w_{ind} \cdot M_{ind} \cdot B_{ind}\right)^2 + \sum_i 0.75 \cdot w_i^2 \cdot \left(M_i \cdot EAD_i^{total} - M_i^{hedge} B_i\right)^2}$$

where:

h = the one-year risk horizon, h = 1;
w_i = the risk weight applicable to counterparty i. This weight shall be assigned to the counterparty in accordance with the credit quality step set out in Table 29, based on a credit assessment by a nominated assessment institution. For a counterparty for which a credit assessment by a nominated assessment institution is not available:

- a bank using the IRB Approach shall map the internal rating of the counterparty to one of the external credit assessment,
- a bank using the Standardised Approach shall assign weight **w_i** 1% to the exposure to this counterparty, except where exposure to the counterparty in question is associated with high risk, when weight **w_i** 3% shall be assigned.

Table 29

Credit quality step	Weight w_i
1	0.7%
2	0.8%
3	1.0%
4	2.0%
5	3.0%

6	10.0%

EAD_i^{total} = the total counterparty credit risk exposure value (summed across all netting sets), including the effect of collateral in accordance with the Mark-to-Market Method, Original Exposure Method, Standardised Method or Internal Model Method, depending on the bank's choice of method applied to the calculation of the capital requirement for counterparty credit risk. A bank using the Mark-to-Market or the Original Exposure Method may use as EAD_i^{total} the fully adjusted exposure value (E*) in accordance with Section 177 of this Decision.

A bank not using the Internal Model Method for calculating capital requirements for counterparty credit risk shall discount the exposure amount by applying the following factor:

$$\frac{1 - e^{-0.05 * M_i}}{0.05 * M_i}$$

B_i = the notional value of purchased single name CDS derivatives (summed if more than one position) referencing counterparty i and used to hedge CVA risk. That notional amount shall be discounted by applying the following factor:

$$\frac{1 - e^{-0.05 * M_i^{hedge}}}{0.05 * M_i^{hedge}}$$

B_{ind} = the full notional amount of one or more CDS indices used to hedge CVA risk. That notional amount shall be discounted by applying the following factor:

$$\frac{1 - e^{-0.05 * M_{ind}}}{0.05 * M_{ind}}$$

w_{ind} = the risk weight applicable to CDS index for hedging against the risk of deterioration in the counterparty's credit quality, determined by calculating a weighted average of weights w_i that are applicable to the individual reference entities of the index;
M_i = the effective maturity of the transactions with counterparty i. For a bank using the Internal Model Method to calculate the counterparty credit risk exposure amount, Mi shall be determined as set out in Section 109, paragraph 2, item 7) of this Decision.

For a bank not using the Internal Model Method to calculate the counterparty credit risk exposure amount, M_i shall be determined as the weighted average of the remaining transaction maturity, and notional amounts of each transaction under Section 109, paragraph 2, item 2) of this

Decision shall be used as weights. In both cases, M_i shall not be capped at five years but at the longest contractual remaining maturity in the netting set;

M_i^{hedge} = the maturity of the hedge instrument with notional Bi (the quantities M_i^{hedge} are to be summed if these are several positions);
M_{ind} = the maturity of the CDS index. In the case of more than one CDS index position, M_{ind} is the weighted average maturity where notional position values serve as weights.

Where a counterparty, as a reference entity, is included in a CDS index used for hedging counterparty credit risk, the bank may subtract the notional amount attributable to that counterparty from the index CDS notional amount and treat it as a single name hedge (B_i) with maturity based on the maturity of the index.

3. Eligible hedges

309. Hedges shall be eligible hedges for the purposes of the calculation of capital requirement for CVA risk under the Advanced or Standardised Method only where they are used for the purpose of mitigating CVA risk and managed as such, and are one of the following:

− single-name CDS derivatives or other equivalent hedging instruments referencing the counterparty directly,
− index CDS, provided that the difference between any individual counterparty spread and the spreads of index CDS hedges is appropriately reflected in the calculation of the VaR.

The requirement in paragraph 1, indent two of this Section that the difference between any individual counterparty spread and the spreads of index CDS hedges is appropriately reflected in the calculation of the VaR shall also apply to cases where a bank uses a proxy for the spread of a counterparty.

For all counterparties for which a proxy spread is used, a bank shall use reasonable basis time series out of a representative group of similar names for which a spread is available.

If the difference between any individual counterparty spread and the spreads of index CDS hedges is not appropriately reflected in the calculation of the VaR, a bank may recognise only 50% of the notional amount of index CDS hedges in the VaR.

Over-hedging of the exposures with single name CDS under the Advanced Method is not allowed.

A bank shall not reflect other types of counterparty risk hedges in the calculation of the capital requirement for CVA risk. CDS or nth-to-default derivatives and CLN derivatives are not eligible hedges for the purposes of calculation of the capital requirement for CVA risk.

Eligible hedges that are included in the calculation of the capital requirement for CVA risk shall not be included in the calculation of the capital requirement for specific position risk or treated as credit risk mitigation technique other than for the counterparty credit risk of the same portfolio of transactions.

Chapter VII

CAPITAL REQUIREMENT FOR MARKET RISKS

310. The capital requirement for market risks shall equal the sum of:

1) capital requirement for position risk for trading-book business activities,
2) capital requirement for foreign exchange risk for all business activities,
3) capital requirement for commodities risk for all business activities.

The bank shall calculate the capital requirement for market risks as set out in Parts 1 to 5 of this Chapter.

By way of derogation from paragraph 2 of this Section, a bank may use the internal models approach to calculate the capital requirements for position risk, foreign exchange risk and commodities risk, subject to consent of the National Bank of Serbia, in accordance with Part 6 of this Chapter.

By way of derogation from paragraph 2 or paragraph 3 of this Section, as applicable, a bank may calculate the capital requirement for position risk in accordance with Chapter IV and Section 299 of this Decision, if the following conditions are met:

1) the value of trading book positions shall not exceed 5% of the value of total business of the bank or RSD 1,800,000,000 for more than three business days in one calendar month;
2) the value of trading book positions shall at no time exceed 6% of the value of total business of the bank or RSD 2,400,000,000.

A bank shall promptly notify the National Bank of Serbia of any

non-compliance with and/or exceeding of the limits referred to in paragraph 4, item 2) of this Section. If thereafter the National Bank of Serbia establishes that the bank does not meet the conditions set out in paragraph 4, item1), the National Bank of Serbia shall notify the bank that it shall be required to calculate the capital requirement for position risk as set out in paragraph 2 or paragraph 3 of this Section, as applicable, in the next maintenance period.

The value of total business of the bank, within the meaning of paragraph 4 of this Section, represents the sum of the gross carrying amount of balance sheet assets and off-balance sheet items from the non-trading book and the value of the trading book calculated in accordance with paragraph 7 of this Section, denominated in dinars using the official middle exchange rate of the National Bank of Serbia as at the calculation date.

When calculating the share of trading book value in the value of total business of the bank (the materiality of the trading book), within the meaning of paragraph 4 of this Section, debt securities shall be valued at their nominal or market prices, equities at their market prices, financial derivatives at the nominal or market values of the underlying financial instrument or commodity, as applicable, and long and short positions shall be summed up regardless of their respective signs.

Part 1

Trading book

1. Assignment of positions to the trading and non-trading book

311. A bank shall assign all on-balance sheet positions and off-balance sheet items to the trading or non-trading book, as applicable, taking in consideration their characteristics and purpose.

312. A bank shall assign to the trading book all positions in financial instruments and commodities held either with trading intent or in order to hedge positions in other financial instruments from the trading book which shall be free of restrictions on their tradability or ability to be hedged.

A bank shall assign to the non-trading book on- and off-balance sheet positions not assigned to the trading book.

Positions in financial instruments and commodities held by a bank with trading intent shall mean positions intended to be resold short-term and/or positions intended to benefit from actual or expected short-term price differences between buying and selling prices, or from other price or interest

rate variations, as applicable.

The positions referred to in paragraph 3 of this Section shall include proprietary positions and positions arising from client servicing and market making where the bank acts as the market maker.

A bank may assign the positions referred to in paragraph 3 of this Section to the trading book only if the following conditions are met:

1) the bank acquired the positions with trading intent;
2) in its internal acts, the bank has set up a trading strategy for the positions or portfolios, approved by the bank's executive board, which shall include the expected holding period;
3) the bank shall have in place clearly defined policies and procedures for the active management of these positions which shall include the following:
– defining which positions may be entered into by which trading desk,
– setting individual position limits, ongoing monitoring of compliance with and possible exceeding of these limits, and periodical review of their appropriateness,
– authorisation of individual employees to enter into positions within agreed limits according to the approved trading strategy,
– setting up reporting to the executive board on positions held in the trading book as an integral part of the bank's risk management process,
– positions are actively monitored with reference to relevant market information sources and an assessment made of the marketability or hedge-ability of the position or its component risks, including the assessment of the quality and availability of market inputs to the valuation process, or of the level of market turnover and sizes of positions traded in the market,
– setting up internal anti-fraud procedures and controls.
4) the bank shall have in place policies and procedures to monitor the positions against the bank's trading strategy including the monitoring of turnover and positions for which the originally intended holding period has been exceeded.

2. Management of the trading book and valuation of trading book positions

313. Banks shall have in place clearly documented policies and procedures for the management of the trading book which shall address in particular:

– the activities the bank considers to be trading, or as constituting part of the trading book for the purpose of calculating capital requirements for market risks, and the criteria for including positions in the trading book in accordance with Sections 311 and 312 of this Decision,

– the extent to which an individual trading book position can be marked-to-market daily by reference to a liquid two-way market,

– for positions that are marked-to-model, the extent to which the bank can identify all material risks of the position, hedge all material risks of the position with instruments for which a liquid two-way market exists, and derive reliable estimates for the key assumptions and parameters used in the model,

– the manner in which the bank generates valuations for the positions that can be validated and confirmed by a person not related to the bank,

– the manner and extent to which legal or other restrictions would impede the bank's ability to effect a liquidation or hedge a position in the short term,

– the manner in which the bank can actively manage the risks of trading book positions,

– the manner in which the bank may transfer risk or positions between the trading and non-trading books, the extent of and the criteria for such transfers.

The policies and procedures referred to in paragraph 1 of this Section and their implementation shall be subject to regular internal audit in the bank.

314. Banks may include positions arising from repurchase and reverse repurchase transactions, and securities or commodities lending or borrowing transactions in the trading book for the purposes of calculating the capital requirement for market risk if both legs of the said transactions are in the form of cash or securities and the conditions set out in Section 312 of this Decision are met and all positions arising from such transactions are included in the trading book.

315. Banks shall establish and maintain adequate systems and controls sufficient to provide prudent and reliable valuation estimates of trading book positions even in stressed conditions, which are based on current market values and in particular include setting up appropriate internal acts for the process of valuation of these positions. These systems and controls shall include the following elements:

– clearly defined responsibilities of the bank's organisational units involved in the valuation process,

– methods for valuation of trading book positions in accordance with

Sections 316 and 317 of this Decision, criteria for the selection of these methods and the manner and frequency of reviewing their appropriateness,

– sources of market information used in the valuation process and analysis of their appropriateness,

– guidelines for valuation of positions using unobservable inputs reflecting the bank's assumptions of what market participants would use in pricing the position,

– frequency of independent valuation of positions by staff in the organisational unit charged with valuation of positions,

– time of downloading data on closing prices and other market information used in the valuation process,

– procedures for adjusting valuation methods.

Any material changes to internal acts governing the process of valuation of positions must be approved by the bank's executive board.

The systems and controls referred to in paragraph 1 of this Section shall also include the manner in which the organisational unit charged with valuation of positions reports to the executive board.

The bank shall ensure that the organisational unit referred to in paragraph 2 of this Section shall be independent of the organisational unit charged with assuming market risks.

316. Banks shall mark all their trading book positions to market, which means at least daily adjustment of the value of these positions against readily available close out prices of these positions that are obtained from independent sources of market inputs (e.g. inputs from recognised exchanges).

When marking to market, a bank shall use the more prudent estimate, i.e. the more prudent side of the bid and offer price for that position, unless the bank is a market maker for the relevant type of financial instrument or commodity in question when it can close out at mid-market. Where banks make use of this derogation, they shall every six months present to the National Bank of Serbia documentation of the positions closed out in this way and furnish evidence that they can close out at mid-market.

317. Banks shall mark to model their positions where marking to market is not possible because independent sources of market information are not available or the bank has reasonable doubts regarding their objectiveness, or in the case of less liquid positions.

The valuation of trading book positions using the model referred to in paragraph 1 of this Section may be benchmarked, extrapolated or

otherwise calculated from market inputs.

Less liquid positions can arise from changes in market factors or bank-related factors (e.g. concentrated positions and/or positions for which the originally intended holding period has been exceeded).

Banks shall comply with the following requirements when marking to model as set out in paragraph 1 of this Section:

– banks shall ensure that all qualitative and quantitative model assumptions are appropriately documented,
– banks shall identify all material risks arising from trading book positions subject to the models,
– members of the executive board shall be aware of trading book positions subject to the models and shall understand the impact of this valuation on the reliability of reporting on the risks to which the bank is or can be exposed in its business, and the performance of the bank's business arising from the trading activity,
– banks shall source market inputs used in the valuation process, where possible, in line with market prices, and shall assess the appropriateness of the market inputs of the particular position being valued and the parameters of the model on a frequent basis,
– where available, banks shall use valuation methodologies which are accepted market practice for particular financial instruments or commodities,
– where the model for the valuation of trading book positions is developed internally by the bank, it shall have been developed by staff with appropriate knowledge and experience employed in organisational units independent from organisational units charged with assuming market risks. The model shall be based on appropriate assumptions which have been validated by an organisational unit not involved in the model development process and not charged with assuming market risks. This shall include the validation of appropriateness of mathematical formulae, assumptions and model implementation,
– banks shall have in place formal change control procedures and shall hold a secure copy of the model and use it periodically to check the outputs of the model used,
– the staff involved in the risk management process shall be aware of the weaknesses of the model used in order to adequately reflect their effect on the output of the model,
– the banks' models shall be subject to regular review to determine their adequacy at least annually, which shall include assessing the appropriateness of assumptions, analysis of profit and loss versus risk factors, and comparison of actual close out values to model outputs.

At least monthly, banks shall perform independent price verification regardless of the method they use for daily valuation of trading book position. Verification can be performed more frequently, depending on the frequency of the trading activity and the nature of the market. In the process of verification of market prices, banks shall use independent and objective pricing sources, if available, which shall include: current market value on a liquid market, prices at which banks trade identical or similar instruments in the market, information obtained from all relevant market participants, valuations of collateral of counterparties, etc.

Verification of market prices or prices obtained as a result of model application shall be performed by staff independent from staff in the organisational unit charged with assuming market risks. Where independent and objective pricing sources are not available, certain prudent additional valuation adjustments are required, which the bank shall calculate at least quarterly.

Banks shall calculate the additional valuation adjustments referred to in this Section and Section 318 of this Decision as 0.1% of the sum of the absolute value of assets and liabilities calculated at fair value in accordance with the IFRS/IAS. Banks may exclude the fair value of assets and liabilities netted off against any offsetting positions in the identical assets or liabilities from the calculation of additional valuation adjustments. If the change in the manner of valuation of assets or liabilities does not impact or partially impacts Common Equity Tier 1 capital, banks may include in the calculation of additional valuation adjustments the fair value of assets or liabilities proportionate to their impact on Common Equity Tier 1 capital.

All assets and liabilities calculated at fair value in accordance with the IFRS/IAS, which are not included or are partially included in the calculation of additional valuation adjustments referred to in paragraph 6 of this Section, must be properly documented, approved by the bank’s executive board, and subject to internal audit in the bank at least annually.

Banks shall establish and regularly review procedures for considering valuation adjustments and for independent control of calculated amounts of additional valuation adjustments.

318. Banks shall adjust the values of trading book positions in accordance with Section 317 of this Decision taking into consideration:

– general factors: credit spreads, close-out costs, operational risks, market price uncertainty, early termination, investing and funding costs, future administrative costs and, where relevant, model risk,
– factors relating to the estimated liquidity of the positions: the

amount of time it would take to hedge out the position or the risks within the position, as applicable, the volatility and average of bid and offer spreads, the availability of market quotes (number and identity of market makers), the volatility and average of trading volumes including trading volumes during periods of market stress, market concentrations, the ageing of positions, the extent to which valuation relies on marking-to-model and the impact of other model risks.

When using third party models for valuations of trading book positions, banks shall consider whether to apply a valuation adjustment of the positions calculated in this way. In addition, banks shall consider the need for adjusting the values of less liquid positions and on an ongoing basis review the continued suitability of these adjustments. Banks shall also explicitly assess the need for valuation adjustments of positions relating to possible uncertainty of parameter inputs used by models.

Where a bank holds in its portfolio complex instruments, including securitisation instruments or n-th-to-default credit derivatives, it shall assess the need for valuation adjustments to reflect possible risks associated with using an inappropriate valuation methodology and the possible risks associated with using unobservable (and possibly inappropriate) parameters in the model.

3. Internal hedges

319. Internal hedge is a trading book position that materially or fully offsets the component risk elements of a non-trading book position or set of positions.

Internal hedges shall be included in the trading book provided that they are held with trading intent in accordance with Section 312 of this Decision, that they are subject to the valuation methods set out in Sections 316 and 317 of this Decision, and that the following requirements are met:

– an internal hedge shall not be primarily intended to reduce capital requirements,
– all internal hedging transactions shall be properly documented, approved by the bank’s executive board or another person authorised by this board and subject to the bank’s internal audit,
– internal hedging transactions shall be dealt with at market conditions,
– the market risks that are generated by the internal hedge shall be managed in the trading book within the authorised limits,
– procedures shall be in place for monitoring internal hedging transactions.

The inclusion of internal hedge positions in the trading book within the meaning of paragraph 2 of this Section shall not affect the calculation of capital requirements for that leg of the internal hedging transaction which relates to positions or sets of positions in the non-trading book.

By way of derogation from paragraph 2 of this Section, when a bank hedges a credit risk exposure or counterparty risk exposure in respect of a non-trading book position or set of positions using a credit derivative booked in its trading book using an internal hedge, the non-trading book exposure shall not be deemed to be hedged for the purposes of calculating capital requirements unless the bank purchases from an unrelated protection provider a corresponding credit derivative meeting the requirements for unfunded credit protection in the trading book.

In the case set out in paragraph 4 of this Section, neither the internal nor external credit derivative hedge shall be included in the trading book for the purposes of calculating capital requirements.

Part 2

Capital requirement for position risk

320. The bank’s capital requirement for position risk shall be the sum of the capital requirement for the general and specific risk of its positions in debt securities and the capital requirement for the general and specific risk of its positions in equity instruments.

Securitisation positions in the trading book shall be treated as debt instruments for the purpose of calculating the capital requirement for position risk.

When calculating the capital requirement for position risk, the net position in each individual instrument assigned to the trading book shall be calculated as the difference between a bank’s long (equity or purchase) and short (borrowing from other persons or sale) position in this instrument.

The netting of long and short positions shall only be allowed for equivalent instruments.

All net positions in instruments denominated in a foreign currency shall be converted into dinars daily at the official middle exchange rate of the National Bank of Serbia as at the calculation date.

1. Financial derivatives and other financial instruments held in the trading book

321. For the purposes of calculating the capital requirement for position risk, the positions in financial derivatives shall be broken down into notional positions or positions in the underlying security, as follows:

1) if the underlying instruments are interest rates or debt securities:
– into long and short positions in the debt security that is the subject of the contract (hereinafter: the underlying debt instrument),
– into notional long and short positions in a risk-free debt security, and/or a zero coupon government bond (hereinafter: notional debt instrument),
– into long and short positions in the underlying debt instrument and the notional debt instrument;
2) if the underlying instruments are equities:
– into long and short positions in the equity that is the subject of the contract, equity portfolios or stock indices of those equities (hereinafter: the underlying equity),
– into long and short positions in the notional debt instrument;
3) if the underlying instruments are commodities:
– into long and short positions in the underlying commodity,
– into long and short positions in the notional debt instrument.

322. Banks shall include positions in securities which are the subject of a contract and represent the result of breaking down of positions in financial derivatives in the calculation of capital requirements for specific and general position risks arising from debt or equity securities in the amount of the market value of these securities.

The positions in notional debt instruments shall be included in the calculation of capital requirements for general position risks arising from debt securities. When calculating capital requirements for specific risks, positions in notional debt instruments shall be included in the category of positions assigned a specific risk weight of 0%.

2. Futures and forwards

323. For futures or forward contracts relating to securities or interest rates, the long position is a position where the bank is paid the agreed interest rate or transferred a security, and the short position is a position where the bank pays the agreed interest rate or transfers a security.

A long (short) position in an interest rate futures or forward contract shall be treated as a combination of a long (short) position in a

notional debt instrument with maturity equal to the settlement/delivery date plus the maturity period of the underlying instrument and the short (long) position in the notional debt instrument with maturity equal to the delivery/settlement date.

Forward commitment to buy (sell) debt securities shall be treated as a combination of a long (short) position in an underlying debt security with its remaining maturity and a short (long) position in a notional debt instrument with maturity equal to that of the forward contract.

A long (short) position in an equity futures or forward contract shall be treated as a combination of a long (short) position in an underlying equity instrument and a short (long) position in a notional debt instrument with maturity equal to that of the contract.

A long (short) position in a currency forward contract shall be treated as a combination of a long (short) position in a notional debt instrument in the purchased currency and a short (long) position in a notional debt instrument in the currency sold with maturity equal to that of the contract.

3. Options and warrants

324. For the purpose of calculating the capital requirement for position risk, positions in options and warrants on interest rates, debt instruments, equities, equity indices, financial futures, swaps and foreign currencies shall be treated as if they were positions equal in value to the amount of the underlying exposure, multiplied by its delta. The latter positions may be netted off against any offsetting positions in the identical underlying securities or derivatives.

The delta used shall be that of the exchange where the option is traded. For OTC-options, or where delta is not available from the exchange concerned, the bank may calculate delta itself using an appropriate internal model, subject to prior consent of the National Bank of Serbia.

The National Bank of Serbia shall grant prior consent referred to in paragraph 2 of this Section to the bank if it finds that the model appropriately estimates the rate of change of the option’s or warrant’s value with respect to incremental (slight) changes in the market price of the underlying.

Banks shall adequately reflect other risks, apart from the delta risk, associated with options in the calculation of capital requirements for position risk.

Options relating to interest rates, swaps, debt and equity securities, stock indices, forwards and futures, and warrants relating to debt and equity securities shall be subject to the provisions of Part 5 of this Chapter.

4. Swaps

325. Positions in swap contracts shall be treated as a combination of notional positions in underlying securities of appropriate maturities, as follows:

1) in the case of interest rate swaps, as a combination of a long and a short position in a notional floating-rate debt instrument (of maturity equivalent to the period until the next interest rate fixing) and/or in a fixed-rate instrument (with the same maturity as the swap itself);

2) in the case of cross-currency interest rate swaps, as a combination of a long and a short position in notional debt instruments in corresponding currencies, in accordance with item 1) of this Section, depending on whether the interest rate on the currency in question is fixed or floating;

3) in the case of equity swaps, as a combination of:

– a long (short) position in an underlying equity instrument under which the bank receives (pays) an amount based on the change in the price of that instrument, and

– a short (long) position in an underlying equity instrument or underlying debt instrument under which the bank pays (receives) an amount based on the change in the price of that instrument.

5. Convertible securities

326. The positions in convertible securities shall be treated as positions in equity securities where:

– the period until the earliest possible conversion date is shorter than three months or, if the earliest date has already passed, the period until the next date is shorter than one year,

– the market value of the debt security is less than 10% higher than the corresponding market value of the equity security which may be obtained by conversion.

Where the requirements in paragraph 1 of this Section are not met, positions in convertible securities shall be treated as positions in debt securities.

The positions in convertible securities may be netted off against any offsetting positions in debt or equity securities only if the bank has

sufficient capital to cover possible conversion-related losses.

6. Positions in trading book securities arising from repurchase transactions or securities lending transactions

327. The positions in trading book securities arising from repurchase transactions or securities lending transactions shall be treated as a combination of a long position in a temporarily sold or lent debt or equity security and a notional short position in a government bond of appropriate maturity with a coupon rate equal to the yield rate on these transactions.

The positions referred to in paragraph 1 of this Section may be offset (netted off) against offsetting positions in equivalent securities.

328. Positions in trading book securities arising from reverse repurchase transactions or securities borrowing transactions shall be treated as notional long positions in government bonds of appropriate maturity with a coupon rate equal to the yield rate on these transactions.

7. Credit derivatives

329. When calculating the capital requirement for general and specific position risk, the protection seller shall use the notional amount of the credit derivative unless otherwise specified in this Decision.

Notwithstanding paragraph 1 of this Section, the bank may elect to replace the notional value by the notional value plus the net market value change of the credit derivative since trade inception, a net downward change in the market value from the protection seller’s perspective carrying a negative sign.

For the purpose of calculating the capital requirement for specific position risk, other than for TRS derivatives, the maturity of the credit derivative contract, rather than the maturity of the obligation, shall apply.

Positions are determined as follows:

1) the protection seller shall record a TRS derivative as a combination of a long position in the reference obligation (for the purpose of calculating capital requirements for general and specific position risk) and a short position in a government bond with a maturity equivalent to the period until the next interest fixing and which is assigned a 0% risk weight under Chapter IV, Part 1 of this Decision for the purpose of calculating the capital requirement for general position risk;

2) the protection seller shall record a CDS derivative as a synthetic long position in a reference obligation (for the purpose of calculating the

capital requirement for specific position risk), while the capital requirement for general position risk shall not be calculated in this respect. By way of derogation, if the CDS derivative is assigned a credit assessment by an eligible assessment institution and it meets the conditions set out in Section 337 of this Decision, the protection seller shall record the CDS derivative as a long position in the derivative. If premium or interest payments are due under the CDS derivative, these cash flows shall be represented as positions in notional debt instruments with a maturity equivalent to that of the contract;

3) for the purpose of calculating the capital requirement for general position risk, a single name CLN derivative shall be recorded as a long position in the interest rate product. For the purpose of calculating the capital requirement for specific position risk, a single name CLN shall be recorded as a synthetic long position in a reference obligation and an additional long position in the issuer of the derivative. By derogation, where the CLN derivative has been assigned a credit assessment of an eligible assessment institution and it meets the conditions set out in Section 337 of this Decision, a single long position in the derivative shall be recorded for the purpose of calculating the capital requirement for specific position risk;

4) for the purpose of calculating the capital requirement for specific position risk, a multiple name CLN derivative providing proportional protection shall be recorded as a long position in the issuer of the derivative and a position in each reference entity, with the total notional amount of the derivative assigned across the positions according to the proportion of the total notional amount of the contract that each exposure to a reference entity represents. Where more than one exposure of a reference entity can be selected, the exposure with the highest risk weight shall be included in the calculation of the capital requirement for specific position risk;

5) a first-asset-to-default credit derivative shall be recorded as a position for the notional amount in an obligation of each reference entity. If the size of the maximum credit event payment is lower than the capital requirement under this method, the bank may calculate the capital requirement for specific position risk on the basis of the maximum payment amount;

6) an n-th-asset-to-default credit derivative shall be recorded as a position for the notional amount in an obligation of each reference entity less the n-1 reference entities with the lowest specific risk capital requirement. If the size of the maximum credit event payment is lower than the capital requirement under this method, the bank may calculate the capital requirement for specific position risk on the basis of the maximum payment amount.

Where an n-th-to-default credit derivative is assigned a credit assessment of an eligible assessment institution, the protection seller shall calculate the capital requirement for specific position risk using the rating of

the derivative and apply the respective securitisation risk weights as applicable.

For the purpose of calculating the capital requirement for position risk, for the protection buyer, the positions arising from the use of credit derivatives are determined as the mirror principle of the protection seller, with the exception of a credit linked note (which entails no short position in the issuer). When calculating the capital requirement for the protection buyer, the notional amount of the credit derivative contract shall be used.

By derogation from the previous paragraph, the bank may elect to replace the notional value by the notional value plus the net market value change of the credit derivative since trade inception, a net downward change from the protection seller's perspective carrying a negative sign.

If at a given moment there is a call option in combination with a step-up, such moment is treated as the maturity of the protection instrument.

Credit derivatives in accordance with Section 341, paragraphs 1 or 4, shall be included only in the determination of the specific risk capital requirements in accordance with paragraph 5 of this Section.

8. Sensitivity models

330. Banks which mark to market and manage the interest-rate risk on the financial instruments covered in Section 323, paragraphs 1 to 3 and paragraph 5, Section 324, paragraph 1 and Section 325, items 1) and 2) of this Decision on a discounted-future-cash-flow basis may, subject to prior consent of the National Bank of Serbia, use sensitivity models to calculate the positions in these instruments and the positions in any bond which is amortised over its residual life (rather than via one final repayment of principal at due date).

Banks shall include the positions obtained by using the sensitivity model in the calculation of capital requirements for general position risk of debt instruments.

The National Bank of Serbia shall grant prior consent to a bank to use the sensitivity model if it meets the following conditions:

– the model generates positions which have the same sensitivity to interest-rate changes as the underlying cash flows,
– the sensitivity is assessed with reference to independent movements in sample interest rates across the yield curve, with at least one sensitivity point in each of the maturity bands set out in the table in Section

343 of this Decision (Table 31).

When applying for the consent referred to in paragraph 1 of this Section, banks shall submit to the National Bank of Serbia:

– documentation on the type of financial instruments to which the sensitivity model shall be applied,
– documentation on key characteristics and assumptions of the sensitivity model,
– documentation demonstrating fulfilment of the conditions set out in paragraph 3 of this Section.

If a bank which has been granted the consent referred to in paragraph 1 of this Section ceases to comply with the conditions set out in paragraph 3 of this Section, it shall promptly present to the National Bank of Serbia a plan for a timely return to compliance or demonstrate that the effects of non-compliance are immaterial. If the bank has submitted this plan, it shall promptly notify the National Bank of Serbia of its compliance with the conditions set out in paragraph 3 of this Section within the planned timeframe.

The National Bank of Serbia may revoke the consent referred to in paragraph 1 of this Section if it finds that the bank has ceased to comply with the conditions set out in paragraph 3 of this Section and the effects of the non-compliance are material, if the bank failed to submit the plan referred to in paragraph 5 of this Section, if the submitted plan is inadequate or the bank has failed to act in accordance with the submitted plan.

331. Banks which do not use the sensitivity models under Section 330 of this Decision may, for the purpose of calculating the capital requirement for general position risk and before assigning positions in derivatives across positions in underlying securities, net off long and short positions in identical instruments covered in Section 323, paragraphs 1 to 3 and paragraph 5, Section 324, paragraph 1 and Section 325, items 1) and 2) of this Decision, if the following conditions are met:

1) the positions are of the same nominal value and denominated in the same currency;
2) the reference rates (for floating-rate positions) or the coupon rates (for fixed-rate positions) are the same or closely matched;
3) the next interest-fixing date (for floating-rate positions) or maturity date (for fixed-rate positions) correspond with the following limits:
– they are the same day for positions where the period until the next interest-fixing date and/or maturity date is less than one month,
– they are within seven days where the period until the next interest-fixing date and/or maturity date is between one month and one year,
– they are within 30 days where the period until the next interest-

fixing date and/or maturity date is over one year.

9. Position risk of debt securities

332. The capital requirement for position risk of debt securities shall equal the sum of capital requirements for specific and general position risk of these securities.

333. Banks shall classify net positions in each debt security according to the currency in which they are denominated and shall calculate the capital requirement for general and specific position risk of this security in each individual currency separately.

a) Specific position risk of debt securities

334. The bank may cap the capital requirement for specific risk of a net position in a debt instrument at the maximum possible default-risk related loss. For a short position, that cap may be calculated as a change in value due to the instrument or, where relevant, the underlying exposure immediately becoming default risk-free.

b) Capital requirements for non-securitisation debt instruments

335. The bank shall assign its net positions in the trading book, other than securitisation positions treated in accordance with Section 320, paragraphs 2 to 4 of this Decision, to the appropriate categories on the basis of their issuer/obligor, external or internal credit assessment, and residual maturity, and then multiply them by the prescribed weights shown in the table below (Table 30):

Table 30

Category	Risk weight
Debt securities which would receive a 0% risk weight under the Standardised Approach for credit risk.	0%
Debt securities which would receive a 20% or 50% risk weight under the Standardised Approach for credit risk and other qualifying positions as defined in Section 337 of this Decision.	0.25% (residual term to maturity 6 months or less) 1.00% (residual term to maturity greater than 6 months and up to 24 months) 1.60% (residual term to maturity exceeding 24 months)

Debt securities which would receive a 100% risk weight under the Standardised Approach for credit risk.	8.00%
Debt securities which would receive a 150% risk weight under the Standardised Approach for credit risk.	12.00%

In order to calculate its capital requirement for specific position risk, the bank shall sum its weighted positions resulting from the application of Table 30 regardless of whether they are long or short.

When calculating capital requirements for specific position risk of debt securities, a bank shall not take into account trading book positions in debt securities issued by the bank itself.

336. A bank applying the IRB Approach to the exposure class to which the issuer of a debt security is assigned shall determine the credit quality step of the issuer for the purpose of classifying the debt security into the appropriate category set out in the table in Section 335 of this Decision (Table 30) on the basis of the issuer's PD. This PD shall be equivalent to or lower than the PD associated with the appropriate credit quality step under the Standardised Approach for credit risk.

For bonds assigned a risk weight of 10% in accordance with Section 57, paragraphs 1 and 2 of this Decision, banks may calculate the specific risk capital requirement as half of the specific risk capital requirement calculated using an appropriate risk weight, as set out in Table 30 in Section 335 of this Decision for debt securities assigned a 20% or 50% risk weight under the Standardised Approach for credit risk and qualifying positions set out in Section 337 of this Decision.

337. Qualifying positions are:

1) long and short positions in debt securities for which a credit assessment by a nominated assessment institution is not available and which

meet the following conditions:

– they are considered by the bank to be sufficiently liquid,

– their credit quality is, according to the bank's own discretion, at least equivalent to that of the debt securities assigned a 20% or 50% risk weight under the Standardised Approach for credit risk (Table 30 in Section 335 of this Decision),

– they are listed on at least one recognised exchange;

2) long and short positions in debt securities issued by banks which calculate capital requirements as set out by this Decision or EU regulations on the calculation of capital requirements (or regulations harmonised with these EU regulations, as applicable), which are considered by the bank to be sufficiently liquid and whose credit quality is, according to the bank's own discretion, at least equivalent to that of debt securities assigned a 20% or 50% risk weight under the Standardised Approach for credit risk (Table 30 in Section 335 of this Decision);

3) long and short positions in debt securities issued by other legal persons which are classified, in accordance with Chapter IV, Part 1 of this Decision, in the class of exposures to banks, associated with credit quality step 2 or better in accordance with that Part, and subject to regulatory requirements comparable to those under this Decision.

Banks using the approach referred to in paragraph 1, items 1) or 2) of this Section shall adopt a methodology to assess whether securities meet the requirements in those provisions and shall submit this methodology to the National Bank of Serbia.

c) Capital requirements for securitisation positions

338. For the purpose of calculating capital requirements for specific position risk for securitisation positions in the trading book, the bank shall weight with the following its net positions calculated in accordance with Section 320, paragraphs 2 and 3 of this Decision:

1) for positions that would be subject to the Standardised Approach in the same bank's non-trading book, 8% of the risk weight under the Standardised Approach as set out in Chapter IV, Part 1, Subpart 4 of this Decision;

2) for positions that would be subject to the IRB Approach in the same bank's non-trading book, 8% of the risk weight under the IRB Approach as set out in Chapter IV, Part 1, Subpart 4 of this Decision.

339. The Supervisory Formula Method set out in Section 238 of this Decision may be used where a bank can produce estimates of PD, and where applicable exposure value and LGD as inputs into the supervisory formula in accordance with the requirements for the estimation of those

parameters under the IRB Approach in accordance with Chapter IV, Part 2 of this Decision.

A bank (other than an originator bank) may apply the Supervisory Formula Method only subject to prior consent of the National Bank of Serbia, which shall be granted where the bank fulfils the conditions in paragraph 1 of this Section.

Estimates of PD and LGD as input variables to the Supervisory Formula Method may alternatively also be determined by the bank based on estimates that are derived from an IRC Approach of a bank that has been granted consent of the National Bank of Serbia to use an internal model for specific risk of debt instruments. The latter alternative may be used only subject to prior consent of the National Bank of Serbia, which shall be granted if those estimates meet the quantitative requirements for the IRB Approach set out in Chapter IV, Part 2 of this Decision.

340. For securitisation positions that are subject to an additional risk weight in accordance with Section 209 of this Decision, banks shall apply 8% of the total risk weight.

In order to calculate its capital requirement for specific position risk, except for securitisation positions to which Section 341, paragraph 5 of this Decision shall apply, the bank shall sum its weighted positions calculated in accordance with this Subpart, regardless of their sign.

Where an originator bank of a traditional securitisation does not meet the conditions for significant risk transfer in Section 201 of this Decision, it shall include in the calculation of the capital requirement the securitised exposures instead of its securitisation positions.

Where an originator bank of a synthetic securitisation does not meet the conditions for significant risk transfer in Section 202 of this Decision, it shall include in the calculation of the capital requirements the securitised exposures, without taking into consideration the effects of credit protection obtained for the securitised portfolio.

d) Capital requirements for the correlation trading portfolio

341. Within the meaning of this Decision, the correlation trading portfolio shall consist of securitisation positions and n-th-to-default credit derivatives that meet all of the following criteria:

1) the positions are neither re-securitisation positions, nor options on a securitisation tranche, nor any other derivatives of securitisation exposures

that do not provide a pro-rata share in the proceeds of asecuritisation tranche;

2) all reference instruments are:

– single-name instruments, including single-name credit derivatives, for which a liquid two-way market exists,

– commonly-traded indices based on the instruments of those reference entities.

A two-way market, within the meaning of this Section, is deemed to exist where there are independent offers to buy and sell so that a price reasonably related to the last sales price or current bid and offer quotations can be determined within one day and settled at such price within a relatively short time conforming to trade custom in that market.

Positions which reference any of the following shall not be part of the correlation trading portfolio:

1) an underlying exposure that is capable of being assigned to the retail exposures class or to the class of exposures secured by mortgages on immovable property under the Standardised Approach for credit risk in a bank's non-trading book;

2) a claim on an SSPE, collateralised, directly or indirectly, by a position that would itself not be eligible for inclusion in the correlation trading portfolio in accordance with this paragraph and paragraph 1 of this Section.

A bank may include in the correlation trading portfolio positions which are neither securitisation positions nor n-th-to-default credit derivatives but which hedge other positions of that portfolio, provided that a liquid two-way market which meets the requirements set out in paragraph 2 of this Section exists for these instruments or their underlying exposures.

A bank shall determine the larger of the following amounts as the specific risk capital requirement for the correlation trading portfolio:

1) the total specific risk capital requirement that would apply just to the net long positions of the correlation trading portfolio, or

2) the total specific risk capital requirement that would apply just to the net short positions of the correlation trading portfolio.

e) General position risk of debt securities

342. In order to calculate the general position risk of debt securities, a bank may apply the maturity-based method or the duration-based method. A bank shall apply the selected method on a consistent basis.

Maturity-based method

343. A bank shall assign all net positions in debt securities to the appropriate maturity bands and zones on the basis of residual maturity (and/or on the basis of the period until the interest rate is next set in the case of securities with a variable interest rate) and a coupon (interest) rate, in accordance with the table below (Table 31):

Table 31

Zone	Maturity band		Weight (in %)
	Coupon of 3% or more	Coupon of less than 3%	
1	0 ≤ 1 month	0 ≤ 1 month	0.00
	> 1 ≤ 3 months	> 1 ≤ 3 months	0.20
	> 3 ≤ 6 months	> 3 ≤ 6 months	0.40
	> 6 ≤ 12 months	> 6 ≤ 12 months	0.70
2	> 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
3	> 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 years	8.00
		> 20 years	12.50

The bank shall multiply each position by the appropriate weight for the maturity band in question. The bank shall work out the sum of all weighted long positions and all weighted short positions in each maturity band.

The matched weighted position in a maturity band shall be the lower of the sum of weighted long positions or the sum of weighted short positions in a given maturity band. The unmatched weighted (long or short) position in a given maturity band shall be the residual amount, i.e. the difference between the two sums.

For each maturity zone, the bank shall compute the totals of all unmatched weighted long positions for the maturity bands and the totals of all unmatched weighted short positions for these bands. The matched weighted position for a maturity zone shall be the lower of the sum of all long unmatched weighted positions or the sum of all short unmatched weighted positions for the same zone. The remaining amount, i.e. the difference between the two sums, shall be the unmatched weighted (long or short) position for that zone.

After calculating the matched and unmatched position for each maturity zone, the bank shall match the unmatched weighted positions between zones 1 and 2. The remaining amount of the unmatched weighted position in zone 2 shall then be matched with the unmatched weighted position in zone 3. The bank may reverse the order of matching so as to calculate the matched weighted position between zones 2 and 3 before calculating that position between zones 1 and 2. The bank shall then match the remainder of the unmatched weighted positions between zones 1 and 3.

After the matching between zones, the residual unmatched weighted position between zones shall equal the sum of all residual unmatched positions in all zones.

344. Under the maturity-based method, the bank's capital requirement for general position risk of debt securities shall be calculated as the sum of:

– 10% of the sum of the matched weighted positions in all maturity bands,
– 40% of the matched weighted position in zone 1,
– 30% of the matched weighted position in zone 2,
– 30% of the matched weighted position in zone 3,
– 40% of the matched weighted positions between zones 1 and 2,
– 40% of the matched weighted positions between zones 2 and 3,
– 150% of the matched weighted positions between zones 1 and 3,
– 100% of the residual unmatched weighted position.

Duration-based method

345. Under the duration-based method, the bank shall calculate the yield to maturity of debt securities on the basis of their market value. In the case of floating-rate securities, the bank shall assume that the principal is due when the interest rate can next be set.

346. The bank shall allocate each debt security to the appropriate zone set out in the table below (Table 32):

Table 32

Zone	Modified duration (in years)	Assumed interest rate change (in %)
1	> 0.0 ≤ 1.0	1.00
2	> 1.0 ≤ 3.6	0.85
3	> 3.6	0.70

The bank shall calculate the duration-weighted position for each debt security by multiplying its market price by its modified duration and by the assumed interest-rate change in accordance with Table 32.

The bank shall calculate the modified duration of each debt security 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_{mod} = modified duration,
D = duration,
r = yield to maturity,
C_t = cash payment in time t,
M = total maturity,
t = time.

Appropriate corrections shall be made to the calculation of the modified duration for debt instruments which are subject to prepayment risk.

347. The bank shall calculate its duration-weighted long and its duration-weighted short positions within each zone. The matched duration-weighted position for a given zone shall be the lower of the sum of all duration-weighted long positions or the sum of all duration-weighted short positions in that zone. The unmatched duration-weighted (long or short) position in a given zone shall be the residual amount, i.e. the difference between the two sums.

After calculating the matched and unmatched duration-weighted position for each zone, the bank shall match the unmatched duration-weighted positions between zones 1 and 2. The remaining amount of the unmatched position in zone 2 shall then be matched with the unmatched duration-weighted position in zone 3. The bank may reverse the order of matching so as to calculate the matched position between zones 2 and 3 before calculating that position between zones 1 and 2. The bank shall then match the remainder of the unmatched duration-weighted positions between zones 1 and 3.

After the matching between zones, the residual unmatched duration-weighted position between zones shall equal the sum of all residual unmatched duration-weighted positions in all zones.

348. Under the duration-based method, the bank's capital requirement for general position risk of debt securities shall be calculated as the sum of:

– 2% of the matched duration-weighted position for each zone,
– 40% of the matched duration-weighted positions between zones 1 and 2,
– 40% of the matched duration-weighted positions between zones 2 and 3,
– 150% of the matched duration-weighted positions between zones 1 and 3,
– 100% of the residual unmatched duration-weighted position.

10. Position risk of equity instruments

349. The capital requirement for position risk of equity instruments shall equal the sum of capital requirements for specific and general position risk of these instruments.

The capital requirements for position risk of equity instruments shall be calculated for each country and each currency separately.

350. Equities shall be classified by countries in whose exchanges these equities are listed and/or traded. Financial derivatives shall be classified by countries in whose market the underlying equities are listed and/or traded.

351. The bank shall calculate its net (long or short) position in each equity.

The bank may net off its long and short positions in equities only when such equities are considered identical.

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

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

a) Specific position risk of equity instruments

352. The bank shall multiply its overall gross position in equities by 8% in order to calculate its capital requirement for specific position risk of equity instruments.

b) General position risk of equity instruments

353. The capital requirement for general position risk of equity instruments shall be the bank's overall net position in these instruments multiplied by 8%.

c) Stock indices

354. The positions in stock indices shall be included in the calculation of capital requirements for general and specific position risks of equity instruments.

The positions in stock indices shall be treated as positions in individual equities which are the constituent equities of the stock index. The positions in these equities may be netted against opposite positions in identical instruments.

Stock-index forwards or futures shall be treated as a combination of a long (short) position in equity instruments which are the constituent equities of the underlying stock index and a short (long) position in a notional debt instrument of maturity equivalent to that of the contract.

No later than 30 days before the start of application of the calculation referred to in paragraph 2 of this Section, the bank shall notify the National Bank of Serbia thereof.

By way of derogation from the provisions of this Section, when calculating capital requirements for specific position risk, the bank may exclude positions in stock indices which are exchange traded and broadly diversified, if these indices are not broken down into their underlying equities. These positions shall be included in the calculation of the capital requirement

for general position risk of equity instruments, individually for each country as a single position in the index. Positions in these stock indices shall be included in the calculation of the net position in Section 351, paragraph 4 of this Decision, but not in the calculation of the gross position in paragraph 3 of this Section.

11. Underwriting

355. Banks may calculate capital requirements for position risks arising from underwriting agreements (securities underwriting agreements), including agreements under which the bank has agreed to place the previously issued securities onto a new market.

The bank shall calculate the net position as the difference between the amount of total liabilities of the bank under the underwriting agreement and the part of the position which is subscribed or sub-underwritten by third parties, as applicable. The bank shall then reduce the resulting net position by the reduction factors in the table below (Table 33):

Table 33

Working day	Reduction factors for debt and equity instruments (specific risks)
Working day 0	100%
Working day 1	90%
Working day 2 or 3	75%
Working day 4	50%
Working day 5	25%
After working day 5	0%

Working day 0 (zero) in Table 33 shall be the day on which the bank becomes unconditionally committed to accepting a known quantity of securities at an agreed price.

Banks shall calculate the capital requirement for position risk under securities underwriting agreements by using the reduced net positions in accordance with the provisions of this Section.

Banks shall notify the National Bank of Serbia if they make use of the reduction of net positions laid down in this Section.

12. Treatment of trading book positions hedged by credit derivatives

356. For a trading book position hedged by a credit derivative, a bank shall calculate the capital requirement for specific position risk arising from this position and the position arising from the derivative.

Banks may exclude both positions referred to in paragraph 1 of this Section from the calculation of the capital requirement for specific position risk if the values of these positions always move in the opposite direction and in approximately the same amount, in the following situations:

– the positions refer to identical securities,
– the trading book position is hedged by a position in a TRS derivative, and there is an exact match between the reference obligation and the underlying trading book exposure, except between the maturity of those positions (which may be different).

A bank may reduce the exposure to the specific position risk by reducing by 80% of the amount of transferred risk the position with the higher capital requirement, while excluding the other position from the calculation of the capital requirement for specific position risk, if the following conditions are met:

– the positions always move in the opposite direction,
– there is an exact match between the reference obligation and the underlying exposure from the trading book,– the maturity of the reference obligation and the credit derivative are the same,– the key features of the credit derivative do not cause the price of the derivative to materially deviate from the price of the trading book position.

A bank may reduce the exposure to specific position risk by excluding the position with a lower capital requirement from the calculation of the capital requirement for specific position risk, in the following cases:

– the trading book position is hedged by a position in a TRS derivative, but there is a mismatch between the reference obligation and the underlying exposure from the trading book, where a) the reference obligation ranks pari passu with or is junior to the underlying exposure from the trading book, b) both share the same obligor, and c) have cross-default or cross-acceleration clauses,
– the positions refer to identical securities or the conditions set out in paragraph 3 of this Section have been met, but there is a currency or maturity mismatch between the credit protection position and the trading book position (currency mismatches should be included in the calculation of the capital requirement for foreign exchange risk in accordance Part 3 of this Chapter),

– the positions meet the conditions set out in paragraph 3 of this Section, but there is a mismatch between the reference obligation and the underlying exposure in the trading book, where it is agreed that this exposure may be transferred to the protection provider.

In the case of first-to-default credit derivatives and nth-to-default credit derivatives, the bank may calculate the capital requirement in accordance with the provisions of this Section if the following conditions are met:

1) where a bank uses credit protection for exposures to a number of reference entities under the terms that the first default shall terminate the contract and trigger payment of all associated obligations, the bank may equalise the capital requirement for specific risk with the capital requirement for specific risk for the reference entity to which the lowest specific risk weight applies according to table in Section 335 of this Decision (Table 30);

2) where the nth default triggers payment under the contract, and the bank has also obtained protection for defaults 1 to n-1, or when 1 to n-1 defaults have already occurred, the bank which is the protection beneficiary may reduce the capital requirement for specific risk in accordance with item 1) of this paragraph appropriately amended for n exposures.

13. Treatment of units in open-ended investment funds in the bank's trading book

357. The capital requirement for specific and general position risk of units in open-ended investment funds assigned to the trading book shall equal 32% of the position's value. The sum of capital requirements for position and foreign exchange risk for these positions shall equal 40% of their value, unless otherwise specified in Section 365, paragraphs 1 to 4, Section 366, and Section 395, paragraph 5, item 2) of this Decision.

Unless noted otherwise in this Decision, no netting is permitted between the positions referred to in paragraph 1 of this Section and other positions held by the bank.

358. A bank may calculate the capital requirement for position risk of units in open-ended investment funds in accordance with Sections 359 to 362 of this Decision, if the following conditions are met:

1) the fund is managed by a company supervised by:

– competent regulatory authority in the Republic of Serbia or an EU member state, as applicable,

– competent regulatory authority of a non-EU country if such supervision is in accordance with EU regulations and there is adequate

cooperation between the National Bank of Serbia and such regulatory authority;

2) the fund's prospectus or equivalent document containing all important elements of the prospectus shall include:

– the categories of assets the fund is authorised to invest in,

– where investment limits apply, the relative investment limits and the methodologies to calculate them,

– where leverage is prescribed and/or allowed, the maximum level of leverage or another similar indicator,

– policies to limit counterparty risk arising from investment in OTC derivatives and repurchase transactions and securities or commodities borrowing or lending transactions, where these investments and/or transactions are allowed;

3) the business of the fund shall be reported in half-yearly and annual reports to enable an assessment to be made of the assets and liabilities, income and operations over the reporting period;

4) the units of the fund are redeemable in cash, out of the fund's assets, on a daily basis at the request of the unit holder;

5) investments in the fund shall be segregated from the assets of the fund management company;

6) the bank shall carry out its own risk assessment of the fund.

359. Where the bank is aware of the structure of underlying investments of the open-ended investment fund on a daily basis, it shall treat units in these funds as positions in the securities underlying these investments and calculate the capital requirements for position risk in accordance with the provisions of this Part or, subject to prior consent of the National Bank of Serbia, by applying the internal model in accordance with Part 6 of this Chapter. In that case, netting shall be permitted between these and other positions of the bank, provided that the bank holds a sufficient quantity of units which can be disclosed as positions in the securities underlying this investment.

360. Banks may treat units in open-ended investment funds as notional positions in stock indices or fixed baskets of debt and equity securities and calculate the capital requirements for position risk in accordance with the provisions of this Part or, subject to prior consent of the National Bank of Serbia, using the internal model in accordance with Part 6 of this Chapter, if the following conditions are met:

– the purpose of the investment fund's investment policy is to replicate the composition and performance of a stock index or a fixed basket of debt and equity securities,

– the correlation between the daily movement in the price of the

investment unit and the stock index or basket of debt and equity securities shall be at least 0.9 over a minimum period of six months. Correlation shall mean the correlation coefficient between the daily return on the unit in the investment fund and the daily return on the stock index or fixed basket of equities or debt securities whose structure and performance the fund replicates.

361. Where the bank is not aware of the structure of underlying investments of the open-ended fund on a daily basis, it may calculate the capital requirements for position risk in accordance with the provisions of this Part.

When making the calculation within the meaning of paragraph 1 of this Section, the bank shall assume that the open-ended investment fund first invests to the maximum extent allowed in the securities attracting the highest capital requirement for position risk under this Part, and then continues making investments in descending order until the maximum total investment limit is reached as defined by the fund's prospectus or equivalent document. Banks shall take account of the maximum indirect exposure that could arise from the investment fund's investment by proportionally increasing the position in this fund up to the maximum exposure to the underlying investment items in accordance with the fund's prospectus or equivalent document.

If the capital requirement for position risk calculated in accordance with paragraph 2 of this Section exceeds the capital requirement for position risk calculated in accordance with Section 357 of this Decision, the bank shall apply the capital requirement for position risk calculated in accordance with that Section.

362. Banks may apply risk weights to units in open-ended investment funds calculated by a third party in accordance with Sections 359 to 361 of this Decision, if the calculation is validated by an external auditor and the third party is:

1) the depository of the fund which is a bank or another financial sector entity, provided that the fund exclusively invests in securities and deposits all securities at this depository;
2) the fund management company, for funds that do not meet the condition in indent one of this paragraph, provided that the company meets the criteria set out in Section 60, paragraph 2, item 1) of this Decision.

Part 3

Capital requirement for foreign exchange risk

363. The bank shall calculate the capital requirement for foreign exchange risk if the sum of the bank's overall net open foreign exchange position and the absolute value of its net open gold position exceeds 2% of the bank's equity calculated in accordance Chapter III of this Decision.

The capital requirement for foreign exchange risk shall be calculated as the sum of the bank's overall net open foreign exchange position and the absolute value of its net open gold position, multiplied by 8%.

For the purposes of this Decision, foreign exchange assets and liabilities shall include assets and liabilities denominated in a foreign currency and assets and liabilities denominated in dinars and indexed to a currency clause, where the currency clause is a contractual provision indexing the agreed amount in dinars to another currency.

The dinar equivalent value of assets and liabilities denominated in a foreign currency shall be calculated at the official middle exchange rate of the National Bank of Serbia as at the date of calculation of the bank's foreign exchange position. The dinar value of assets and liabilities in gold shall be determined according to the latest price of fine ounce of gold in the London Stock Exchange.

364. The bank shall calculate the net open foreign exchange position in each individual currency and the net open position in gold as the sum of the following elements:

– the net spot position, which is the difference between foreign exchange assets (less allowances for impairment) and foreign exchange liabilities in a given currency (including accrued interest), or the difference between assets and liabilities in gold;
– net forward position, which is the difference between all amounts to be received and all amounts to be paid under forward exchange (or gold) contracts, including currency (or gold) futures contracts and the notional amount of currency swaps not included in the spot position;
– irrevocable guarantees, uncovered letters of credit and similar off-balance sheet items under which the bank is certain to make a payment and are likely to be irrecoverable;
– the net delta (or delta-based) equivalent of all foreign-currency and gold options;
– the market value of options that are neither currency nor gold options, but whose underlying is denominated in a foreign currency.

The delta equivalent of options referred to in paragraph 1, indent four of this Section shall be that of the exchange where the option is traded. For OTC options, or where delta is not available from the exchange concerned, the bank may calculate delta itself using an appropriate internal model, subject to prior consent of the National Bank of Serbia.

The National Bank of Serbia shall grant prior consent referred to in paragraph 2 of this Section if the model appropriately estimates the percentage rate of change of the option's or warrant's value with respect to incremental (slight) changes in the market price of the underlying. The bank may include in the net open foreign exchange position in a specific currency or in the net open position in gold, as applicable, the net future income/expenses not yet accrued but already fully hedged by forward exchange or similar contracts, if it does so consistently in accordance with the IFRS/IAS.

365. The bank shall have a net long position in a particular currency or in gold when the sum of all elements listed in Section 364 of this Decision in that currency or in gold is positive, and where it is negative – the bank shall have a net short foreign exchange position in that currency or gold.

The total long foreign exchange position of the bank shall be the sum of all its net long foreign exchange positions in individual currencies.

The total short foreign exchange position of the bank shall be the sum of all its net short foreign exchange positions in individual currencies.

The total net open foreign exchange position of the bank shall be the greater of the absolute value of its total long or total short foreign exchange position.

A bank may use the net present value when calculating the net open position in each currency and in gold provided that the bank applies this approach consistently.

For the purpose of calculating the open foreign exchange position, the bank may break down net positions in composite currencies into the component currencies, according to the structure of the composite currency.

Any positions which a bank has taken in order to hedge the capital adequacy ratios referred to in Section 3 of this Decision against the adverse effect of the exchange rate may, subject to consent of the National Bank of Serbia, be excluded from the calculation of the net open foreign exchange position. In order to be excluded from the calculation, such positions shall be

of a non-trading nature. Any variation of the terms of their exclusion shall be subject to consent of the National Bank of Serbia. The same treatment subject to the same conditions may be applied to positions which a bank has taken which relate to items that are already deducted in the calculation of capital.

Banks shall adequately reflect other risks associated with options, apart from the delta risk, in the calculation of the capital requirement for foreign exchange risk.

1. Foreign exchange risk of positions in open-ended investment funds

366. For the purpose of calculating the net open foreign exchange position, the bank shall include positions relating to investments in investment units of investment funds, in accordance with their currency structure.

Banks may apply risk weights to units in open-ended investment funds calculated by a third party, if the calculation is validated by an external auditor and the third party is:

1) the depository of the fund which is a bank or another financial sector entity, provided that the fund exclusively invests in securities and deposits all securities at this depository;
2) the fund management company, for funds that do not meet the condition in indent one of this paragraph, provided that the company meets the criteria set out in Section 60, paragraph 2, item 1) of this Decision.

Where a bank is not aware of the currency structure of an investment fund, it shall assume that the fund invests up to the maximum extent allowed under the open-ended investment fund’s prospectus or equivalent document in foreign exchange positions. The bank shall take account of the maximum indirect exposure that could result from open-ended investment fund’s investment by proportionally increasing its position in the fund up to the maximum exposure to the assumed investment under the fund’s prospectus or equivalent document. The notional foreign exchange position of the open-ended investment fund shall be treated as a separate currency, subject to the addition of the total long position to the total long foreign exchange position and the total short position to the total short foreign exchange position where the direction of the open-ended investment fund’s investment is known to the bank. There shall be no netting allowed between such positions prior to the calculation.

2. Closely correlated currencies

367. Banks may calculate lower capital requirements for foreign exchange risk against positions in closely correlated currencies.

Closely correlated currencies shall be the currencies for which the likelihood of a loss (calculated on the basis of daily exchange-rate data for the preceding three or five years) occurring on equal and opposite positions in such currencies over the following ten working days, which is 4% or less of the value of the matched position in question, valued in terms of the reporting currency, has a probability of at least 99%, when an observation period of three years is used, or 95%, when an observation period of five years is used.

The capital requirement on the matched position in two closely correlated currencies shall be 4% of the value of the matched position.

In calculating the capital requirements for foreign exchange risk, the bank may disregard positions in currencies, which are subject to intergovernmental agreements to limit the variation of one currency relative to another. Banks shall calculate their matched positions in such currencies and subject them to a capital requirement no lower than 50% of the maximum permissible variation laid down in the intergovernmental agreement in question.

The capital requirement on the matched positions in currencies of EU member states participating in the second stage of the economic and monetary union may be calculated as 2.4% of the value of such matched positions.

Only the unmatched position between currencies referred to in this Section shall be incorporated into the overall net open foreign exchange position in accordance with Section 365 of this Decision.

3. Foreign exchange risk ratio

368. The foreign exchange risk ratio is the ratio between the total net open foreign exchange position (including the absolute value of the net open position in gold) and the bank’s capital calculated in accordance with the provisions of Chapter III of this Decision.

Regardless of whether it applies the internal models from Part 6 of this Chapter, the bank shall maintain the foreign exchange risk ratio at no more than 20% at the end of each working day.

If a bank’s foreign exchange risk ratio exceeds 20% on two

consecutive working days, the bank shall notify the National Bank of Serbia thereof on the next working day at the latest.

Part 4

Capital requirement for commodities risk

369. The bank shall calculate the capital requirement for commodities risk using one of the following approaches: Simplified Approach, Maturity Ladder Approach or Extended Maturity Ladder Approach.

The bank shall apply the same approach for each individual type of commodity within one reporting period, but may apply different approaches for different commodities.

Ancillary commodities business

370. To calculate the capital requirements for commodities risk for the next year, a bank with ancillary agricultural commodities business may use the physical commodity stock on the last day of the current year where all of the following conditions are met:

1) at any time of the year it holds capital for this risk which is not lower than the average capital requirement for that risk estimated on a conservative basis for the coming year;
2) a bank estimates on a conservative basis the expected volatility calculated in accordance with item 1) of this Section;
3) the average capital requirement for this risk does not exceed 5% of the bank's capital calculated in accordance with Chapter III of this Decision, or RSD 120,000,000 on the day of capital requirement calculation (depending on which is higher), and taking into account the volatility estimated in accordance with item 2) of this Section, the highest expected amount of capital requirements for that risk does not exceed 6.5% of the bank's capital;
4) a bank monitors on an ongoing basis whether the estimates carried out under items 1) and 2) of this Section reflect the reality.

A bank shall notify the National Bank of Serbia about the change in calculation under this paragraph.

Positions in commodities

371. A bank shall express each position in commodities or commodity derivatives in terms of standard units of measurement. The spot price in each

commodity shall be expressed in the dinar equivalent by applying the official middle exchange rate of the National Bank of Serbia on the calculation day.

A bank shall calculate the capital requirement for market risks in respect of positions in gold and gold financial derivatives in accordance with rules for the calculation of the foreign exchange risk capital requirement as prescribed by Part 3 of this Chapter, or by applying internal models in accordance with Part 6 of this Chapter, as applicable.

A bank may exclude from the capital requirements calculation for commodities risk the commodities financing positions; it shall calculate for them other capital requirements in accordance with this Decision.

A bank shall include all positions that give rise to the position risk or foreign exchange risk (e.g. positions in financial derivatives relating to commodities, positions arising from commodities repurchase transactions and commodities lending or borrowing transactions) which are not included in the calculation of capital requirement for commodities risk in accordance with this Part in the calculation of capital requirements for general position risk and foreign exchange risk as prescribed by Parts 2 and 3 of this Chapter.

If a bank has a short position in a commodity which falls due before the long position in the same commodity, it shall take into account the possibility of a shortage of liquidity in relevant markets.

For the purposes of calculating positions in commodities, the following positions may be regarded as positions in the same commodity:

– positions in different sub-categories of commodities in cases where the sub-categories are deliverable against each other,
– positions in similar commodities – if they are close substitutes and if a minimum correlation of 0.9 between daily price movements can be clearly established over a minimum period of one year.

3. Financial derivatives relating to commodities and other financial instruments in the trading book

372. A long (short) position in the commodity futures or forward contracts shall be treated as a combination of a long (short) position in the underlying commodity expressed in standard units of measurement for that commodity and a short (long) position in a notional debt instrument with a maturity date equal to that of the delivery/settlement date.

373. Position in a commodity swap shall be treated as a long position in the commodity if a bank pays a fixed price and receives a floating price

based on current market values, or a short position in the commodity if the bank receives a fixed price and pays a floating price based on current market values.

If a bank uses the Maturity Ladder Approach, the commodity swap shall be treated as a series of positions equal to the notional amount of the contract, with each position corresponding with one payment on the swap and slotted into the maturity ladder set out in Section 377 of this Decision (Table 34).

Commodity swaps relating to different types of commodities shall be included in the table referred to in paragraph 2 of this Section in accordance with the underlying commodity.

Options and warrants on commodities or on commodity derivatives shall be treated as if they were positions equal in value to the amount of the underlying to which the option refers, multiplied by its delta. The latter positions may be netted off against any offsetting positions in the identical underlying commodity or commodity derivative. The delta used shall be that of the exchange concerned. Exceptionally, for OTC options or where delta is not available from the exchange concerned, a bank may calculate delta itself using an appropriate internal model, with prior consent of the National Bank of Serbia.

The National Bank of Serbia shall grant prior consent to a bank to use the bank’s internal model for calculation of the option delta and/or warrant on the commodities if, based on the submitted documentation and model specification, it ascertains that the model appropriately estimates the rate of change of the option’s or warrant’s value with respect to small changes in the market price of the underlying.

A bank shall adequately reflect other risks associated with options in the calculation of capital requirement for commodities risk.

374. Trading book positions in commodities repurchase transactions or commodities lending transactions shall be reported as the combination of a long position in the underlying commodities and a notional short position in a government bond with matching maturity whose coupon rate is equal to yield.

Trading book positions in commodities reverse repurchase transactions or commodities borrowing transactions shall be reported as notional long positions in government bonds with matching maturity and coupon rates equal to yield.

A bank shall include commodities in the calculation of capital requirements for commodities risk in the following cases:

1) where a bank transfers the ownership of commodities in a repurchase transaction;
2) where a bank is the lender of commodities in a commodities lending transaction.

Options on commodities and on commodity financial derivatives shall be treated as established in Part 5 of this Chapter.

Warrants relating to commodities shall be treated in the same way as the options referred to in paragraph 4 of this Section.

4. Simplified Approach

375. When for the purposes of calculating the capital requirement for commodities risk the Simplified Approach is used, a bank shall calculate net and gross positions for each individual commodity.

Net position in a commodity shall be the absolute value of the difference between long and short positions in that commodity.

Gross position in a commodity shall be the sum of the absolute values of long and short positions in that commodity.

376. The capital requirement for each commodity shall be calculated as the sum of:

– 15% of net position multiplied by the spot price for commodities and
– 3% of gross position multiplied by the spot price for commodities.

The capital requirement for commodities risk under this approach shall be equal to the sum of capital requirements for each commodity calculated in accordance with paragraph 1 of this Section.

5. Maturity Ladder Approach

377. When for the purposes of calculating capital requirement for commodities risk the bank applies the Maturity Ladder Approach, it shall assign all positions in that commodity to appropriate maturity bands in accordance with Table 34:

Table 34

Maturity band	Spread rate
0 ≤ 1 month	1.5%
>1 ≤ 3 months	1.5%
>3 ≤ 6 months	1.5%
>6 ≤ 12 months	1.5%
>1 ≤ 2 years	1.5%
> 2 ≤ 3 years	1.5%
> 3 years	1.5%

A bank shall assign all positions in stocks of commodities into the maturity band up to one month determined in the Table under this Section.

378. A bank may conduct the netting of positions in the same commodities and assign them in the net amount to the appropriate maturity bands in accordance with Table from Section 377 of this Decision (Table 34) if one of the following conditions is met:

– these positions mature on the same date
– positions are maturing within 10 days of each other if the contracts are traded on markets which have daily delivery dates.

379. A bank shall calculate the sum of all long and the sum of all short positions in each maturity band determined in Table from Section 377 of this Decision (Table 34). The matched position in a maturity band shall be the sum of long positions which are matched by the sum of short positions in that maturity band. The residual amount (the difference between those two values) shall be the (long or short) unmatched position for the same maturity band and shall be matched by the unmatched position for a maturity band further out.

The amount of the unmatched long (short) position for a given maturity band that is matched by the unmatched short (long) position for the maturity band further out shall be the matched position between the two maturity bands. The residual amount shall be the long or short unmatched position between the two maturity bands.

380. The capital requirement for each commodity shall be the sum of the following:

– the sum of absolute amounts of matched long and short positions, multiplied by the appropriate spread rate in accordance with Table from Section 377 of this Decision (Table 34) for each maturity band and the spot price for commodities,
– the absolute amount of matched positions between two maturity

bands for each maturity band into which an unmatched position is carried forward, multiplied by 0.6%, which is the carry rate, and by the spot price for commodities,

– the absolute amount of the residual unmatched position, multiplied by 15%, which is the outright rate, and by the spot price for commodities.

The capital requirement for commodities risk in accordance with the Maturity Ladder Approach shall be equal to the sum of capital requirements for each commodity calculated in accordance with paragraph 1 of this Section.

6. Extended Maturity Ladder Approach

381. A bank may apply the Extended Maturity Ladder Approach if the following conditions are met:

1) a bank's commodity portfolio is materially significant;
2) a bank's commodity portfolio is sufficiently diversified;
3) a bank has still not developed its internal model and/or obtained the consent of the National Bank of Serbia for its use for the purpose of calculating capital requirements for commodities risk.

A bank applying the Extended Maturity Ladder Approach shall calculate the capital requirement for each commodity as described in Section 380, paragraph 1 of this Decision; instead of the rates specified in indents one to three of that paragraph, the minimum rates shall apply (spread rates, carry rates and outright rates) as specified in the table below:

Table 35

Rate (in %)	Precious metals except for gold	Base metals	Agricultural products	Other, including energy products
Spread rate	1.0	1.2	1.5	1.5
Carry rate	0.3	0.5	0.6	0.6
Outright rate	8	10	12	15

The capital requirement for commodities risk in accordance with the Extended Maturity Ladder Approach shall equal the sum of capital requirements for each commodity calculated in accordance with paragraph 2 of this Section.

A bank shall inform the National Bank of Serbia about the application of the Extended Maturity Ladder Approach.

Along with the notification under paragraph 4 of this Section, a

bank shall submit to the National Bank of Serbia the documentation proving that it took the steps to implement the internal model for calculation of the capital requirement for commodities risk.

Part 5

Treatment of options

382. For the purposes of calculating the capital requirement for position risk, the positions in trading book options shall include debt securities and equities options, stock indices, forwards, futures, swaps and interest rate options.

For the purposes of calculating the capital requirement for foreign exchange risk, trading book and non-trading book positions shall include currency options, gold options and options on foreign currency forwards, futures, swaps and gold.

For the purposes of calculating the capital requirement for commodities risk, trading book or non-trading book positions shall include commodity options, options on commodity forwards, futures and swaps.

Paragraphs 1 to 3 of this Section shall also apply to embedded options, securities similar to options – warrants, cap options, floor options, simultaneous purchase (put options) and sale (call options) – the collar, as well as all other financial instruments with non-linear risk.

383. For the calculation of capital requirements for position risk, foreign exchange risk and commodities risk, a bank shall use the simplified method only when purchasing options. When a bank has a position in written options, it shall calculate capital requirements for these risks by applying the delta plus method. Exceptionally, if the bank has a small position in a written option which is completely hedged by the identical position in a purchased option, they shall be excluded from the calculation of capital requirements for position risks, foreign exchange risk and commodities risk. The size of the position shall be viewed individually for each risk.

By way of derogation from paragraph 1 of this Section, capital requirements for position risk, foreign exchange risk and commodities risk from positions in options may be calculated using the internal models in accordance with Section 390 of this Decision.

The capital requirement for position risk, foreign exchange risk and commodities risk equals the amount of the requirement calculated according to methods set out in paragraphs 1 or 2 of this Section.

1. Simplified method

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

– the market value of the underlying security, commodity or foreign currency, where in the case of securities options the market value is multiplied by the sum of specific and general risk weights, for currency options this value is multiplied by 8% and by 15% in the case of commodity options,
– the market value of the option.

For positions which are a combination of purchased put options and long positions in the underlying, or for positions which are a combination of purchased call options and short positions in the underlying, the capital requirement shall be the market value of the underlying multiplied by adequate weights less the amount for which the option is in the money. For securities options the market value of the underlying shall be multiplied by the sum of specific and general risk weights, for currency options it shall be multiplied by 8% and for commodity options by 15%.

2. Delta plus method

385. When calculating capital requirements for position, foreign exchange and commodities risk, a bank shall treat positions in options as a combination of notional long and short positions, and/or break them down to positions in the underlying securities, commodities or foreign currencies. Positions in these securities, commodities or foreign currencies multiplied by the option delta coefficient shall be the delta weighted value of the option.

The option delta (δ) is a percentage of a change in an option price arising from a small (incremental) price change of the underlying instrument.

δ = δ of option price/ δ of price of the underlying instrument,

where:

δ = the first partial derivative of the function of the option price with respect to the price of the underlying instrument.

For exchange-traded options a bank shall use the delta coefficient calculated by that exchange. For OTC options, a bank shall use delta coefficient calculated by using its own internal model in accordance with Section 390 of this Decision.

By way of derogation from paragraph 3 of this Section, the

National Bank of Serbia may define delta coefficients for certain instruments.

386. The delta-weighted value of the position in a security, commodity of foreign currency shall be included in the calculation of capital requirements for position, foreign exchange and commodities risk as follows:

– purchased call options as long positions;
– written call options as short positions;
– purchased put options as short positions;
– written put options as long positions.

The delta value of the position in a security, commodity of foreign currency may be offset against the opposite position in identical security, commodity or foreign currency. Net positions calculated in this manner shall be included in the calculation of capital requirements for position, commodity and foreign currency risk.

387. In addition to the capital requirement referred to in Section 385 of this Decision, a bank shall calculate additional capital requirements for the gamma risk and vega risk on options.

Within the meaning of this Decision, gamma risk (γ) is the sensitivity parameter that expresses the rate of change of the option's delta for small changes in the price of underlying securities, commodities or foreign currency, and vega risk (Λ) is a sensitivity parameter that measures the sensitivity of option price to small changes in the volatility of prices of underlying securities, commodities or foreign currency.

For exchange-traded options a bank shall use gamma and vega coefficients calculated by that exchange. For OTC options, a bank shall use the coefficients calculated by using the internal model in accordance with Section 390 of this Decision.

In order to calculate capital requirements for gamma and vega risk of the overall option positions, individual option positions shall be grouped by risk categories. A bank may offset gamma and vega effects of individual positions only within an individual risk category, which shall be the following:

– each individual currency pair and gold – for foreign currency or gold options;
– each national market – for options on equity instruments (where an equity instrument is listed at several national markets, the reference market shall be determined according to the country where the issuer has its registered office);
– each maturity band (according to the maturity-based approach), or

each zone (according to the duration-based approach) – for options on debt securities and interest rate options;

– each commodity – for commodity options.

a) Capital requirement for gamma risk of options

388. For the purposes of calculating the capital requirement for gamma risk of the overall option positions, a bank shall calculate the gamma effect for each individual option by approximating the option price with a Taylor series:

$$\text{gamma effect} = \frac{1}{2}\text{gamma} \times N \times (\Delta B)^2,$$

where:

gamma = the second partial derivative of the function of the option price with respect to the price of the underlying instrument,
N = number of the underlying instruments,
Δ**B** = variation of the underlying instrument price.

The variation of the underlying instrument price (Δ**B**) shall be calculated as follows:

1) for options on debt securities and interest rates – the market value of the underlying instrument shall be multiplied by the appropriate weights laid down in Table from Section 343 of this Decision (Table 31) or with the appropriate interest rate change laid down in Section 346 of this Decision (Table 32), depending on the approach used by the bank;

2) for options on equity instruments – the market value of the underlying instrument shall be multiplied by 8%;

3) for options on foreign currency or gold options – the market value of the underlying instrument shall be multiplied by 8%;

4) for commodity options – the market value of the underlying commodity shall be multiplied by 15%.

For the purposes of calculating the capital requirement for gamma risk of the overall option positions, individual gamma effects shall be summed up for each risk category. Thus obtained net gamma effects for each individual risk category may be positive or negative. The sum of absolute values of all negative net gamma effects by each risk category represents the capital requirement for gamma risk of the overall option position.

b) Capital requirement for vega risk of options

389. For the purposes of calculating the capital requirement for vega risk of the overall option positions, a bank shall calculate the vega effect for each individual option by approximating the option price with a Taylor series:

$$\text{Vega effect} = \text{vega} \times N \times \frac{\text{volatility}}{4},$$

where:

vega = the first partial derivative of the function of option price with respect to the price volatility of the underlying instrument,
N = number of the underlying instruments.

For the purposes of calculating vega effects, the assumed change in volatility is one quarter of current volatility (+/-25%).

For the purposes of calculating the capital requirement for vega risk of the overall option positions, individual vega effects shall be summed up for each risk category. Thus obtained net vega effects for each individual risk category may be positive or negative. The sum of absolute values of all negative net vega effects by each risk category represents the capital requirement for vega risk of the overall option position.

c) Internal models for the calculation of delta, gamma and vega coefficients

390. For the purposes of calculating the delta, gamma and vega coefficients, a bank may use its own internal model subject to prior consent of the National Bank of Serbia. The consent shall be granted if a bank demonstrates that it has established a reliable and adequate risk management system which is implemented with integrity and that the qualitative conditions referred to in Section 394 of this Decision have been met.

For the purposes of obtaining the consent referred to in paragraph 1 of this Section, a bank shall submit to the National Bank of Serbia the following:

– general information on the internal option pricing model and the internal act regulating the option trading strategy, mitigation techniques for option related risks, as well as the planned option trading volume,
– documentation verifying compliance with the qualitative conditions referred to in Section 394 of this Decision,
– specification and verification of assumptions used in the internal option pricing model,
– description of the method for assessment of the parameters of the internal option pricing model.

A bank that has been granted the consent specified in paragraph

1 of this Section shall use the internal option pricing model on an ongoing basis.

If a bank ceases to comply with the conditions referred to in paragraph 1 of this Section, it shall promptly notify the National Bank of Serbia and either submit a plan for a timely return to compliance or demonstrate that the effect of non-compliance is immaterial. If a bank has submitted the plan under this paragraph, it shall notify the National Bank of Serbia of its compliance with the specified conditions within the planned timeframe.

The National Bank of Serbia may withdraw the consent specified in paragraph 1 of this Section if it establishes that a bank ceased to comply with the conditions set out in this Section and the effects of non-compliance are material, if it failed to submit the plan specified in paragraph 4 of this Section, if the submitted plan is inadequate or if its actions are not in compliance with the plan.

Part 6

Internal models approach

1. Consent to use internal models

391. To calculate capital requirements for market risks, a bank may use an internal models approach or a combination of this approach with the approaches under Parts 2 to 5 of this Chapter, only with prior consent of the National Bank of Serbia.

The National Bank of Serbia shall prescribe by guidelines the manner of implementing the provisions of this Section relating to the submission and assessment of the documentation.

392. A bank may use an internal models approach or a combination of this approach with the approaches under Parts 2 to 5 of this Chapter for each of the following types of market risk:

1) general risk of equity instruments;
2) specific risk of equity instruments;
3) general risk of debt instruments;
4) specific risk of debt instruments;
5) foreign exchange risk;
6) commodities risk.

393. A bank may use an internal models approach for the calculation of capital requirements for position risk, foreign exchange risk and commodities risk or a combination of the internal models approach and approaches set out in Parts 2 to 5 of this Chapter if it meets the following conditions:

– qualitative conditions established in Sections 394 to 396 of this Decision,
– quantitative conditions established in Section 397 of this Decision,
– additional requirements set out in Section 398 of this Decision if it intends to use the internal models approach for specific position risk,
– internal model verification and back testing are conducted in accordance with Sections 400 and 401 of this Decision.

A bank which did not obtain prior consent of the National Bank of Serbia to use the internal models approach for a specific type of market risk shall calculate the capital requirement for such type of risk in accordance with the approaches specified in Parts 2 to 5 of this Chapter.

A bank shall apply for prior consent of the National Bank of Serbia for the application of the internal model for each type of market risk separately.

The National Bank of Serbia shall grant prior consent to a bank to use the internal models approach for a specific type of market risk only if it determines that the capital requirement calculated based on the internal model covers a significant portion of exposure to that type of risk.

In the case of a materially significant change in the manner of application, or in the case of extension of the model for whose use it previously obtained the consent of the National Bank of Serbia, particularly the inclusion of additional types of risks, a bank shall re-submit to the National Bank of Serbia the application for consent to the model use.

For the first calculation of the stressed VaR parameter in accordance with Section 397, paragraph 3 of this Decision, a bank shall submit to the National Bank of Serbia the application for granting prior consent.

A bank shall inform the National Bank of Serbia of all subsequent changes to the model for which it obtained prior consent.

a) Qualitative conditions

394. A bank that wishes to use an internal models approach in accordance with Section 391 of this Decision shall establish a reliable and

adequate risk management system and implement it with integrity, and shall meet the following general qualitative conditions:

1) the internal risk-measurement model is closely integrated into the daily risk management process of the bank and serves as the basis for reporting existing and potential risk exposures to the executive board;

2) a bank has set up a special organisational unit for risk management which is independent of the organisational unit in charge of risk assumption, which reports directly to the executive board, in particular:

– for designing and implementing the part of the bank's risk management system related to market risks,

– for producing and analysing daily reports on the output of the internal risk-measurement model and on the appropriate measures to be taken in terms of trading limits,

– for developing and implementing the adequate internal model,

– for conducting the initial and on-going validation of the internal model;

3) the bank's board of directors and executive board are actively involved in the risk-control process. Daily reports produced by the risk management unit referred to in item 2) of this paragraph are analysed by the management level which has sufficient authority to enforce both limitations and reductions of positions taken by employees in charge of contracting market transactions, as well as of the bank's overall exposure to market risks;

4) a bank has sufficient number of professional staff skilled in the use of sophisticated models for arranging market transactions, managing market risks, transaction bookkeeping and auditing;

5) a bank has established procedures for monitoring and ensuring compliance with internal acts and controls concerning the overall operation of the risk-measurement system;

6) a bank has documentation regarding the reliability and accuracy of the applied internal risk-measuring model;

7) a bank conducts stress-testing on an ongoing basis, including reverse stress-testing, and the results of these tests are reviewed by the executive board of the bank and are reflected in the bank's trading limits and internal acts;

8) the organisational unit from item 2) of this paragraph conducts back-testing of the internal risk-measuring model on an ongoing basis;

9) at least once a year, a bank shall conduct a review of its overall market risk management process, which includes both the activities of the business trading unit and the unit specified in item 2) of this paragraph, in particular the review of the following:

– the adequacy of the documentation on the risk-management process,

– the process and the organisation of the unit specified in item 2) of this paragraph,

– integration of the results of the internal market risk-measuring model into daily risk-management and the integrity of the management reporting system,

– the processes employed by a bank for approving risk-pricing models and valuations systems that are used by employees of the organisational unit responsible for business trading, the unit referred to in item 2) of this paragraph, and the back office unit,

– the comprehensiveness of the market risk measurement models and the appropriateness of 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 procedures a bank employs to evaluate the consistency, timeliness and reliability of data sources used in the internal model, including the independence of such data sources,

– the procedures a bank uses to review the back-testing that is conducted to assess the model.

The stress-testing process referred to in paragraph 1, item 7) of this Section shall address the illiquidity of markets in stressed market conditions, concentration risk, one-way markets, event and jump-to-default risks, non-linearity of products, deep out-of-the-money positions, positions subject to the gapping of prices and other risks that may not be captured appropriately in the internal model. Stress-testing scenarios conducted by a bank shall reflect the nature of the portfolio and the time it could take the bank to hedge out or manage risks under severe market conditions.

395. A bank shall improve the internal model in accordance with the model's market development and good business practice.

Any internal model used to calculate capital requirements for position risk, foreign exchange risk, commodities risk, as well as any internal model for correlation trading shall meet the following requirements:

1) the model shall capture all material position risks;

2) it shall capture a sufficient number of risk factors, depending on activities of the bank's trading in different markets; if the risk factors are incorporated into the bank's pricing model, but not into the risk measurement model, a bank shall justify such an omission to the satisfaction of the National Bank of Serbia.

The risk management model shall capture non-linearities for options relative to market risk factors, as well as the correlation risk and the basis risk.

In the event that a bank uses approximations of risk factors, it shall demonstrate that these approximations reflect actual exposures.

A bank shall cover by the internal model particularly the following risk factors:

1) for interest rate risk: a set of risk factors corresponding to interest rates in each currency in which a bank has interest rate sensitive on- or off-balance sheet positions. The bank shall model the yield curves using one of the generally accepted approaches and for material exposures to interest rate risk in the major currencies and markets, the yield curve shall be divided into a minimum of six maturity segments, to capture the variations of volatility of rates along the yield curve;

2) for foreign exchange risk: risk factors corresponding to gold and to the individual foreign currencies in which the bank's positions are denominated and actual foreign exchange positions in investment units. A bank may rely on third party reporting of the investment fund's currency structure provided that the correctness of this report is adequately ensured, and if it cannot determine this structure, the bank shall treat these positions in accordance with Section 366, paragraph 3 of this Decision;

3) for equity risk: one risk factor at least for each of the national equity markets in which the bank holds significant positions;

4) for commodities risk: a separate risk factor at least for each commodity in which a bank holds significant positions. The internal model shall also capture the risk of less than perfectly correlated movements between similar commodities and the exposure to changes in forward prices arising from maturity mismatches. The model shall also take account of market characteristics, notably delivery dates and market limitations provided to employees authorised for transactions;

5) conservatively assessed risk factor for less liquid positions and positions with limited price transparency under realistic market scenarios. In addition, the internal model shall meet minimum data standards. Proxies shall be appropriately conservative and shall be used only where available data are insufficient or are not reflective of the true volatility of the position or portfolio.

396. A bank may use empirical correlations within risk categories and across risk categories if its system for measuring correlations is reliable and comprehensive.

b) Quantitative conditions

397. A bank that wishes to use an internal models approach in accordance with Section 391 of this Decision shall demonstrate that the

calculation of the VaR parameter is subject to the following quantitative conditions:

– at least daily calculation of the VaR parameter,
– a one-tailed confidence interval of 99%,
– a 10-day equivalent holding period (when calculating the VaR parameter a bank shall use factors that reflect price volatility over a 10-day period),
– an effective historical observation period of at least one year is used for the VaR calculation, except where a shorter observation period is justified by a significant upsurge in price volatility,
– one-monthly data set updates.

A bank shall use the values of VaR parameters calculated for shorter holding periods adjusted to the 10-day period by applying the appropriate methodology periodically reviewed by a bank.

In addition to the compliance with conditions under paragraph 1 of this Section, a bank shall calculate at least once a week the stressed VaR parameter of the existing bank portfolio, in accordance with the requirements under paragraph 1 of this Section; it shall adjust the input variables into the VaR model with historical data from the period of a significant financial crisis in the continuous duration of 12 months which is relevant for the bank's portfolio.

A bank shall at least once a year review the adequacy of the selected historical data and inform the National Bank of Serbia of the results of such review.

c) Additional requirements for specific position risk

398. Where a bank intends to use the internal models approach for specific position risk associated with traded debt and equity positions, it shall ensure that the internal model meets the following requirements:

– it explains the historical price variation in the portfolio,
– it captures concentration in terms of magnitude and changes of composition of the portfolio,
– it operates in an adverse environment,
– it is validated through back-testing aimed at assessing whether specific position risk is being accurately captured,
– it captures name-related basis risk, that is, the internal model is sensitive to material idiosyncratic differences between similar positions,
– it captures event risk.

In addition to the requirements under paragraph 1 of this Section, a bank shall incorporate into the internal capital assessment the impact of the risk event, if it is exposed to such risk and the risk is not covered by the VaR parameter as it lies outside of the 10-day holding period and a 99% confidence interval.

d) Exclusions from specific risk models

399. A bank may exclude from the calculation of its specific risk capital requirement using an internal model those positions for which it fulfils capital requirements for specific risk in accordance with Section 329, paragraph 4, item 5) or Sections 338 to 340 of this Decision, with the exception of those positions that are subject to the approach set out in Section 409 of this Decision.

A bank may choose not to capture default and migration risks for traded debt instruments in its internal model for specific risk, if it calculates capital requirements for these risks in accordance with Subpart 3 of this Part.

e) Internal model validation and back-testing

400. The purpose of the internal model validation is to ensure that it is reliable and that it captures all material risks.

A bank shall ensure that the internal model validation process is performed by appropriately skilled and experienced bank employees who did not participate in the design and development of this model.

The validation shall be conducted when the internal model is initially developed and when any significant changes are made to it. The validation shall also be conducted on a periodic basis, especially where there have been any significant structural changes in the market or changes to the composition of the portfolio.

Internal model validation shall include at least the following:

– tests to demonstrate that any assumptions made within the internal model are appropriate and that their inclusion in the model ensures accurate risk assessment (they do not underestimate or overestimate the risk),
– back-testing which corresponds to the structure and risks of the portfolio,
– the use of hypothetical portfolios to verify that the internal model accounts for potential structural changes to the portfolio (e.g. basis risk and concentration risk).

401. For the purposes of continuous monitoring of the internal model's accuracy, a bank shall conduct back-testing, which has to provide for each business day a comparison of the one-day VaR parameter by the bank's model for the portfolio's end-of-day positions to the one-day change of the portfolio's value by the end of the previous or subsequent business day, as applicable.

A bank shall perform back-testing on both actual changes (excluding fees, commissions and net interest income) and hypothetical changes in the portfolio. Back testing on hypothetical changes in the portfolio shall be conducted by comparing the portfolio's end-of-day value and its value at the end of the subsequent day, assuming its structure is unchanged.

2. Calculation for capital requirement

402. The capital requirement for position risk, foreign exchange and commodities risk calculated by using the internal models approach shall be the sum of:

1) the higher of the following two values:

– the VaR parameter calculated by the end of the previous business day, in accordance with Section 397, paragraphs 1 and 2 of this Decision (VaRt-1),

– average VaR parameter calculated in accordance with Section 397, paragraphs 1 and 2 of this Decision for the preceding 60 business days (VaR_{avg}) and multiplied with the multiplication factor (m_c) in accordance with the table under this Section (Table 36);

2) the higher of:

– the most recent value of the stressed VaR parameter calculated in accordance with Section 397, paragraphs 3 and 4 of this Decision (sVaRt-1)

– the average stressed VaR (sVaRavg) parameter for the previous 60 business days calculated in the manner and with the frequency as set out in Section 397, paragraphs 3 and 4 of this Decision and multiplied by the multiplication factor (ms) in accordance with the table under this Section (Table 36).

A bank using the internal model for the calculation of capital requirements for the specific risk of debt instruments shall calculate the additional capital requirement as the sum of:

1) the capital requirement calculated in accordance with Sections 338 to 341 of this Decision for the specific risk of securitisation positions and nth to default credit derivatives in the trading book with the exception of those incorporated in capital requirements for the specific risk of the correlation trading portfolio in accordance with Subpart 4 of this Part and, where

applicable, capital requirements for specific risk in accordance with Subpart 13 of Part 2 of this Chapter for those positions in open-ended investment funds for which none of the conditions in Sections 359 and 360 of this Decision is fulfilled, and

2) the higher of:

– the most recent risk number for the incremental default and migration risk,

– the average of this number of the preceding 12 weeks.

A bank with a correlation trading portfolio, which meets the requirements under Section 341, paragraphs 1 to 4 of this Decision, may, based on Section 341, paragraph 5 of this Decision, fulfil capital requirements for this portfolio in accordance with Section 409 of this Decision and shall calculate it as the highest of the following:

1) the most recent risk number for the correlation trading portfolio calculated in accordance with Subpart 4 of this Part;

2) the average of this number of the preceding 12 weeks;

3) 8% of the capital requirement that would, at the time of calculation of the most recent assessment of the correlation trading portfolio risk under 1), be calculated in accordance with Section 341, paragraph 5 of this Decision for all positions incorporated into the internal model for the correlation trading portfolio.

A bank shall apply the multiplication factors m_c and m_s to the average VaR parameters calculated in accordance with Section 397 of this Decision.

Each of the multiplication factors shall be the sum of factor 3 and plus factor in accordance with the table under this Section (Table 36). That plus factor shall depend on the number of overshootings for the most recent 250 business days as evidenced by the bank's back-testing of the VaR parameter calculated in accordance with Section 397, paragraphs 1 and 2 of this Decision conducted by a bank.

Table 36

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

To determine the number of overshootings, a bank shall use back-testing based either on actual or on hypothetical changes in the portfolio.

A bank shall count daily overshootings on the basis of back-testing on hypothetical and actual changes in the portfolio's value. The overshooting under this Section shall be a one-day change in the portfolio's value that exceeds the related one-day VaR number generated by a bank's internal model. To determine the plus factor, a bank shall determine the number of overshootings at least quarterly – as the number of overshootings based on hypothetical changes in the portfolio's value or the number of overshootings based on actual changes in the portfolio's value, depending on which is higher.

Back-testing on hypothetical changes in the portfolio's value shall be 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.

Back-testing on actual changes in the portfolio's value shall be based on a comparison between the portfolio's end-of-day value and its actual value at the end of the subsequent day, excluding fees, commissions and net interest income.

The National Bank of Serbia may in individual cases limit the plus factor resulting from overshootings under hypothetical changes, where the number of overshootings under actual changes does not result from deficiencies in the internal model.

403. By no later than within five days following the back testing, a bank shall inform the National Bank of Serbia of the number of overshootings under Section 402 of this Decision which lead to an increase in the plus factor.

3. Internal model for incremental default and migration risk

a) Requirement to have an internal IRC model

404. A bank that uses an internal model for calculating capital requirements for specific risk of traded debt instruments shall also have an internal incremental default and migration risk (IRC) model in place to capture trading book positions which is not covered by the VaR parameter under Section 397, paragraphs 1 and 2 of this Decision. A bank that uses the IRC model shall demonstrate that the model meets the following standards under the assumption of a constant level of risk, and adjusted where appropriate to reflect the impact of liquidity, concentrations, hedging and optionality:

1) the internal model provides a meaningful differentiation of risk and accurate and consistent estimates of incremental default and migration risk;

2) the internal model's estimates for potential losses play an essential role in the risk management of the bank;

3) the market and internal data used as input variables in the model are up-to-date and subject to a periodical quality assessment;

4) the requirements in Sections 394 and 396, Section 398, paragraph 1, indents two, three, five and six, and Section 400 of this Decision are met.

b) Scope of the internal IRC model

405. The internal IRC model shall cover all positions subject to the capital requirement for specific position risk, including those subject to a 0% risk weight under Sections 335 to 337 of this Decision, but shall not cover securitisation positions and nth-to-default credit derivatives.

A bank may, subject to prior consent of the National Bank of Serbia, include into this model all listed equity positions and derivatives positions based on listed equities, on the condition that such inclusion is consistent with how the bank internally measures and manages risk.

c) Parameters of the internal IRC model

406. A bank shall use the internal IRC model to calculate the amount of losses due to default and internal or external ratings migration at the 99.9% confidence interval over a time horizon of one year. A bank shall calculate this number at least weekly.

Correlation assumptions shall be supported by the analysis of objective data. The internal model shall appropriately reflect issuer concentrations, concentrations that can arise within and across product classes under stressed conditions.

The internal IRC model shall reflect the impact of correlations between default and migration events. The impact of diversification between, on the one hand, default and migration events and, on the other hand, other risk factors shall not be reflected.

The internal IRC model shall be based on the assumption of a constant level of risk over the one-year time horizon, implying that given individual trading book positions or sets of positions that have experienced default or migration over their liquidity horizon are re-balanced at the end of their liquidity horizon to attain their initial level of risk. Alternatively, a bank may choose to consistently use a one-year constant position assumption.

The liquidity horizons shall be set according to the time required to sell the position or to hedge all material position risks in a stressed market, having particular regard to the size of the position. Liquidity horizons shall reflect actual practice and experience during periods of both systematic and idiosyncratic stresses. The liquidity horizon shall be measured under conservative assumptions and shall be sufficiently long so that the act of selling or hedging would not materially affect the price at which the selling or hedging would be executed.

The determination of the appropriate liquidity horizon is subject to a floor of three months. In determining the appropriate liquidity horizon, a bank shall take into account the internal policies relating to valuation adjustments and management of stale positions.

When a bank determines liquidity horizons for sets of positions rather than for individual positions, the criteria for defining sets of positions shall be defined in a way that meaningfully reflects differences in liquidity. The liquidity horizons shall be greater for positions that are concentrated, reflecting the longer period needed to liquidate such positions. The liquidity horizon for a securitisation warehouse shall reflect the time to build, sell and securitise an instrument, or to hedge the material risk factors, under stressed market conditions.

d) Recognition of hedges in the internal IRC model

407. Hedges may be incorporated into a bank’s internal model to capture the incremental default and migration risks. Positions may be netted when long and short positions refer to the same financial instrument. Hedging or diversification effects associated with long and short positions involving different instruments or different securities of the same issuer, as well as long and short positions in instruments of different issuers shall be recognised only by explicitly modelling gross long and short positions in the different instruments.

A bank shall reflect the impact of material risks that could occur during the interval between the hedge’s maturity and the liquidity horizon, as well as the potential for significant basis risk in hedging strategies by product, seniority in the capital structure, internal or external rating, maturity, vintage and other differences in the instruments.

For positions hedged via dynamic hedging strategies, a rebalancing of the hedge within the liquidity horizon may be recognised provided that a bank:

1) chooses to model rebalancing of the hedge consistently over the relevant set of trading book positions;

2) demonstrates that the inclusion of rebalancing results in a better risk measurement;

3) demonstrates that the markets for the instruments serving as hedges are liquid enough to allow for such rebalancing even during periods of stress. Any residual risks resulting from dynamic hedging strategies shall be reflected in the capital requirement calculation.

e) Particular requirements for the internal IRC model

408. The IRC model shall reflect the non-linear impact of options, structured credit derivatives and other positions with material non-linear behaviour with respect to price changes. A bank shall also have due regard to the amount of model risk inherent in the valuation and estimation of position risks associated with such products.

The internal model shall be based on data that are objective and up-to-date.

As part of the independent review and validation of its internal models used for the purposes of this Part, including the risk management system, a bank shall in particular do the following:

1) validate that its modelling approach for correlations and price changes is appropriate to its portfolio, including the choice and weights of its systemic risk factors;

2) perform a variety of stress tests, including sensitivity analysis and scenario analysis, to assess the qualitative and quantitative reasonableness of the model, particularly with regard to the treatment of concentrations. Such tests shall not be limited to events experienced historically;

3) apply appropriate quantitative validation including relevant internal modelling benchmarks.

The internal model shall be consistent with the bank’s internal methodology for monitoring, measuring and managing trading risks.

A bank shall document its internal models so that its correlations and other modelling assumptions are transparent.

The internal model shall conservatively assess the risk arising from less liquid positions and positions with limited price transparency under realistic market scenarios. In addition, the internal model shall meet minimum data standards. Proxies shall be appropriately conservative and may be used

only where available data are insufficient or not reflective of the true volatility of a position or portfolio.

4. Internal model for correlation trading

409. A bank may, with prior consent of the National Bank of Serbia, use the internal model for the capital requirement calculation for the correlation trading portfolio, instead of capital requirements calculated in accordance with Section 341 of this Decision.

The National Bank of Serbia shall grant prior consent to a bank under paragraph 1 of this Section provided that the bank has obtained the National Bank of Serbia's consent to use the internal model for specific risk of debt instruments and meets the requirements in this Section, Section 394, Section 395, paragraphs 1 to 4, Section 396, Section 398, paragraph 1, indents one, two, three, five and six, and Section 400 of this Decision.

A bank shall use the internal model to calculate the indicator which adequately measures all position risks at a 99.9% confidence interval over a time horizon of one year, under the assumption of a constant level of risk, and adjusted to reflect the impact of illiquidity, concentrations, hedging and optionality. A bank shall calculate this indicator at least weekly. A bank shall adequately capture by this model the following risks:

1) the cumulative risk arising from multiple defaults, including different ordering of defaults, in tranched products;
2) credit risk spread, including the gamma and cross-gamma effects;
3) volatility of implied correlations, including the cross effect between spreads and correlations;
4) basis risk, including:
– the basis between the spread of an index and those of its constituent single names;
– the basis between the implied correlation of an index and that of bespoke portfolios;
5) recovery rate volatility, as it relates to the propensity for recovery rates to affect tranche prices;
6) to the extent the comprehensive risk measure incorporates benefits from dynamic hedging, the risk of hedge slippage and the potential costs of rebalancing such hedges;
7) any other material position risks in the correlation trading portfolio.

A bank shall use sufficient market data within the model referred to in paragraph 1 of this Section in order to ensure that it fully captures the salient risks of those exposures in its internal approach, in accordance with the requirements set out in this Section. A bank shall be able to demonstrate

to the National Bank of Serbia through back testing or appropriate means that its model can appropriately explain the historical price variations of those products.

A bank shall have appropriate policies and procedures in place in order to separate the positions for which it holds the National Bank of Serbia's prior consent to incorporate them into the capital requirement calculation by applying the internal model in accordance with this Section from other positions for which it does not hold such consent.

With regard to the portfolio of all positions incorporated in the model referred to in paragraph 1 of this Section, a bank shall regularly apply a set of specific, predetermined stress scenarios. Such stress scenarios shall examine the effects of stress to default rates, recovery rates, credit spreads, basis risk, correlations and other relevant risk factors on the correlation trading portfolio. A bank shall apply stress scenarios at least weekly and report at least quarterly to the National Bank of Serbia the results, including comparisons with the bank's capital requirements calculated in accordance with this Section. A bank shall immediately inform the National Bank of Serbia of any instances where the stress test results materially exceed the capital requirements for the correlation trading portfolio.

A bank's internal model shall conservatively assess the risk arising from less liquid positions and positions with limited price transparency under realistic market scenarios. In addition, the internal model shall meet minimum data standards. Proxies shall be appropriately conservative and may be used only where available data are insufficient or are not reflective of the true volatility of a position or portfolio.

5. Manner of granting prior consent of the National Bank of Serbia to use an internal models approach

410. When submitting the application for the consent to use an internal models approach, a bank shall submit to the National Bank of Serbia:

– general information on using such approach or a combination of approaches under Sections 391 and 392 of this Decision,
– documentation verifying compliance with the qualitative conditions under Sections 394 and 395 of this Decision,
– documentation verifying compliance with the quantitative conditions under Section 397 of this Decision,
– documentation verifying compliance with the additional conditions under Section 398 of this Decision, if the bank intends to use the internal models approach for specific position risk,

– documentation verifying compliance with the conditions for the validation of models and back-testing under Sections 400 and 401 of this Decision.

The National Bank of Serbia shall decide on the application for the consent under paragraph 1 of this Section within six months of the day of receiving such application.

A bank that intends to use empirical correlations in accordance with Section 396 of this Decision shall, in addition to the information and documentation set out in paragraph 1 of this Section, provide documentation evidencing that its system for measuring correlations is reliable and comprehensive.

A bank that has been granted the consent specified in paragraph 1 of this Section shall ensure continuous compliance with the conditions set forth therein.

In the consent to use the internal models approach for the calculation of capital requirements for position risk, foreign exchange risk and commodities risk, the National Bank of Serbia shall lay down whether a bank may use, in accordance with Section 396 of this Decision, empirical correlations within a specific risk category and across risk categories, whether it is allowed to use a combination of internal models approaches specified in Section 392, paragraph 1 of this Decision, and which combination can be used.

If a bank ceases to comply with the conditions set out in paragraph 1 of this Section, it shall promptly notify the National Bank of Serbia and shall submit to it within the shortest possible time either an appropriate plan for a return to compliance with these conditions or appropriate evidence that the effect of non-compliance is immaterial. If a bank has submitted the plan under this paragraph, it shall notify the National Bank of Serbia of its compliance with the conditions specified within the planned timeframe.

If a bank no longer intends to use empirical correlations, or when it intends to change the combination of approaches referred to in paragraph 5 of this Section, it shall promptly notify the National Bank of Serbia thereof and submit an application to change the existing consent, or to grant a new consent under that paragraph.

If a bank has been granted the consent of the National Bank of Serbia to use internal models approaches or their combination referred to in Section 392, paragraph 1 of this Decision, if duly justified, it may revert to the application of approaches set out in Parts 2 to 5 of this Chapter only with prior

consent of the National Bank of Serbia. For the purposes of obtaining the consent, a bank shall provide the National Bank of Serbia with the documentation justifying the validity of the decision to stop using the internal models approach for all or certain types of market risks.

6. Withdrawal of the consent to use the internal models approach

411. The National Bank of Serbia may withdraw the consent to use internal models approaches or a combination of those approaches referred to in Section 392, paragraph 1 of this Decision if it determines that the bank ceased to comply with the conditions set out in Section 410 of this Decision and the effects of non-compliance are material, if it failed to submit the plan specified in Section 410, paragraph 6 of this Decision, if the submitted plan is inadequate or if its actions are not in compliance with the plan, and if the number of overshootings referred to in Section 402 of this Decision makes the model inadequate.

If the National Bank of Serbia withdraws the consent referred to in paragraph 1 of this Section, a bank shall calculate capital requirements for position risk, foreign exchange risk and commodities risk in line with the approaches defined in Parts 2 to 5 of this Chapter.

Chapter VIII

CAPITAL REQUIREMENT FOR OPERATIONAL RISK

412. A bank shall calculate the capital requirement for operational risk by using one of the following approaches:

1) Basic Indicator Approach,
2) Standardised Approach, with the previous notification of the National Bank of Serbia, or the Alternative Standardised Approach, subject to prior consent of the National Bank of Serbia,
3) Advanced Approach, subject to prior consent of the National Bank of Serbia.

By way of derogation from paragraph 1 of this Section, subject to prior consent of the National Bank of Serbia, a bank may calculate the capital requirement for operational risk by using one of the following combination of approaches:

1) Advanced and Standardised Approach,
2) Advanced and Basic Indicator Approach,
3) Standardised and Basic Indicator Approach.

413. A bank using the Standardised or the Advanced Approach may revert to another, less complex approach or a combination of approaches subject to prior consent of the National Bank of Serbia. The application for obtaining such consent shall be accompanied by the documentation proving the fulfilment of the conditions under paragraph 2 of this Section.

The National Bank of Serbia shall grant the consent to revert to another, less complex approach under paragraph 1 of this Section if the following conditions are met:

– the purpose of the reverting is not a reduction in capital requirements for operational risk,
– reverting is necessary based on the nature and complexity of the bank's operation,
– reverting would not have a material effect on the bank's solvency and/or its ability to effectively manage operational risk.

By submitting to a bank the decision on the consent under paragraph 1 of this Section, the previously obtained consent for the application of the approach shall cease to be valid.

In the decision under paragraph 3 of this Section, the National Bank of Serbia shall specify the timeframe for transition to the approved approach.

If in the course of prudential supervision the National Bank of Serbia establishes that a bank no longer meets the requirements for the use of the Standardised Approach, it may require the bank to start using the Basic Indicator Approach in all or in certain parts of its business operations.

Part 1

Basic Indicator Approach

414. Under the Basic Indicator Approach, the capital requirement for operational risk shall be equal to a three-year average exposure indicator multiplied by a 15% rate of capital requirement.

The average of the last three exposure indicators from paragraph 1 of this Section shall be calculated as the arithmetic mean of the indicator values for the previous three business years. If any of the last three indicators was negative or equal to zero, it shall not be taken into account in the calculation of the three-year average. The three-year average shall instead be calculated as the ratio of the sum of positive indicator values and the number of years in which those values were realised.

A bank shall calculate the exposure indicator based on audited annual financial statements, and if such statements have not been audited, a bank may also use data from unaudited financial statements for that year.

Where a bank has been in operation for less than three years it may use forward-looking business estimates in calculating the relevant exposure indicator, provided that it starts using data from annual financial statements as soon as they are available.

With prior consent of the National Bank of Serbia, a bank may amend the calculation of the capital requirement under paragraph 1 of this Section, if it determines that by using the three-year average of the exposure indicator this calculation would not be correct due to a merger with or merger by acquisition of another bank, an acquisition or disposal of legal persons, introduction of new or cessation of performance of some existing business activities of a bank, whereas the calculation shall be amended in a way that would take into account such events.

The National Bank of Serbia shall grant the consent under paragraph 5 of this Section if it determines, based on the submitted documentation, the justifiability of the bank's application and adequacy of the proposed calculation amendment.

The National Bank of Serbia may require that the calculation under paragraph 1 of this Section be amended if it determines its justifiability due to the occurrence of circumstances under paragraph 5 of this Section, and the bank has not submitted the application for the consent under that paragraph.

The exposure indicator referred to in paragraph 1 of this Section shall be calculated as the sum of net interest income and net non-interest income, based on the following items:

– interest income and expense,
– income from dividends and equity investments,
– income and expenses from fees and commissions,
– gains and losses from the sale of securities,
– income and expenses from revaluation of assets and liabilities,
– foreign exchange gains and losses,
– other operating income.

A bank shall not include the following elements in the calculation of the exposure indicator:

– revenues and expenditures from indirect write-off of placements,
– provision for off-balance sheet positions,
– other operating expenses,
– realised gains/losses on financial assets not held for trading,
– other income not arising from regular operations of the bank (e.g. income arising from insurance)

Costs arising from outsourcing operations to third parties that are not a bank's parent company, its subsidiary or a subsidiary of its parent company shall be regarded as other operating expenses. Banks are not required to include the costs arising from outsourcing operations to third parties in the calculation of the exposure indicator, if the regulations governing the operation of such persons and the supervision of such operations are aligned with EU regulations.

Part 2

Standardised Approach

415. A bank using the Standardised Approach for the calculation of capital requirement for operational risk shall meet the following criteria:

1) it shall have a well-documented operational risk management system within the risk management system, with clearly defined responsibilities;
2) the operational risk management system shall enable the identification of bank's exposures to operational risk;
3) it shall collect relevant operational risk data, including material loss data;
4) it shall make sure that the operational risk management system is subject to regular internal or external audits conducted by persons of relevant expertise;
5) the results of operational risk assessment must be an integral part of the process of monitoring and controlling a bank's operational risk profile;
6) a bank has an established reporting system which supports the management and the employees involved in the risk management process in the decision making process;
7) a bank has internal acts which regulate the undertaking of necessary actions on the basis of obtained information. A bank which intends to use the Standardised Approach for calculating the capital requirement for operational risk shall notify the National Bank of Serbia accordingly and not later than 30 days prior to the application of this approach. Along with the notification, the bank shall submit the documentation evidencing compliance with the criteria set out in paragraph 1 of this Section, including the self-assessment of operational risk management

and the related external or internal audit report on the adequacy of the process for managing this risk.

A bank shall submit to the National Bank of Serbia the documentation listed in paragraph 2 of this Section at least annually.

416. For the purposes of calculating the capital requirement for operational risk under the Standardised Approach, a bank shall divide its activities into a number of business lines as set out in the table below (Table 37) and calculate the exposure indicator for each business line in the manner set out in Section 414, paragraphs 8 to 10 of this Decision:

Table 37

Business line mapping

Business line	**Business activities**	**Capital requirement rate**
Corporate financing	Underwriting of financial instruments or placing of financial instruments on a firm commitment basis	18%
	Services related to underwriting	
	Investment advice	
	Advice to companies on capital structure, industrial strategy and related matters and advice and services relating to mergers and the purchase of companies	
	Investment research and financial analysis and other forms of general recommendation relating to transactions in financial instruments	
Trading and sale	Dealing on own account	18%
	Money broking	
	Reception and transmission of orders in relation to one or more financial instruments	
	Execution of orders on behalf of clients	
	Placing of financial instruments without a firm commitment basis	
	Operation of Multilateral Trading Facilities	
Retail brokerage (including entrepreneurs, agricultural producers, small and medium-sized enterprises which meet the conditions set out in Section 51 of this Decision)	Reception and transmission of orders in relation to one or more financial instruments	12%
	Execution of orders on behalf of clients	
	Placing of financial instruments without firm commitment basis	
Corporate banking	Acceptance of deposits and other repayable funds	15%
	Lending	
	Financial leasing in accordance with provisions of a separate law	

	Issuing of guarantees and other commitments	
Retail banking (including entrepreneurs, agricultural producers, small and medium-sized enterprises which meet the conditions set out in Section 51 of this Decision)	Acceptance of deposits and other repayable funds	
	Lending	
	Financial leasing in accordance with provisions of a separate law	
	Issuing of guarantees and other commitments	
Payment transactions	Money transfer services and other payment services	18%
	Issuing and administering payment services	
Agency services	Safekeeping financial instruments for the account of clients and related services, such as custodianship and cash/collateral management	15%
Asset management	Portfolio management	12%
	Fund management	
	Other forms of asset management	

Under the Standardised Approach, the capital requirement for operational risk shall be equal to a three-year average of annual capital requirements for all business lines.

Annual capital requirement under paragraph 2 of this Section shall be equal to the sum of the capital requirements for individual lines of business from that paragraph for a given year.

The capital requirement for individual business lines from paragraph 3 of this Section shall be calculated by multiplying the exposure indicator calculated for that business line by the corresponding capital requirement rate specified in the table under paragraph 2 of this Section (Table 37).

Where the capital requirement for any individual business line is negative, these requirements (with a negative sign) shall be included in the calculation of annual capital requirement referred to in paragraph 2 of this Section.

The three-year average of annual capital requirements from paragraph 2 is the arithmetic mean of those requirements. Where the annual capital requirement for a given year is negative, the input to the calculation of the three-year average for that year shall include a zero instead of a negative figure and a three-year average divided by three.

A bank shall calculate the exposure indicator based on data from audited annual financial statements; if these statements are not audited, it may also use data from unaudited financial statements for that year.

Where a bank has been in operation for less than three years it may use forward-looking estimates in calculating the exposure indicator, provided it starts using historical data from annual financial statements as soon as they are available.

With prior consent of the National Bank of Serbia, a bank may amend the calculation of the capital requirement under paragraph 2 of this Section if it determines that by using the three-year average of the exposure indicator, this calculation would not be objective due to a merger with or merger by acquisition of another bank, an acquisition or disposal of legal persons, introduction of new or cessation of performance of some existing business activities of a bank, whereas the calculation shall be amended in a way that would take into account such events.

The National Bank of Serbia shall grant the consent under paragraph 9 of this Section if it determines, based on the submitted documentation, the justifiability of the bank's application and adequacy of the proposed calculation amendment.

The National Bank of Serbia may require that the calculation under paragraph 2 of this Section be amended if it determines its justifiability due to the occurrence of circumstances under paragraph 9 of this Section, and a bank has not submitted an application for the consent under that paragraph.

417. A bank shall regulate the manner of and criteria for calculating the exposure indicator in its internal acts, as well as for mapping individual business activities into business lines. It shall also adjust these criteria to the introduction of new or changes to the existing business activities and to new risks.

Basic principles of the mapping referred to in paragraph 1 of this Section shall include the following:

1) all activities must be mapped into business lines in a mutually exclusive and jointly exhaustive manner;
2) any activity which cannot be readily mapped into a business line and is an ancillary business activity to the core business under some of the specified business lines, shall be allocated to the business line it supports. If activities in more than one business line are supported through the ancillary activity, objective mapping criteria shall be used in accordance with the bank's internal acts;

3) if an activity cannot be mapped into any particular business line, this and all its ancillary activities shall be mapped into the business line with the highest capital requirement;

4) a bank may use internal pricing methods to allocate the exposure indicator between business lines. Costs generated in one business line which refer to another business line shall be attributed to that second line (for instance, based on internal transfer costs between the two business lines);

5) the mapping of business activities into relevant business lines shall in form and in essence be consistent with relevant provisions of this Decision relating to credit and market risks.

A bank's board of directors is responsible for adopting and supervising the implementation of the policy related to the mapping of business activities into business lines, and the executive board is responsible for policy implementation.

A bank shall ensure that the process of mapping business activities into business lines is subject to internal or external audits.

Alternative Standardised Approach

418. A bank shall calculate the capital requirement for operational risk under the Alternative Standardised Approach, by calculating the exposure indicator for the business lines "retail banking" and "commercial banking", as follows:

1) the exposure indicator is a normalised income indicator equal to the three-year average of the gross book value of loans and advances multiplied by 0.035;

2) the loans and advances consist of total drawn amounts in the corresponding credit portfolios. For the "commercial banking" business line, a bank shall also include securities in the non-trading book in the amount of loans and advances.

The National Bank of Serbia shall grant consent to use the approach under paragraph 1 of this Section if, in addition to the conditions under Section 415, paragraph 1 of this Decision, the following conditions are also met:

1) the bank's retail or commercial banking activities shall account for at least 90% of the bank's income;

2) a significant proportion of the bank's retail or commercial banking shall comprise loans associated with a high PD;

3) the Alternative Standardised Approach provides an appropriate basis for calculating the bank's capital requirement for operational risk.

When submitting an application for the consent under paragraph 1 of this Section, a bank shall submit to the National Bank of Serbia the documentation proving the fulfilment of the conditions under paragraph 2 of this Section.

Part 3

Advanced Measurement Approach

1. Requirements for the use of the Advanced Measurement Approach

419. A bank shall meet the following qualitative conditions for the use of the Advanced Measurement Approach:

– a bank shall set up a well-documented operational risk management system;
– a bank shall ensure its operational risk measurements to be fully integrated into day-to-day risk management processes;
– a bank shall establish an independent risk management function for operational risk, that is a separate organisational unit responsible for managing this risk;
– there shall be regular reporting of operational risk exposures and losses. The bank shall also have procedures for taking appropriate corrective actions on the basis of information received;
– external or internal audit notification with regard to the adequacy of the proposed operational risk management and measurement.

A bank shall meet the following quantitative conditions for the use of the Advanced Measurement Approach:

1) operational risk measurement and model for the calculation of capital requirement,
2) internal data,
3) external data,
4) scenario analysis,
5) factors reflecting the business environment and the internal controls system.

420. A bank shall ensure that the measurement of operational risk is adequate, especially taking into account the verification and validation of the reliability of this measurement, as well as the transparency and accessibility of data related to the measurement.

A bank shall calculate its capital requirement for operational risk as

comprising both expected loss and unexpected losses. If this expected loss has already been adequately captured in its internal business practices, a bank may exclude it from the calculation. The operational risk measurement shall also include events that are unlikely to occur but could cause great material losses, with a 99.9% confidence interval over a one-year period.

A bank shall ensure that the operational risk measurement system contains key elements to meet the adequacy criterion set out in paragraph 1 of this Section. Key elements of operational risk measurement are internal data, external data, scenario analysis, factors reflecting the business environment, internal controls system. A bank shall have a well-documented approach for assigning weights for the use of these elements in the measurement.

A bank shall ensure that the risk measurement system captures the major drivers of risk affecting the relationship between frequency of the event and the value of exposure arising from these events which are unlikely to occur but could cause great material losses (i.e. the shape of the tail of the loss estimates).

421. A bank’s operational risk measurement system shall take into account correlations in operational risk loss across individual operational risk estimates only if the measuring of correlations is sound and implemented with integrity, and if it takes into account the uncertainty surrounding any such correlation estimates, particularly in periods of stress. A bank shall validate its correlation assumptions using appropriate qualitative and quantitative techniques.

A bank shall include operational risk measurement, as an integral part of a unique system for managing that risk, in the risk management system, and shall avoid the multiple uses of qualitative assessments or risk mitigation techniques recognised for the calculation of capital adequacy.

422. A bank shall measure its operational risk based on a minimum historical observation period of five years. When a bank first moves to an Advanced Measurement Approach, at least a three-year historical observation period is acceptable.

A bank shall be able to map its historical internal loss data into business lines defined in Sections 416 and 417 of this Decision and into the event types defined in accordance with the table below (Table 38):

Table 38

Event type classification

Event-type category	Definition
Internal frauds	Losses arising from activities of bank employees with the intent of fraud, embezzlement, misappropriation of bank property and other illicit property gain due to violation of regulations or internal acts of the bank
External frauds	Losses arising from activities conducted with the intent of fraud, misappropriation of property, violation of regulations by a third party outside the bank
Employment practices and workplace safety	Losses arising from violation of law or contracts regulating labour relations, employment, health and social care or safety at work; losses arising from payment of personal injury claims or from discrimination events
Clients, products and business practices	Losses arising from unintentional or negligent failure to meet professional obligations towards clients, or from the nature or design of a product
Damage to physical assets	Losses arising from damaged physical assets due to force majeure (e.g. natural disaster) or other events
Business disruption and system failures	Losses arising from business disruptions or system errors
Transaction execution, delivery and process management	Losses arising from failed transactions or unsound process management, from relations with business partners and service providers

The National Bank of Serbia may require from a bank to supply data mapped as specified in paragraph 2 of this Section.

A bank may map events causing losses arising from operational risks at the bank level into the additional business line named “corporate items” and establish procedures for objective mapping of losses by event type.

423. Internal data on the operational risk losses that are related to credit risk and have historically been included in the internal credit risk database shall be recorded in the internal operational risk database and be separately identified. If these losses have been captured in the calculation of credit risk capital requirement, a bank shall not use them for the purposes of calculating the capital requirement for operational risk.

A bank shall include operational risk losses that are related to market risks in the scope of the capital requirement for operational risk, and not in the scope of the capital requirement for market risks.

A bank shall make sure that its internal loss data capture all materially significant activities and exposures, though some activities and/or exposures may be excluded if a bank is able to document that the excluded activities or exposures, both individually and in combination, would not have a significant impact on the overall risk estimates. A bank shall also make sure that appropriate minimum significance threshold (amount of money) for the collection of those data is defined.

Aside from information on gross loss amounts (without fees from insurance and other risk transfer mechanisms), within the process of collecting internal data a bank shall collect the following:

– the date of the event (where it cannot be determined, the date when the event was established or the loss was recorded in the business books),
– any recoveries of gross loss amount,
– the descriptive information about the causes of the loss event.

A bank shall specify the criteria for allocating data regarding losses arising from activities that span over more than one business line or events in centralised functions, as well as from related events over time.

A bank shall establish procedures for assessing the relevance of historical loss data which shall include any changes, adjustments and exceptions in the process of internal data collection, as well as the responsibility for implementing these procedures.

424. A bank's operational risk measurement system shall make use of relevant external operational risk loss data, especially when there is a reason to believe that a bank is exposed to events that are unlikely to occur, but could cause severe material losses.

A bank shall have procedures for determining the conditions for the use of external data, which includes designing the methodology for their incorporation in the operational risk measurement system. A bank shall regularly review the conditions and manner of use of external data, which shall be properly documented, and shall be subject to regular independent reviews.

425. When measuring operational risk, a bank shall also use scenario analysis which is based on the opinions of bank employees who have appropriate professional knowledge and experience, in order to assess its exposure to risk events that are unlikely to occur, but could cause severe material losses. Over time, such assessments need to be reassessed and validated through comparison to actual loss experience to ensure their reliability.

A bank shall ensure that its operational risk measurement system captures key business environment and internal control factors that influence the bank's operational risk profile, and the choice of each factor needs to be based on experience and expert judgement of employees in the affected business areas. The choice of factors shall be properly documented and

subject to internal and external audits. A bank shall regularly reassess and validate the process of capturing relevant factors and the outcomes through comparison to internal loss data and relevant external data.

The sensitivity of risk estimates to changes in the factors specified in paragraph 2 of this Section, and the method of assigning weights to those (various) factors need to be well-reasoned and documented. Operational risk measurement shall also capture potential increases in risk due to greater complexity of activities and increased business volume.

2. The impact of insurance and other risk transfer mechanisms

426. For the purposes of calculating capital requirement for operational risk, a bank may take into account the impact of insurance if the following conditions are met:

1) the insurance provider shall be duly authorised by the relevant regulatory body to provide insurance or reinsurance and shall have a credit assessment by an eligible credit assessment institution associated with credit quality step 3 or above belonging to the exposure to banks, in line with the provisions of Part 1 of Chapter IV of this Decision. The provider shall not be related to the bank, unless when exposure to operational risk is transferred to an independent third party (e.g. the reinsurer) which meets the conditions under this provision prescribed for the insurance provider;

2) the initial term of the insurance policy shall be no less than one year;

3) appropriate haircuts must be made reflecting the declining residual term of the policy. Insurance policies with a residual term of 90 days or less shall not be taken into account for the purposes of calculating capital requirement for operational risk;

4) the minimum notice period for cancellation of the insurance policy shall be 90 days;

5) the insurance policy shall have no exclusions or limitations related to damages, triggered by supervisory actions and measures imposed by competent or supervisory authorities. The policy shall have no provisions excluding or limiting damages in cases of bankruptcy or liquidation of a bank (except in respect of events occurring after the initiation of bankruptcy or liquidation), unless these limitations and exclusions are the result of fines imposed by these authorities;

6) the calculation of effects of risk mitigation must reflect the insurance coverage in a manner that is transparent and consistent with the actual likelihood and impact of loss used in the determination of operational risk capital requirement.

A bank shall have in place a methodology for recognising impacts

of insurance on the calculation of capital requirement for operational risk, which shall regulate the method for determining discounts and value reductions in relation to insurance impacts – in the following cases:

– the residual term of an insurance policy is less than one year;
– interest policy's cancellation term is less than one year;
– payment is uncertain and there are mismatches in the coverage of insurance policies.

When calculating the capital requirement for operational risk, a bank shall provide appropriate reasoning and shall document the impact of insurance and other transfer mechanisms.

427. The capital requirement reduction arising from the recognition of impacts of insurance and other transfer mechanisms shall not exceed 20% of the capital requirement for operational risk calculated without taking into account those impacts.

3. Granting and withdrawing consent of the National Bank of Serbia to use the Advanced Measurement Approach

428. The National Bank of Serbia shall grant prior consent to use the Advanced Measurement Approach for the calculation of the capital requirement for operational risk if a bank complies with the requirements specified in the decision governing risk management by banks and requirements set out in Sections 419 to 425 of this Decision.

For the purposes of obtaining the consent referred to in paragraph 1 of this Section, a bank shall submit to the National Bank of Serbia the following documentation:

– general information regarding the use of the Advanced Measurement Approach and its implementation plan,
– evidence of compliance with the requirements specified in that paragraph,
– overview of the use of insurance or other risk transfer mechanisms to reduce the bank's exposure to operational risk,
– own assessment of readiness to implement the Advanced Measurement Approach.

The National Bank of Serbia shall decide on the application for the consent referred to in paragraph 1 of this Section within six months of the day of receiving such application.

A bank shall submit to the National Bank of Serbia the internal or external audit report on the adequacy of the Advanced Measurement

Approach at least annually.

The National Bank of Serbia shall prescribe by guidelines the manner of implementing the provisions of this Section relating to the submission and assessment of the documentation.

429. If a bank which has been granted the consent to use the Advanced Measurement Approach for calculating capital requirements for operational risk ceases to comply with the conditions set out in Sections 419 to 425 of this Decision, it shall either promptly present to the National Bank of Serbia a plan for a timely return to compliance or demonstrate that the effect of non-compliance is immaterial. If a bank has submitted the plan under this paragraph, it shall promptly notify the National Bank of Serbia of its compliance with the specified conditions within the planned timeframe.

The National Bank of Serbia may withdraw the consent specified in paragraph 1 of this Section if it establishes that a bank ceased to comply with the conditions set out in that paragraph and the effects of non-compliance are material, if it failed to submit the plan specified in paragraph 1 of this Section, if the submitted plan is inadequate or if its actions are not in compliance with the plan.

For the purposes of calculating the capital requirement for operational risk, a bank whose consent specified in paragraph 1 of this Section has been withdrawn by the National Bank of Serbia, shall use the Basic Indicator Approach or the Standardised Approach.

The National Bank of Serbia shall give consent to the implementation of material changes and supplements to the Advanced Approach only if it determines based on submitted documentation and other available data that even after such changes and supplements a bank would comply with the conditions under Sections 419 to 425 of this Decision.

A bank using the Advanced Approach shall inform the National Bank of Serbia of all changes to the internal models that it uses within this approach.

Part 4

Combined use of different approaches

430. For the purposes of calculating the capital requirement for operational risk, a bank which obtained the consent of the National Bank of Serbia for the combined use of the approach for the calculation of capital requirement for operational risk shall calculate such capital requirement as

the sum of individual capital requirements for operational risk calculated by using individual approaches.

431. The National Bank of Serbia may grant to a bank the consent to use the Advanced Measurement Approach in combination with the Basic Indicator Approach or the Standardised Approach, subject to the following conditions:

– all operational risks of the bank are captured by the combination;
– the operational risk management methodology appropriately covers different activities, geographical locations, organisational units or other relevant factors;
– if the criteria defined in Section 415 of this Decision for activities for which the Standardised Approach is used are met, or the criteria defined in Sections 419 to 425 of this Decision, for activities for which a bank uses the Advanced Measurement Approach.

When granting the consent referred to in paragraph 1 of this Section, the National Bank of Serbia may require that, on the first day of application for the Advanced Measurement Approach, a substantial part of the bank's operational risk is to be covered by this approach, and that a bank shall undertake the obligation to transfer a material part of its business to this approach within the time schedule defined in that consent.

For the purposes of obtaining the consent referred to in paragraph 1 of this Section, a bank shall submit to the National Bank of Serbia the documentation evidencing the bank's compliance with the conditions set out therein, as well as an overview of activities broken down by individual approaches.

The National Bank of Serbia shall decide on the application for the consent referred to in paragraph 1 of this Section within six months of the day of receiving such application.

The National Bank of Serbia may withdraw the consent referred to in paragraph 1 of this Section if a bank ceases to comply with the conditions from that Section.

432. The National Bank of Serbia shall grant to a bank the consent for the combined use of the Basic Indicator Approach and the Standardised Approach only in exceptional circumstances when certain time is needed to revert to the Standardised Approach (e.g. introduction of a new business activity).

When applying for the consent referred to in paragraph 1 of this

Section, a bank shall submit to the National Bank of Serbia the documentation evidencing the existence of exceptional circumstances and their description, as well as a plan for reverting to the Standardised Approach for all business lines and organisational units.

In the decision granting the consent under paragraph 1 of this Section, the National Bank of Serbia shall also specify the timeframe for the transition from the combined approach to the Standardised Approach.

The National Bank of Serbia may withdraw the consent referred to in paragraph 1 of this Section if a bank fails to revert to the Standardised Approach within the timeframe specified in paragraph 3 of that Section.

Chapter IX

CAPITAL BUFFERS

433. For the purposes of this Chapter, the following definitions shall apply:

1) *capital buffers* include:
– capital conservation buffer,
– countercyclical capital buffer,
– capital buffer for a global systemically important bank,
– capital buffer for a systemically important bank,
– systemic risk buffer;

2) *combined buffer requirement* means the capital required to meet the requirement for the capital conservation buffer extended by the following capital buffers, as applicable:
– a bank's countercyclical capital buffer,
– capital buffer for a global systemically important bank,
– capital buffer for a systemically important bank,
– systemic risk buffer;

3) *countercyclical buffer rate* means the rate set by the National Bank of Serbia in accordance with Sections 436 to 441 of this Decision, i.e. the rate defined by the relevant third-country authority, which a bank must apply in order to calculate the countercyclical capital buffer;

4) *specific countercyclical buffer rate* means the rate that a bank calculates in accordance with Section 443 of this Decision for the purpose of calculating the countercyclical capital buffer;

5) *systemic risk* means a risk of disruption in the provision of financial services in the financial system with the potential to have serious negative consequences for the real economy, and includes a cross-sectoral dimension – structural risk, and/or the risk stemming from linkages among

financial sector entities and the cyclical dimension – the risk varying through time and depending on the financial cycle phase;

6) *consolidated basis* is a basis in the case of consolidation of a banking group whose highest parent company is incorporated in the Republic of Serbia;

7) *sub-consolidated basis* is a basis in the case of consolidation of a member of a banking group whose highest parent company is incorporated abroad.

1. Capital conservation buffer

434. A bank shall maintain a capital conservation buffer on an individual and consolidated basis equal to 2.5% of its risk-weighted assets, calculated in accordance with Section 3, paragraph 2 of this Decision.

The capital buffer referred to in paragraph 1 of this Section may consist only of Common Equity Tier 1 capital and may not be used for maintaining the capital adequacy ratio referred to in Section 3, paragraph 3 of this Decision, or increased capital adequacy ratio referred to in Section 5 of this Decision.

A bank not maintaining the capital conservation buffer referred to in paragraph 1 of this Section shall apply the capital conservation measures referred to in Section 455, paragraphs 2 to 4 of this Decision and the capital conservation plan under Section 458 of this Decision.

2. Countercyclical capital buffer

435. A bank shall maintain the countercyclical capital buffer on an individual and consolidated basis equivalent to its risk-weighted assets amount calculated in accordance with Section 3, paragraph 2 of this Decision multiplied by the specific rate of the countercyclical capital buffer referred to in Section 443 of this Decision.

The capital buffer referred to in paragraph 1 of this Section may consist only of Common Equity Tier 1 capital and may not be used for maintaining the capital adequacy ratio referred to in Section 3, paragraph 3 of this Decision, or the increased capital adequacy ratio referred to in Section 5 of this Decision, or for maintaining the capital conservation buffer under Section 434 of this Decision.

A bank not maintaining the capital buffer referred to in paragraph 1 of this Section shall apply the capital conservation measures referred to in Section 455, paragraphs 2 to 4 of this Decision and the capital conservation plan under Section 458 of this Decision.

Setting the countercyclical buffer rate for the Republic of Serbia

436. The National Bank of Serbia shall set the countercyclical buffer rate for the Republic of Serbia.

The National Bank of Serbia shall calculate at the quarterly level the guide based on which it estimates the necessary level of the countercyclical buffer rate for the Republic of Serbia.

The National Bank of Serbia shall base the calculation of the guide referred to in paragraph 2 of this Section on the deviation from long-term trends of ratios of credit to gross domestic product, starting from the indicator of credit growth in the Republic of Serbia, particularly the indicator reflecting a change in the ratio of loans approved in the Republic of Serbia to gross domestic product, taking into account the guidelines of the European Systemic Risk Board relating to the method of measurement and calculation of the deviation from long-term trends of ratios of credit to gross domestic product.

The National Bank of Serbia shall determine at the quarterly level the countercyclical buffer rate for the Republic of Serbia taking into account:

1) the guide under paragraph 2 of this Section;
2) the valid guidelines of the European Systemic Risk Board and all recommendations of the Board relating to setting of the countercyclical buffer rate;
3) other variables considered relevant for monitoring the cyclical dimension of systemic risk.

Countercyclical buffer rate for the Republic of Serbia

437. The National Bank of Serbia shall set the countercyclical buffer rate for the Republic of Serbia, in accordance with Section 436, paragraph 4 of this Decision, within the range of 0% and 2.5% of risk-weighted assets of a bank, calibrated in steps of 0.25 percentage points or multiples of 0.25 percentage points.

By way of derogation from paragraph 1 of this Section, the National Bank of Serbia may set a countercyclical buffer rate in excess of 2.5% of risk-weighted assets of a bank if this is justified by the estimate under Section 436, paragraph 4 of this Decision. The rate set in such way shall apply to the calculation of the specific countercyclical buffer rate in accordance with Section 443 of this Decision.

Start of application of the countercyclical buffer rate for the Republic of Serbia

438. When the National Bank of Serbia sets the countercyclical buffer rate for the Republic of Serbia above zero for the first time or when it increases the prevailing countercyclical buffer rate, it shall decide the date of the start of application of that rate, whereby such date shall be no later than 12 months after the date when the rate is announced.

The National Bank of Serbia may set as the date of the start of application of the countercyclical buffer rate the date before the expiry of one year from the date of announcement of such rate, if it estimates this is justified on the basis of exceptional circumstances.

Reduction in the countercyclical buffer rate for the Republic of Serbia

439. If the National Bank of Serbia reduces the existing countercyclical buffer rate or sets it at the level of 0%, it shall also define an indicative period during which no increase in the buffer rate is expected.

Announcement of the countercyclical buffer rate for the Republic of Serbia

440. The National Bank of Serbia shall announce on its website the countercyclical buffer rate for the Republic of Serbia and at least the following information:

1) the credit-to-GDP ratio and its deviation from the long-term trend;
2) the relevant guide under Section 436 of this Decision;
3) a justification for that buffer rate;
4) where the buffer rate is increased, the date from which banks must apply that increased buffer rate for the purposes of calculating the specific capital buffer;
5) if the deadline referred to in item 4) of this Section is less than 12 months after the date of the announcement, a reference to the exceptional circumstances that justify the shorter deadline for application;
6) where the buffer rate is decreased, the indicative period during which no increase is expected, together with a justification for that period.

Recognition of the countercyclical buffer rate in excess of 2.5%

441. If a relevant third-country authority sets a countercyclical buffer rate in excess of 2.5% of risk-weighted assets, the National Bank of Serbia

may recognise such rate for the purposes of calculation of the specific countercyclical buffer rate.

If the National Bank of Serbia recognises the rate under paragraph 1 of this Section, it shall announce such rate on its website and at least the following information:

1) the country to which this rate applies;
2) in the case of a rate increase, the date from which banks must apply that increased rate for the purposes of calculating the specific countercyclical capital buffer;
3) where the deadline referred to in item 2) of this paragraph is less than one year after the date of the announcement, a reference to the exceptional circumstances that justify such shorter deadline for application.

Setting the third-country countercyclical capital buffer rate

442. For the purposes of calculation of a countercyclical capital buffer for third-country exposures, the National Bank of Serbia may set the countercyclical buffer rate for the third country if the relevant third-country authority has not set and announced the countercyclical buffer rate for that country.

The National Bank of Serbia may set a different countercyclical buffer rate for the third country than the rate set by the relevant third-country authority, if that would be justified for the purposes of appropriate coverage of risks arising from excessive credit growth in that country.

In the event under paragraph 2 of this Section, the National Bank of Serbia may not set a countercyclical buffer rate below the level set by the relevant third-country authority, unless that buffer rate exceeds 2.5% of a bank's risk-weighted assets.

If the National Bank of Serbia sets a countercyclical buffer rate for a third country pursuant to paragraphs 1 to 3 of this Section which exceeds the countercyclical buffer rate set by the relevant third-country authority, it shall also set the date of the start of application of that rate, in accordance with Section 438 of this Decision.

The National Bank of Serbia shall announce the third-country countercyclical buffer rate set in accordance with paragraphs 1 to 3 of this Section on its website and at least the following information:

1) a justification for that buffer rate;
2) where the countercyclical buffer rate is set above zero for the first

time or is increased, the date from which banks must apply that increased buffer rate;

3) where the deadline is less than 12 months after the date of announcement, a reference to the exceptional circumstances that justify that shorter deadline for the start of application.

Calculation of specific countercyclical buffer rate

443. A bank shall calculate the specific countercyclical buffer rate as the weighted average of the countercyclical buffer rates for the Republic of Serbia and other countries where the relevant credit exposures of a bank are located or are applied in accordance with Section 442 of this Decision.

A bank shall calculate the weighted average under paragraph 1 of this Section as the sum of weighted applicable countercyclical buffer rates for particular countries, where the weights represent the ratio of total capital requirements for credit risk for relevant credit exposures in a relevant country to total capital requirements for credit risk relating to all relevant credit exposures of a bank.

Relevant credit exposures under paragraph 1 of this Section shall include all exposure classes, apart from those under Section 38, paragraph 1, items 1) to 6) of this Decision, which are subject to:

1) capital requirements for credit risk under Chapter IV of this Decision;

2) where the exposure is held in the trading book, capital requirements for specific risk under Chapter VII, Part 2 of this Decision or incremental default and migration risk under Chapter VII, Part 6 of this Decision;

3) where the exposure is a securitisation, the capital requirements under Chapter IV, Part 4 of this Decision.

A bank shall identify the geographical location of relevant credit exposures in accordance with the methodology for the identification of the geographical location of relevant exposures for the calculation of the countercyclical capital buffer under Annex 3 to this Decision.

For the purposes of paragraph 1 of this Section, a bank shall ensure appropriate records of applicable countercyclical buffer rates for countries where the relevant credit exposures of a bank are located, and shall set up the procedures for the timely updating of these records.

Application of the countercyclical buffer rate in excess of 2.5%

444. If the National Bank of Serbia, in accordance with Section 437, paragraph 2 of this Decision sets a countercyclical buffer rate in excess of 2.5% of the bank's risk-weighted assets, when calculating the specific countercyclical buffer rate under Section 443 of this Decision a bank shall apply that rate to relevant credit exposures that it holds in the Republic of Serbia.

If a relevant third-country authority sets the countercyclical buffer rate in excess of 2.5% of the bank's risk-weighted assets, when calculating the specific countercyclical buffer rate under Section 443 of this Decision for relevant credit exposures in that country a bank shall apply the following:

– a rate at the level of 2.5% of the bank's risk-weighted assets if the National Bank of Serbia did not, in accordance with Section 441 of this Decision, recognise a rate above 2.5%,
– a rate set by the third-country authority if the National Bank of Serbia recognised that rate in accordance with Section 441 of this Decision.

Start of application of the countercyclical buffer rate in calculation of the specific countercyclical buffer rate

445. In the event of an increase in the countercyclical buffer rate for the Republic of Serbia, that rate shall start to apply in the calculation of the specific countercyclical buffer rate under Section 443 of this Decision starting from the date specified in the announcement of the rate and information under Section 440, item 4) of this Decision, or Section 441, paragraph 2, item 2) of this Decision, as applicable.

In the event of an increase in the countercyclical buffer rate for the territory of a third country, that rate shall apply in the calculation of the specific countercyclical buffer rate under Section 443 of this Decision after the lapse of one year after the relevant third-country authority announced a change in the rate, regardless of whether this authority requests from the banks headquartered in that country to apply the changed rate within a shorter time period.

Within the meaning of paragraph 2 of this Section, the date of announcement of a change in the third-country countercyclical buffer date shall be the date when the relevant third-country authority announced a change in the rate in accordance with regulations of that country.

By way of derogation from paragraph 2 of this Section, in the event of an increase in the countercyclical buffer rate, if the National Bank of Serbia sets the third-country countercyclical buffer rate in accordance with Section 442, paragraphs 1 to 3 of this Decision or if it recognises the third-

country countercyclical buffer rate in accordance with Section 441 of this Decision, that rate shall be applied to the calculation of the specific countercyclical buffer rate under Section 443 of this Decision starting from the date specified at the time of announcement of the rates and information under Section 441, paragraph 2, item 2) or Section 442, paragraph 5, item 2) of this Decision.

In the event of a decrease in the countercyclical buffer rate, that rate shall be applied to the calculation of the specific countercyclical buffer rate under Section 443 of this Decision starting from the date of the announcement of the decision on the rate reduction.

3. Systemic risk buffer

446. The National Bank of Serbia shall set the rate and define the manner of maintaining the systemic risk buffer, for all banks or one or more banks, in order to prevent and mitigate long-term non-cyclical systemic risks.

Maintenance of systemic risk buffer

447. A bank shall maintain the systemic risk buffer on an individual, consolidated or sub-consolidated basis, at the level and in the manner defined by the National Bank of Serbia.

The capital buffer referred to in paragraph 1 of this Section may consist only of Common Equity Tier 1 capital and may not be used for maintaining the capital adequacy ratio referred to in Section 3, paragraph 3 of this Decision, or the increased capital adequacy ratio referred to in Section 5 of this Decision, or for maintaining capital buffers under Sections 434 and 435 of this Decision.

A bank which fails to act within the meaning of paragraph 1 of this Section shall apply the capital conservation measures referred to in Section 455, paragraphs 2 to 4 of this Decision and the capital conservation plan under Section 458 of this Decision, and/or other measures that the National Bank of Serbia may order to a bank in accordance with the Law on Banks, provided that the application of those provisions does not result in the satisfactory improvement in the bank’s Common Equity Tier 1 capital for the needs of the relevant structural systemic risk.

Manner of setting the systemic risk buffer rate

448. The National Bank of Serbia shall set the rate under Section 446 of this Decision at the level of at least 1% based on the exposure in the Republic of Serbia or a third country to which the systemic risk buffer applies,

and shall calibrate it in steps of 0.5 percentage points or multiples of 0.5 percentage points.

The rate under paragraph 1 of this Section may be different for different banks.

The National Bank of Serbia shall re-examine the need for maintaining the systemic risk buffer at least every two years.

If the National Bank of Serbia sets or changes the systemic risk buffer rate for exposures in third countries, it shall by no later than a month before it announces such rate in accordance with Section 449 of this Decision inform the relevant third-country authority.

Announcement of systemic risk buffer

449. The National Bank of Serbia shall announce the decision on application of systemic risk buffer on its website, and at least the following information:

1) the systemic risk buffer rate;
2) the banks which must maintain systemic risk buffer;
3) a justification for systemic risk buffer unless in the case when such justification could jeopardise financial stability;
4) the date from which banks must apply systemic risk buffer;
5) the names of the countries where exposures located in those countries are recognised in systemic risk buffer.

4. Capital buffer for global systemically important banks

450. A global systemically important bank shall maintain on a consolidated basis the capital buffer for a global systemically important bank which corresponds to the category under Section 451, paragraph 3 of this Decision to which the bank is classified.

The capital buffer referred to in paragraph 1 of this Section may consist only of Common Equity Tier 1 capital and may not be used for maintaining the capital adequacy ratio referred to in Section 3, paragraph 3 of this Decision, or the increased capital adequacy ratio referred to in Section 5 of this Decision, or for maintaining capital buffers under Sections 434 and 435 of this Decision.

Methodology for identification of global systemically important banks

451. The National Bank of Serbia shall identify on a consolidated basis global systemically important banks to which it issued operating licenses, as well as the categories of those banks according to their systemic importance, in accordance with the methodology for identification of global systemically important banks, which is based on the assessment of the following indicators:

1) size of a bank;
2) interconnectedness of a bank with the financial system;
3) substitutability of the services or of the financial infrastructure provided by a bank;
4) complexity of a bank's operations;
5) cross-border activity of a bank, including cross-border activity between the Republic of Serbia and EU member states, and between the Republic of Serbia and third countries.

Systemic importance under paragraph 1 of this Section means the expected influence of disturbances in operation of a global systemically important bank on the global financial market.

Global systemically important banks shall maintain the capital buffer for global systemically important banks at the levels of the following percentages of the amount of risk-weighted assets:

1) for the first category 1%,
2) for the second category 1.5%,
3) for the third category 2%,
4) for the fourth category 2.5%, and
5) for the fifth category 3.5%.

Without prejudice to the results of the assessment of the indicators under this Section, the National Bank of Serbia may, based on the supervisory judgment:

1) re-allocate a global systemically important bank from a lower to a higher category;
2) allocate a bank that has an overall score that is lower than the cut-off score of the lowest category to that or higher category, thereby designating it as a global systemically important bank.

The National Bank of Serbia shall review annually the identification of global systemically important banks and their respective categories. The National Bank of Serbia shall inform about the result of such review the global systemically important banks, by disclosing on its website

an updated list of identified global systemically important banks and the categories into which they are allocated.

5. Capital buffer for systemically important banks

452. The National Bank of Serbia shall identify systemically important banks to which it issued operating licenses.

The National Bank of Serbia shall set the capital buffer rate for a systemically important bank at the level of 0% to 2% of the bank's risk-weighted assets, taking into account the criteria, indicators and weights determined in the methodology for identification of systemically important banks which is developed by the National Bank of Serbia.

The capital buffer referred to in paragraph 2 of this Section shall be maintained on a consolidated, sub-consolidated or individual basis, as applicable, and may consist only of Common Equity Tier 1 capital and may not be used for maintaining the capital adequacy ratio referred to in Section 3, paragraph 3 of this Decision, or the increased capital adequacy ratio referred to in Section 5 of this Decision, or for maintaining capital buffers under Sections 434 and 435 of this Decision.

The National Bank of Serbia shall determine the list of banks in the Republic of Serbia which are identified as systemically important banks and the capital buffer rate for those banks.

Methodology for identification of systemically important banks

453. Systemic importance for the purposes of identification of systemically important banks shall be assessed based on at least one of the following criteria:

1) size of a bank;
2) importance for the economy of the Republic of Serbia;
3) importance of cross-border activity of a bank;
4) interconnectedness of a bank with the financial system;
5) substitutability of a bank in the financial system;
6) complexity of a bank.

The National Bank of Serbia shall review at least annually the capital buffer for systemically important banks and the methodology for identification of systemically important banks.

6. Relationship between capital buffers and combined capital buffer

454. A global systemically important bank or a systemically important bank shall apply on a consolidated basis the following capital buffers, if applicable:

1) capital buffer for a global systemically important bank or capital buffer for a systemically important bank, depending on which is higher, or
2) the highest among the capital buffer for a global systemically important bank, a systemically important bank and the systemic risk buffer.

Notwithstanding paragraph 1 of this Section, the National Bank of Serbia may determine that a global systemically important bank or a systemically important bank shall apply on a consolidated basis the sum of the following capital buffers:

1) higher of the capital buffer for a global systemically important bank and a systemically important bank and
2) systemic risk buffer.

If the capital buffer for a systemically important bank and the systemic risk buffer are applied to a systemically important bank on an individual or sub-consolidated basis, the systemically important bank shall apply the capital buffer which is higher of the two.

Notwithstanding paragraph 3 of this Section, the National Bank of Serbia may determine that a systemically important bank shall apply on an individual or sub-consolidated basis the sum of both capital buffers under paragraph 3 of this Section.

A bank which has been identified as a systemically important bank shall apply on an individual basis the combined capital buffer which equals at least the sum of the following capital buffers:

1) capital conservation buffer;
2) countercyclical capital buffer;
3) capital buffer for a systemically important bank and the systemic risk buffer, depending on which is higher.

Notwithstanding paragraph 5 of this Section, the National Bank of Serbia may determine that the bank under that paragraph shall apply on an individual basis the combined capital buffer which equals at least the sum of the following capital buffers:

1) capital conservation buffer;
2) countercyclical capital buffer;

3) capital buffer for a systemically important bank;
4) systemic risk buffer.

A bank may not use the same Common Equity Tier 1 capital for maintaining the capital buffer for a global systemically important bank, the capital buffer for a systemically important bank and the systemic risk buffer.

7. Capital conservation measures

Restrictions on distributions

455. A bank that meets the combined buffer requirement cannot make a distribution of Common Equity Tier 1 capital to an extent that would decrease its Common Equity Tier 1 capital to a level where a bank no longer meets the combined buffer requirement.

A bank that fails to meet the combined buffer requirement shall calculate the maximum distributable amount and promptly notify the National Bank of Serbia of that amount.

Before it has calculated the maximum distributable amount, the bank under paragraph 2 of this Section cannot:

1) make distributions in connection with Common Equity Tier 1 capital;
2) create an obligation to pay variable remuneration (rewards, bonuses etc.) or discretionary pension benefits (premiums paid to voluntary supplementary pension insurance, contributions to voluntary pension funds etc.) or pay variable remuneration if the obligation to pay was created at a time when a bank failed to meet the combined buffer requirements;
3) make payments on Additional Tier 1 instruments.

A bank that fails to meet the combined buffer requirement at least at the level prescribed by this Decision may not distribute more than the maximum distributable amount calculated in accordance with paragraph 5 of this Section through any action under paragraph 3 of this Section.

The maximum distributable amount shall be calculated by multiplying the sum of profit, calculated in accordance with paragraph 6 of this Section by the factor determined in accordance with paragraph 7 of this Section, based on data on capital and capital requirements on the date for which a bank determined that it does not meet the combined buffer requirement. The maximum distributable amount shall be reduced by any of the actions under paragraph 3 of this Section.

The sum of profit shall be calculated as the sum of amounts under items 1) and 2) of this paragraph, less the amount under item 3) of this paragraph:

1) interim profits not included in Common Equity Tier 1 capital pursuant to Section 10, paragraph 2 of this Decision, generated since the most recent decision of the bank's assembly on the distribution of profits or any of the actions under paragraph 3 of this Section;
2) year-end profits not included in Common Equity Tier 1 capital pursuant to Section 10, paragraph 2 of this Decision, generated since the most recent decision of the bank's assembly on the distribution of profits or any of the actions under paragraph 3 of this Section;
3) the amount which a bank would be obliged to pay under the profit tax under items 1) and 2) of this paragraph.

The factor shall be determined depending on the quartile to which Common Equity Tier 1 belongs which a bank does not use to meet the capital requirements under Section 3, paragraph 3, item 3) of this Decision and for the exercise of measures that the National Bank of Serbia may order in accordance with the Law on Banks, whereas Common Equity Tier 1 capital shall be expressed as the percentage share of the amount of risk-weighted assets in accordance with the table below:

Distribution quartile	Ranges of distribution quartiles	Factor
First quartile	0 < x < ¼ combined buffer requirement (CCBR)	0.0
Second quartile	¼ CCBR < x < ½ CCBR	0.2
Third quartile	½ CCBR < x < ¾ CCBR	0.4
Fourth quartile	¾ CCBR < x < CCBR	0.6

Distribution in respect of Common Equity Tier 1 capital within the meaning of paragraphs 1, 2 and 3 of this Section shall include the following:

1) a payment of cash dividends;
2) a distribution of fully or partially paid bonus shares or other capital instruments;
3) redemption or repurchase of own shares or other capital instruments of a bank;
4) a repayment of amounts paid up in connection with capital instruments;
5) a distribution of issue premium into shares making up Common Equity Tier 1 items, unallocated profit, accumulated other result and other reserves.

Payments subject to restrictions on distributions

456. The restrictions on distributions laid down by Section 455 of this Decision shall only apply to payments that result in a reduction of Common Equity Tier 1 capital or a reduction in profits, and where a suspension of payment or failure to pay does not constitute an event of default.

Distribution in the event of the failure to meet the combined buffer requirement

457. Where a bank fails to meet the combined buffer requirement and intends to distribute any of its distributable profits or undertake an action under Section 455, paragraph 3 of this Decision, it shall inform thereof beforehand the National Bank of Serbia and provide the following information:

1) the amount of capital maintained by a bank, subdivided as follows:
– Common Equity Tier 1 capital,
– Additional Tier 1 capital,
– Tier 2 capital;
2) the amount of its interim and year-end profits;
3) the maximum distribution amount calculated in accordance with Section 455, paragraph 5 of this Decision;
4) the amount of distributable profits it intends to allocate between the following:
– dividend payments,
– share buybacks,
– payments on Additional Tier 1 instruments,
– the payment of variable remuneration or discretionary pension benefits, whether by creation of a new obligation to pay, or payment pursuant to an obligation to pay created at a time when a bank failed to meet its combined buffer requirement.

A bank shall set up and maintain appropriate processes and procedures that ensure accurate calculation of the amount of distributable profits and the maximum distributable amount, and shall be able to demonstrate that accuracy to the National Bank of Serbia on request.

8. Capital conservation plan

458. Where a bank fails to meet its combined buffer requirement, it shall prepare a capital conservation plan and submit it to the National Bank of Serbia no later than five working days after it identified that it was failing to meet that requirement.

Notwithstanding paragraph 1 of this Section, the National Bank of Serbia may, on a bank’s request, approve that the capital conservation plan

be submitted within ten days after it identified that it was failing to meet that requirement, taking into account the volume and complexity of the activities performed by a bank.

The capital conservation plan shall include the following:

1) estimates of income and expenditure and a forecast balance sheet;
2) measures to increase the capital adequacy ratio of a bank;
3) a plan and timeframe for the increase of a bank's capital with the objective of meeting fully the combined buffer requirement.

The National Bank of Serbia may also require from a bank other data it considers necessary for the implementation of the assessment under paragraph 5 of this Section.

The National Bank of Serbia shall approve the capital conservation plan if it considers that the plan, if implemented, would be reasonably likely to conserve or raise sufficient capital to enable a bank to apply the combined capital buffer within the deadline which the National Bank of Serbia considers appropriate.

If the National Bank of Serbia does not approve the capital conservation plan in accordance with paragraph 5 of this Section, it shall impose one or both of the following:

1) order a bank to increase capital to a specified level within the specified period;
2) order a bank to impose more stringent restrictions on distributions than those required by Sections 455 to 457 of this Decision.

Chapter X

TRANSITIONAL AND FINAL PROVISIONS

459. For paid-in equity capital, hybrid capital instruments and subordinated liabilities that, until the start of application of this Decision, met the requirements to be included in the calculation of Tier 1 or Tier 2 capital, as applicable, a bank shall verify the fulfilment of the requirements referred to in Sections 8, 23 and 28 of this Decision until the start of application of this Decision.

Paid-in equity capital not meeting the requirements referred to in Sections 8 and 23 of this Decision, but which met the requirements to be included in the calculation of Tier 1 capital until the start of application of this

Decision, may be included in Common Equity Tier 1 capital in accordance with Section 7, paragraph 1, items 1) and 2), or Additional Equity Tier 1 capital in accordance with Section 22, paragraph 1, items 1) and 2) – by 31 December 2018.

Starting from 1 January 2019, paid-in equity capital referred to in paragraph 2 of this Section may be included in this capital in the following manner:

– by 31 December 2019 up to 80% of the amount of paid-in equity capital;
– by 31 December 2020 up to 60% of the amount of paid-in equity capital;
– by 31 December 2021 up to 40% of the amount of paid-in equity capital;
– by 31 December 2022 up to 20% of the amount of paid-in equity capital;
– from 1 January 2023 0% of the amount of paid-in equity capital.

Paid-in preferred cumulative shares, hybrid capital instruments and subordinated liabilities that do not meet the requirements referred to in Section 28 of this Decision, but which met the requirements to be included in the calculation of Tier 2 capital, may be included in the elements of Tier 2 capital referred to in Section 27, paragraph 1, items 1) and 2) by 31 December 2018.

Starting from 1 January 2019, paid-in preferred cumulative shares, hybrid instruments and subordinated liabilities referred to in paragraph 4 of this Section, a bank may include elements of Tier 2 capital referred to in Section 27, paragraph 1, items 1) and 2) of this Decision in the following manner:

– by 31 December 2019 up to 80% of their amount;
– by 31 December 2020 up to 60% of their amount;
– by 31 December 2021 up to 40% of their amount;
– by 31 December 2022 up to 20% of their amount;
– from 1 January 2023 0% of their amount.

460. A bank shall include the necessary reserve for estimated losses under balance sheet assets and off-balance sheet items, which is calculated in accordance with the decision governing the classification of balance sheet assets and off-balance sheet items, into the calculation of capital adequacy in accordance with Section 13, paragraph 1, item 13) of this Decision by 31 December 2018.

The deductible from Section 13, paragraph 1, item 5) may be determined by the bank, as applicable, for the purposes of consolidated reporting, as well as in accordance with regulations governing voluntary pension funds and pension plans.

461. Until the date of its accession to the European Union, a bank may assign the weight of the risk of exposures to the Republic of Serbia and the National Bank of Serbia, including exposures to EU member states and their central banks which are expressed and are settled in the currency of any member state, in the same manner as it assigns the weight of the risk of exposures to these persons which are expressed and settled in their national currencies.

462. Until the adoption of a separate law to regulate securitisation, banks may not perform the activities of the originator, sponsor or original lender in securitisation.

463. A bank shall test the application of provisions of this Decision to be able to fully align its operation with these provisions. A bank shall notify the National Bank of Serbia of the testing results under paragraph 1 of this Section by submitting the reports prescribed by the decision governing reporting on a bank's capital adequacy, as at 31 December 2016, by no later than 20 April 2017.

464. Until the day of the Republic of Serbia's accession to the European Union, a bank may not calculate a lower capital requirement for foreign exchange risk against positions in closely correlated currencies in accordance with Section 367 of this Decision.

465. Until the day of the Republic of Serbia's accession to the European Union, when calculating capital requirements for specific position risk, a bank may not exclude positions in stock indices which are exchange traded and broadly diversified, in accordance with Section 354, paragraph 5 of this Decision.

466. Until the day of the Republic of Serbia's accession to the European Union, the relationship between capital buffers and the combined capital buffer under Section 454 shall apply without the capital buffer for a global systemically important bank.

467. The Annexes to this Decision are enclosed with this Decision and are integral thereto.

468. This Decision repeals the Decision on Capital Adequacy of Banks (RS Official Gazette, Nos 46/2011, 6/2013, 51/2014 and 85/2016).

469. This Decision shall enter into force on the eighth day following its publication in the RS Official Gazette and shall apply as of 30 June 2017, except for Sections 450 and 451, which shall apply on the day of the Republic of Serbia’s accession to the European Union.

NBS Executive Board No 99

15 December 2016

Belgrade

Chairperson
Executive Board of the
National Bank of Serbia
Governor
National Bank of Serbia

dr Jorgovanka Tabaković, sgd.