Issued by the Banking Regulation and Supervision Board:

Regulation on Measurement and Assessment of Capital Adequacy of Banks*

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CHAPTER ONE
GENERAL PROVISIONS

Purpose

Article 1 – The Purpose of this Regulation is to ensure that banks maintain an adequate amount of capital against losses which may result from existing and potential risks, on a consolidated and unconsolidated basis.

Legal basis

Article 2 - This Regulation has been put into effect in accordance with paragraph 11 of article 3, subparagraph (a) of paragraph 1 and paragraph 4 of Article 13 of the Banks Act No. 4389.

Definitions

Article 3 – Terms and definitions used in this Regulation have the following meanings hereby assigned to them:

"Agency" means the Banking Regulation and Supervision Agency;

"Ownfunds and Consolidated Ownfunds" refers the definition in article 4 of "Regulation on Establishment and Operation Principles of Banks" published in Official Gazette no:2445 of 27.6.2001;

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* *Please note that the English version is an unofficial translation. Only the Turkish version of the regulation is legally binding.*

"Tier 3 capital" Tier 3 capital is any subordinated debt which is added to the capital for the sole purpose of meeting capital requirements for market risk, unsecured and fully paid up, having an original maturity of at least two years, not repayable nor can not be settled before the agreed repayment date without the approval of the Agency, subject to a lock-in clause which stipulates that neither interest nor principal may be paid even at maturity if such payment means that the bank falls below or remains below the standard ratio defined in this Regulation and does not include provisions, conditions and restrictions contradict banking principles and practices, on condition that it will be limited to 250% of bank's core capital which is not used for credit risk and which can be used for the market risk and any portion of the Tier 3 capital that is not used to support market risk shall not be taken into account in the calculation of capital adequacy ratio;

"Risk-weighted assets, non-cash credits and obligations" consists of the bank's assets, non-cash credits and commitments grouped in categories based on their risk weightings in various percentages as specified in schedules in (Annex:1) and (Annex:2);

"**Structural Positions"** are the qualified positions in foreign exchange assets or foreign exchange indexed assets, which

-are taken in order to hedge against the adverse effects of the rapid exchange rate and price movements on capital,

-are non-dealing nature,

-their valuation surplus arising through the holding period or maturity is retained in reserve funds,

-their exclusion rules and accounting principles are applied consistently through their holding period or up to maturity.

"Trading book items" means the on balance sheet and off balance sheet positions in financial instruments which are intentionally held for short-term resale in money and capital markets on a continuous basis and held with the intention of benefiting from the expected or realised differences between their buying and selling prices or from other price and interest rate variations or held due to matched principal

brokering and market making activities or derivative contracts related to hedge the risks arising from positions in financial instruments.

"General market risk" is the risk of loss composed of "interest rate risk", "equity position risk" and "foreign exchange risk", arising from changes in value of positions in the trading book due to changes in equity prices, interest rates and foreign currency exchange rates. Positions are made up of:

1)interest rate related debt securities,
2)equities,
3)other securities,
4)all asset and liability items denominated in different currencies which are included in the on and off balance sheet.
5)derivative contracts based on the instruments referred to above,

"Interest rate risk" is the probability of loss due to changes in interest rates depending on the bank's position.

"Equity position risk" is the probability of loss due to changes in equity prices depending on the bank's position in equities.

"Foreign exchange risk" is the probability of loss which may arise from changes in values of foreign currency denominated assets and liabilities, (against Turkish Lira).

"Specific risk" is the risk of loss associated with positions made up of interest rate related financial instruments or equities, owing to factors other than broad market movements and are related to the management and financial condition of the issuer, guarantor and underwriter of the financial instruments composing such positions.

"Value at Risk ("VaR")" is the number, estimated by using various statistical methods that expresses the maximum loss for a given confidence interval and holding period which a bank may be exposed to as a result of changes in the value

of its portfolio or its assets due to fluctuations in interest rates, foreign exchange rates and equity prices.

"Risk measurement model (Internal model)" is any risk measurement method used to calculate the daily "Value at Risk" in accordance with principles and procedures set out in Chapter Three of this Regulation.

"Standardised market risk measurement method" is the risk measurement method, which shall be used by the banks which does not implement an internal risk measurement model to estimate the daily "Value at Risk ", or by the banks whose existing such models are deemed inadequate by the Agency, in order to determine the capital charge for general market risks and specific risks using the framework described in fourth section of Chapter Three of this Regulation.

"Market risk exposure (trading book risk assets)" is the amount which is calculated by the methods in this regulation and included in the calculation of capital adequacy standard ratio together with the risk-weighted assets, non-cash credits and obligations .

“Backtesting” is the test by which the banks validate performance and accuracy of their risk measurement models in conformity with the procedures in article 14 of this Regulation.

"Number of exceptions" is the number of times that daily losses in the value of portfolio, due to changes in interest rates, equity prices and foreign exchange rates, is above the daily "Value at Risk" estimated by using the bank's internal model.

"Multiplication factor" is the factor specified in Article 15 of this Regulation, which is multiplied by the "Value at Risk" in order to calculate the market risk exposure.

"Plus factor" is the factor, which is computed on the basis of exceptions produced by the model as a result of backtesting and required to be added to the multiplication factor in conformity with the article 15 of this Regulation.

"Stress testing" describes all of the various techniques used to measure the potential strength of the bank's portfolio against unexpected risks.

"Options contract" is the contract whose buyer has the right either to buy or to sell a specified amount of particular underlying instrument (economic and financial indicator, money and capital market instruments, precious metals and currency) at a fixed exercise price by exercising the option at any time before or at its specified expiration date (depending on American type or European type) and whose seller is obliged to fulfill contract requirements if option is exercised,

"Call option" is the option whose buyer has the right to buy the underlying instrument at a price and amount specified in the options contract at its expiration or at any time before expiration,

"Put option" is the option whose buyer has the right to sell the underlying instrument at a price and amount specified in the options contract at its expiration or at any time before expiration,

"Exercise price" is the fixed price at which the option holder has the right to buy or sell the underlying instrument at any time before or at the expiration date,

"Option premium/ option price" is the amount that the buyer of an option pays to the seller for the rights conveyed by the option,

"In-the-money option" refers the case which the holder will profit from by exercising the option when the exercise price is more favorable to the market price of the underlying,

"At-the-money option" refers the case which the exercise price of an option is equal to the price of its underlying,

"Out-of-money option" refers the case which the holder will profit by exercising the option when the market price of the underlying is more favorable to the exercise price,

"Intrinsic value" is the amount by which an option is in the money,

"Hedging" refers taking an opposite position in order to limit monetary and financial loss of an existing position,

"Long position of call option" refers the position of a party who has purchased a call option,

"Long position of put option" refers the position of a party who has purchased a put option,

"Short position of call option" refers the position of a party who has sold a call option,

“Short position of put option” refers the position of a party who has sold a put option,

“Interest Rate Cap” is the maximum rate that will be paid for the floating interest rate contract,

“Interest Rate Floor” is the minimum rate that will be received for the floating interest rate contract,

“Delta” is the sensitivity of an option’s price (value) to a change in the price of the underlying contract,

“Gamma” is the sensitivity of an option’s delta to a change in the price of the underlying contract,

“Rho” is the sensitivity of an option’s price (value) to a change in the interest rate,

“Vega” is the sensitivity of an option’s price (value) to a change in the price volatility of the underlying contract,

“Theta” is the sensitivity of an option’s price (value) to a change in time to expiration,

“Volatility” is the measure of magnitude and frequency of changes in the price or rate of a financial instrument changes,

"Capital adequacy standard ratio" is the standard ratio of "capital base / risk-weighted assets, non-cash credits and obligations" which shall be prepared on both consolidated and unconsolidated basis.

CHAPTER TWO
CAPITAL ADEQUACY STANDARD RATIO

Capital adequacy standard ratio based on unconsolidated financial statements

Article 4 - Capital adequacy standard ratio on unconsolidated basis shall be calculated in accordance with procedures set out in Annex 1. Market risk included in the calculation of unconsolidated capital adequacy ratio is calculated in accordance with principles and procedures in Chapter Three. In calculating capital adequacy standard ratio, data compiled in accordance with regulations related to banks' accounting and recording systems shall be used.

Assets deducted from the capital shall not be subject to further risk-weighting in calculation of risk-weighted assets, non-cash credits and obligations. In calculation of risk-weighted assets and items deducted from capital, assets due to depletion and loss of value shall be transferred to the accounts at their net values after deducting amortization and reserves. With respect to the newly-defined items and new financial instruments that emerge as a result of amendments in the banking regulation, the ones, which have not yet been assigned a risk weight shall be subject to a 20 % risk weight until a contrary notice issued by the Agency.

In calculating credit risk exposure for the non cash credits, amount of receivables which are calculated by deducting the special provisions, if any, set aside in accordance with the procedures in regulation on loan loss provisioning is multiplied by the credit conversion factors specified in paragraph 1 of article 21 of the "Regulation on Establishment and Operation Principles of Banks" and than be re-weighted by the weights of the respective risk groups.

In calculating credit risk exposure for foreign exchange and interest rate related items, only the receivables from counterparties shall first be weighted by using credit conversion factors specified in paragraph 2 of article 21 of the Regulation on Establishment and Operation Principles of Banks and included in their respective risk groups. Such amounts shall then be re-weighted by the weights of the respective risk groups.

Capital adequacy standard ratio based on banks' consolidated financial statements

Article 5- Any parent bank, which is required to prepare consolidated financial statements pursuant to regulations issued by the Agency in accordance with the Banks Act, shall calculate and apply the capital adequacy standard ratio in accordance with the principles of Annex 2. The market risk shall be included in the calculation of capital adequacy standard ratio on a consolidated basis in accordance with principles and procedures set out in Chapter Three. Any bank, which is required to consolidate its financial statements, shall also calculate and apply the mentioned standard ratio based on unconsolidated financial statements.

Any parent bank and each of its consolidated financial partnership which is a member of a financial conglomerate (group) shall apply the same risk weightings for their on and off balance sheet items as of consolidated financial statement preperation period , based on provisions set out in Annex 2 regarding classification of risk-weighted items and their characteristics. In other words, a parent bank shall aggregate on and off balance sheet assets and liabilities of its consolidated partnerships in accordance with the principles for preparing consolidated financial statements, before classifying these items according to their risk weights and shall prepare “capital adequacy form drawn up based on consolidated financial statements" as set out in Annex 2.

In calculating credit risk exposure for the non cash credits, amount of net receivables which are calculated by deducting the special provisions, if any, set aside in accordance with the procedures in loan loss provisioning regulation is multiplied by the credit conversion factors specified in paragraph 1 of article 21 of the Regulation on Establishment and Operation Principles of Banks and included in their respective risk groups. Such amounts shall than be weighted by the weights of the respective risk groups.

In calculating credit risk charge for foreign exchange and interest rate related items, parent banks and their financial partnerships subject to consolidation shall apply credit conversion factors for the receivables from counterparties as specified in paragraph 2 of article 21 of the Regulation on Establishment and Operation Principles of Banks. In assessing credit risk charge for foreign exchange and interest rate related items, only the receivables from counterparties shall be weighted by applying credit conversion factors specified in paragraph 2 of article 21 of the Regulation on Establishment and Operation Principles of Banks and then included in the related risk group. Such amounts shall then be re-weighted by the weight of the related risk group. In such transactions, the consolidation and elimination operations shall be finalized prior to conversion and weighting process mentioned above.

Items related to factoring receivables and various lending of financial institutions other than banks, which are subject to consolidation, shall be included among credit items in the capital adequacy form.

Minimum ratio, calculation and reporting period

Article 6 - Banks shall reach and maintain a minimum 8 % capital adequacy standard ratio, on a consolidated and unconsolidated basis.

Banks shall prepare their capital adequacy ratio forms, on a consolidated or unconsolidated basis as of the end of unconsolidated or consolidated ownfunds calculation periods specified in article 4 of the Regulation on Establishment and Operation Principles of Banks and submit them to the Agency at least in the following month. Standard ratios which are calculated as of March, June, September and December shall be disclosed to public together with the balance sheet and income statement.

The Agency may decide to establish a ratio over the specified minimum ratio for each bank or banking group and may request more frequent preparation and reporting of the tables related to such ratios, by taking the adequacy of banks' internal control and audit systems and risk management systems besides the other factors affecting financial structures of banks into account,.

A report concerning the composition of foreign exchange assets and foreign exchange indexed assets which constitutes structural position shall be submitted to the Agency as annex to the capital adequacy standard ratio reports.

CHAPTER THREE
PRINCIPLES FOR CALCULATION OF MARKET RISK

Section One
Market Risk Exposure

Calculation of market risk exposure

Article 7 - Banks using an internal model approved by the Agency, shall calculate their market risk exposure by multiplying the "Value at Risk", which shall be calculated in accordance with principles and procedures set out in article 12 by the multiplication factor (by adding the additional multiplication factor (plus factor) if there is any) and "12,5",

Banks, which do not use a risk measurement model or whose models are not approved by the Agency, shall calculate their market risk exposure by multiplying the sum of "Interest Rate Risk", "Equity Position Risk", "Foreign Exchange Risk" "Specific Risk" charges and “Market Risk Charge of Options”, which are calculated using the "Standardised Method for Market Risk Measurement " as described in Section Four of this chapter, by "12,5".

Banks, whose models approved by the Agency shall incorporate specific risks of equities and interest rate related instruments into their model, in accordance with principles and procedures set out in (h) paragraph of Article11. Otherwise, banks shall calculate the amount of specific risk charge in accordance with the procedures and principles in articles 21 and 22 of this regulation.

If those banks whose models approved by the Agency incorporate specific risks into their models, the total amount of specific risk charge should in no case be less than half the specific risk charge calculated according to the standardised methodology.

Calculation of risk-weighted assets, non-cash credits and obligations exposed to credit risk

Article 8 - Risk-weighted assets, non-cash credits and obligations exposed to credit risk shall be grouped into categories and calculated according to their risk weights as specified in the “Capital Adequacy Analysis Form”. Debt securities and equity shares which are included in the bank's trading book and used in calculation of specific risk charge, shall not be subject to a further risk weighting or taken into account in calculation of risk-weighted assets, non-cash credits and obligations exposed to credit risk.

Section Two

Use of Internal Risk Measurement Models to Measure Market Risk

General criteria

Article 9 – In calculating market risk charge, banks shall use risk measurement models or develop their own models, in order to manage market risk, conditional upon the explicit approval of the Agency. The Agency will only give its approval, if at a minimum;

1) The bank's risk measurement system is conceptually sound, pursuant to principles and procedures set out in regulations issued by the Agency, implemented prudently and in a reliable manner,

2) The bank employs sufficient numbers of staff skilled in the use of sophisticated models not only in units responsible for recording and valuation of fund management and trading transactions but also in the processes of control and audit of these units,

3) The bank has a reliable data and recording system with a proven track record of reasonable accuracy in measuring risk and confirms the reliability of the model,

4) The bank regularly conducts stress tests and backtesting in accordance with the provisions and procedures set out in this section.

Qualitative standards of risk measurement models

Article 10 – The use of internal models in calculating capital charge is conditional upon the explicit approval of the Agency, provided that the bank meets the following criteria beside the criteria set out in Article 9:

a) The bank should have an independent risk control unit for trading activities within the "Risk Management Group", which is responsible for design and implementation of the bank's entire risk control system. This unit should produce and analyze daily reports based on the data and findings obtained from the bank's risk measurement model including trading limits. The bank's risk control unit must be independent from operational and other risk-taking units and report these findings directly to senior management of the bank.

b) The bank's risk control unit should conduct backtesting program at daily basis at a minimum monthly periods to verify the accuracy and performance of the model in accordance with the provisions and procedures set out in this Article.

c) Board of directors and senior management should actively be involved in the risk control process and must regard risk control as an essential aspect of business to which significant resources need to be devoted. Daily reports prepared by the bank's independent risk control unit, position limits of traders and limits pertaining to all exposures taken by the bank must be reviewed by a level of management with sufficient seniority.

d) The bank's risk measurement model must be closely integrated into the day-to-day risk management process and the output should accordingly be an integral part of the process of planning, monitoring and controlling the bank’s market risk profile.

e) The risk measurement model should be used in conjunction with trading and exposure limits. Even if the trading limits of traders have not been defined in terms of "Value at Risk”, it must be related to the bank's "VaR risk measurement model” in a manner that is consistent over time and that is well understood by both traders and senior management.

f) A routine program of stress testing should be in place as a supplement to the risk analysis process based on the day-to-day output of the bank's risk measurement model. The results of stress testing should be taken into account in setting policies and limits by board of directors and senior management. Results of stress tests should be reported to the senior management regularly and to the board of directors for certain periods.

g) The bank's risk measurement model must be well documented and a risk measurement and management manual, that describes the basic principles of the risk management system and that provides an explanation of the techniques used to measure risk must be put into effect.

h) The risk measurement system should be reviewed independently in the bank's internal control process and this review should include both the activities of the trading units and of the independent risk control unit. A review of the overall risk management process should take place at least once a year. Such review process should specifically address:

1) The scope of market risks captured by the risk measurement model,

2) The reliability of the management information systems,

3) The accuracy and completeness of position data,

4) The verification of the consistency, timeliness and reliability of data sources used to run internal models, including independence of such data sources,

5) The accuracy and appropriateness of volatility and correlation assumptions,

6) The verification of the model's accuracy and performance through backtesting,

7) The approval process for risk pricing models and valuation systems used by front-office and back-office personnel,

8) The adequacy of the documentation of the risk management system and process,

9) The organization of the risk control unit, and

10) The integration of market risk measures into daily risk management.

Quantitative standards for risk measurement models

Article 11– Banks must comply, at a minimum, with the following standards for risk measurement models they use to calculate their capital charges:

a) "Value at Risk" shall be calculated on a daily basis.

b) In calculating "Value at Risk" a one-tailed 99 % confidence level shall be used.

c) In calculating "Value at Risk" minimum holding period shall be 10 trading days. Banks shall use Value at Risk numbers calculated according to shorter or longer holding periods scaled up to ten days by the rule of square root of time.

d) The historical observation period for calculating "Value at Risk" shall not be less than 1 year. For banks that use exponentially weighted moving average method or other methods, historical observation period is at least one year and the effective observation period shall not be less than 6 months. If this requirement is not met, the higher of the “Value at Risk” calculated by using the equally weighted average and the exponentially weighted average methods shall be used.

e) Data sets used to calculate the "Value at Risk" shall be updated on a daily basis. The data that could not be collected at daily basis but collected at different frequencies (weekly, monthly, etc) shall be updated with respect to these frequencies. Every data set shall be reviewed at least once every three months and the collection process shall be controlled whether they are collected in a proper, timely, consistent and reliable manner. Under the abnormal market conditions these reviews shall be conducted more frequently. Banks cannot make any correction on the past values of data sets. Is such a correction is strictly a necessity, this circumstance with a detailed justification shall be reported immediately to the Agency. The Agency may require a bank to calculate its “Value at Risk” using a shorter observation periods, during significant price/interest rate fluctuations.

f) If the Agency determines any data sets, time series or references to be used by banks in calculation of "Value at Risk ", banks are required to use them.

g) In calculation of "Value at Risk " banks may use any risk measurement model based on "Variance - Covariance", "Historical Simulation" and "Monte Carlo Simulation" so long as each model used captures all the market risks to which they are exposed to.

h) Those Banks granted permission to use risk measurement model, may also assess their specific risks with their model if they comply with the following requirements. In assessing specific risks:

1) The model should be able to explain the historical price changes effectively, in this respect, the accuracy and the performance of the model (for example a high level of determination coefficient (R^2) at 0,90 levels) should be tested through various econometric and statistical modeling techniques.
2) The model should consider the concentrations in the portfolio in terms of size and composition, it should be sensitive to the composition of the portfolio and be able to indicate that higher concentration levels result in higher capital requirements.
3) The model should be designed to cope with unexpected market conditions. With historical simulations and worst-case scenarios the model should be able to signal unexpected market conditions.
4) The accuracy and performance of the model should be confirmed through implementing a separate backtesting procedure.

i) Banks' risk measurement models must accurately capture the unique risks associated with options. In measurement of risks arising from options, banks must comply with the following criteria:

1) The model should be able to estimate the nonlinear price movements of option positions.
2) Banks, in calculating the capital requirements of options and option-like positions, shall take into account the time period of 10 days as mentioned in the paragraph (c) of this Article.
3) The Agency, if deemed necessary, shall require the banks to make periodic simulations and/or stress tests for risk measurement of options.
4) The model should be able to estimate the price and ratio volatility (vega risk) of the option positions.
5) Banks with significant amount of option portfolios, should be able to estimate in detailvolatilities of underlying instruments at different maturities.

Calculation of capital charge based on value at risk

Article 12- In calculation of VaR based capital charges, banks shall consider the higher of (i) an average of the "Value at Risk" measures for the preceding 60 business days multiplied by the sum of "Multiplication Factor" and the " plus factor" and (ii) the previous day's "Value at Risk" number.

Stress tests

Article 13- Banks that use internal models for calculation of their capital charge for market risk, must regularly implement a comprehensive stress-testing program.

Banks' stress test scenarios should cover factors that can create extraordinary gains or losses in trading portfolios or make the control of risk in those portfolios very difficult. These factors include low-probability but plausible events in all major types of risks including market, credit and operational risks. Stress scenarios shall be applied to positions that display both linear and non-linear price characteristics.

Stress test scenarios shall be conducted with a view to evaluate the capacity of the bank's capital to absorb potential large losses and to identify steps the bank can take to reduce its risk and protect capital. Banks shall include the stress scenarios as deemed necessary by the Agency, to their stress testing programs.

The stress test scenarios and their results shall be reviewed periodically by the senior management and shall be reflected in the policies and limits set by the management and the board of directors. The records of stress tests shall be kept regularly and for supervisory purposes. The Agency, if deemed necessary, may require banks to provide these records and determine reporting procedures.

Backtesting

Article 14- In order to assess the accuracy and performance of their models banks shall count the "Number of Exceptions" each month by comparing daily profits and losses in their trading portfolios in the past 250 business days as a result of changes in risk factors with their model generated daily VaR estimates. In the

implementation of backtesting, only the daily profits and losses that result from market movements shall be taken into account.

In calculation of "Value at risk" for conducting a backtesting, a one-day holding period shall be taken into account other than the period defined in paragraph (c) of Article 11.

Determination of multiplication factor and plus factor

Article 15 - The "Multiplication Factor" is "3" for all banks using risk measurement models in calculation of market risk. The Agency may require banks to add to the multiplication factor the plus factor shown in the following table based on the number of exceptions obtained from backtesting results.

Number of Exceptions	Multiplication Factor	Plus Factor
4 and less	3.00	0.00
5	3.00	0.40
6	3.00	0.50
7	3.00	0.65
8	3.00	0.75
9	3.00	0.85
10 and more	3.00	1.00

The Agency, without being limited with the number of exceptions, after assessing the internal control and risk management systems of banks in terms of some criterion such as internal control, organizational structure, management quality, may additionally determine a coefficient, varies between 0 and 1 based on a quantitative rating and independent from above mentioned multiplication and plus factor, and add this coefficient to multiplication factors in calculation of market risk capital charge of banks.

Section Three
Validation of Risk Measurement Models

Procedures to be followed in granting authorization to use risk measurement models

Article 16 - Any bank, which intends to use internal model in calculation of its capital charge for market risk, shall submit to the Agency a report showing that the bank meets the quantitative and qualitative criteria set out in Section-II of this Chapter and all information and documents listed below. Agency may grant the bank authorization to use internal model, only on condition that the bank complies with the principles and procedures for model approval, which shall be further determined by the Agency.

The report shall include the following:

1) Organizational chart of the entire bank,
2) A detailed organizational chart of the fund (treasury) management unit, trading unit, the internal control center, the risk management group and other units related to the risk measurement model,
3) Names and job descriptions of senior managers and members of the executive board responsible for the risk management and fund (treasury) management,
4) Detailed job descriptions and responsibilities of all units related to the risk measurement model,
5) Names of the personnel assigned to the risk control unit, which is a part of the risk management group, with the information about their individual job descriptions, qualifications and work experiences,
6) Training schedule for the personnel assigned to risk control unit,
7) Information related to software and hardware used in connection with the risk measurement model,
8) A comprehensive explanation regarding methods used in calculation of "Value at Risk",
9) A list of all market risk factors indicating the sources, the length of historical time series, the method of updating and its frequency,
10) Procedures for dealing with missing data,
11) Details related to the method used in calculation of returns of market risk factors (logarithmic return, percentage return, etc.),

12) The underlying statistical assumptions about the distribution of market risk factors,
13) Procedures used for the confidence interval and holding period,
14) Approaches used for modeling the specific risk and risks related to financial instruments such as options, that display non-linear price characteristics,
15) Methods used for evaluation of extreme observations (outliers),
16) Description of the estimation method used to determine volatility and covariances,
17) Records of variance - covariance matrices used,
18) Description of the estimation method used and its evaluation,
19) Analysis of strengths and weaknesses of the method used,
20) Measures for ongoing evaluation of the appropriateness of the model,
21) Explanations, report, insights related to the test program conducted prior to the implementation of the risk measurement model throughout the bank, its performance after the implementation and problems encountered, if any,
22) Evaluations of other units in connection with the risk control process,
23) Description of the limits setting system established by the model used,
24) Procedures to be followed in utilization and violation of daily limits,
25) All risk categories covered by the model,
26) All positions in the bank's trading book, foreign exchange positions for each currency, list of interest rate related instruments categorized by their types of currency and their residual terms to maturity,
27) Valuation principles of financial instruments in trading books,
28) Description of the software used for trading activities,
29) All types of information and documents related to method used for backtesting,
30) All types of information and documents related to methods used for stress testings and scenario analysis,
31) A copy of the risk management manual, that lays down the process and principles for risk management,
32) All types of information, documents and data that may be required by the Agency.

The report shall also be approved by persons responsible for information technologies and risk control in addition to those authorized to represent the bank.

Any bank, which uses a risk measurement model for assessing its capital charge for market risk may not use the "Standardized Methodology " at its sole discretion.

Banks whose models have been approved shall immediately report to the Agency in case of any change that may affect model outputs, improvement or system change, indicating the reasons, effects and scope of this change. Necessary procedures shall be executed by the Agency, according to the regulations on the principles and procedures for model approval.

Agency may demand the approval of the home country supervisor if the branches of foreign banks established in Turkey intend to use the internal models approved and used in their headquarters. Considering the characteristics of the markets in which any branch actively trade, Agency may require these branch to re-determine the parameters of the model. If the branch uses a different model from that of headquarter, approval and views of the home country supervisor and headquarter shall be reported to the Agency.

Termination of authorization

Article 17 - If the Agency determines that a bank's risk measurement model no longer meets the specified requirements or no longer is adequate and reliable, then the Agency notifies the bank for remedial action and grants 3 months period to meet the requirements and eliminate the deficiencies. If the bank fails to meet the specified requirements, eliminate the deficiencies and improves the model (remedies the failures), the Agency withdraws its approval for using internal model in calculation of capital charge. Any bank, which has received a notice, shall use the "Standardized Market Risk Measurement Method", which is outlined in Section Four of this Regulation, in calculation of capital charge for market risk until it meets the specified requirements and eliminates the deficiencies.

Section Four
Calculation of Market Risk by Using Standardised Method

General provisions

Article 18 - Any bank, which does not use a risk measurement model for assessing its market risk, or which have failed to meet the required standards, or whose model is no longer sufficient and reliable shall use the "Standardised Market Risk Measurement Method" outlined in this Section.

Calculation of general market risk for interest rate related financial instruments

Article 19 - Market risk which may arise from interest rate exposures on interest rate related instruments and debt securities, including exposures on repo transactions and derivatives such as forwards, futures, and swaps based on these instruments shall be calculated by classifying short and long positions in these financial instruments and slotting them into the " Maturity Ladder Table" given in Annex 3.

The " Maturity Ladder Table" shall be prepared for Turkish Lira equivalent of each type of currency separately to be determined by the Agency.

Fixed rate instruments should be slotted into any of the relevant time bands according to the residual term to maturity and floating rate instruments according to the residual term to the next repricing date.

An interest rate swap transaction under which a bank is receiving floating rate interest and paying fixed, shall be treated a long position in a floating rate instrument of maturity equivalent to the period until the next interest fixing and a short position in a fixed rate instrument of maturity equivalent to the residual life of the swap.

Short and long positions in each time band are weighted using the risk weights for each time band as shown in the table given below. A 10% capital charge (vertical disallowance) shall be calculated on the lesser of the absolute values of the sum of weighted long and weighted short positions (matched weighted position) in the

same time band. Weighted longs and shorts in each time-band is calculated, resulting in a single short or long position for each band.

Residual Term to Maturity	**Risk Weight (%)**	**Assumed Change in Yield (%)**
TIME ZONE 1		
1 month or less	0,00	1,00
1 to 3 months	0,20	1,00
3 to 6 months	0,40	1,00
6 to 12 months	0,70	1,00
TIME ZONE 2		
1 to 2 years	1,25	0,90
2 to 3 years	1,75	0,80
3 to 4 years	2,25	0,75
TIME ZONE 3		
4 to 5 years	2,75	0,75
5 to 7 years	3,25	0,70
7 to 10 years	3,75	0,65
10 to 15 years	4,50	0,60
15 to 20 years	5,25	0,60
Over 20	6,00	0,60

The net short and long positions in each time band are summed within each of the 3 zones. If there are opposite positions in the same zone, 40% of capital charge (Horizontal Disallowance-I) is calculated for Zone 1 and 30% for Zone 2 and 3 on the matched weighted positions (lesser of the absolute values of added long and short positions in the same zone) in each zone.

Net short or long positions within each time zone is calculated resulting in a single position for each time zone.

If there are opposite positions in adjacent time zones, a 40% Horizontal Disallowance-II is calculated on the lesser of the absolute values of the long and short positions (matched weighted positions) between adjacent zones.

Any offsetting positions between adjacent time zones on which Horizontal Disallowance-II is calculated shall be netted. If Time Zone 1 and 2 is netted, the result shall be the position of Time Zone 1, if Time Zone 2 and Time Zone 3 is netted, the result shall be the position of Time Zone 3. If there are no offsetting positions between Time Zone 1 and 3, the Horizontal Disallowance-III shall be 100% of the sum of long or short positions in absolute values. If there are offsetting positions, Horizontal Disallowance-III shall be the sum of 100% of the matched position (lesser of the absolute value of the positions) and 100% of the netted position in absolute values.

If there are no offsetting positions in any adjacent time zones or time bands, Horizontal Disallowance-III shall be the sum of all positions in absolute values.

The sum of the vertical and horizontal disallowances gives the general market risk capital charge for interest related instruments.

Netting

Article 20 - Principles and procedures for netting the positions such as the long and short positions related to identical instruments with exactly the same issuer, currency, coupon and maturity before slotting in the "Maturity Ladder Table" shall be determined by the Agency.

Calculation of specific risk for interest rate related financial instruments

Article 21 - The specific risk charge for interest rate related instruments shall be calculated over their net positions based on their categories and residual terms to maturity at rates shown in the following table:

Category of Securities	Rate (%)
Government (Public) Securities	0.00%
Qualifying Securities	

With a residual term to maturity 6 months or less	% 0.25
With a residual term to maturity between 6 and 24 months	% 1.00
With a residual term to maturity exceeding 24 months	% 1.60
Other Securities	% 8.00

The qualifying category includes securities that are investment-grade by at least two credit rating agencies. Securities rated investment-grade by only one rating agency or unrated securities shall be included in the qualifying category if the issuer has securities listed on a recognized stock exchange.

Interest rate and currency swaps, "FRAs", forward foreign exchange contracts and interest rate futures shall not be subject to specific risk charge. However, in the case of futures contracts where the underlying is a debt security, specific risk charge shall be calculated according to the method set out above.

Calculation of general market risk and specific risk capital charges for equity positions

Article 22- a)Banks shall calculate their capital charge for specific and general market risk of equities, mutual funds, participation certificates, on- and off-balance sheet positions affected by changes in equity prices and equity derivatives other than options in their trading book.

In calculation of capital charge:

1) futures and forward contracts relating to individual equities shall be reported at marked-to-market prices ,

2) futures relating to stock indices shall be reported as the marked-to-market value of the underlying equity portfolio.

b) In equity swaps, each position shall be treated differently. Where one of the legs of an equity swap involves receiving/paying a fixed or floating interest rate, the related position shall be included in calculation of capital charge for interest rate risk as set out in Article 19.

c) Equity positions and their capital charge for specific and general market risk shall be calculated separately for each organized market.

d) Long and short positions in equities issued by the same issuer shall be netted before included in the calculation.

e) The capital charge for "Specific Risk" of equity position is 8% of the sum of absolute values of short and long equity positions. Such rate shall be 4 % where the portfolio is liquid and well-diversified. Also the spesific risk charge shall be 2% for the contracts on the indices shown in below table and 4% for the contracts on other indices.

INDEX	**COUNTRY**
IMKB-100	TURKEY
S & P 500	USA
NIKKEI 225	JAPAN
DAX	GERMANY
FTSE 100 and FTSE-Mid 250	U.K.
CAC 40	FRANCE
TSE 35	CANADA
SMI	SWITZERLAND
OMX	SWEDEN
IBEX 35	SPAIN
EOE 25	THE NETHERLANDS
BEL 20	BELGIUM
ATX	AUSTRIA

Any portfolio of equities included in indices listed above table shall be considered to be liquid and well-diversified if:

1) No individual equity position comprises more than 10% of the value of equity portfolios traded in the markets in each particular country (the country portfolio),

2) The total of equity portfolios comprised of minimum 5% and maximum 10% of the country portfolio, do not exceed 50 % of the bank's aggregate equity portfolio.

Mutual funds shall be considered to be liquid and well-diversified.

f) The capital charge for “General Market Risk” of equity position is 8% of the difference between the sum of the long and the sum of the short positions (net position) in equities.

Calculation of capital charge for foreign exchange risk

Article 23 - Banks shall calculate their capital charge for foreign exchange risk of all assets and liabilities denominated in foreign currency, derivative contracts such as forward foreign exchange transactions and swaps which carry foreign exchange risk. Capital charge for foreign exchange risk shall not be calculated for foreign exchange assets deducted from capital in calculation of capital.

In calculation of capital charge for foreign exchange risk, for each foreign currency, Turkish Lira equivalent of net position in all asset and liability items, net position related to irrecoverable non-cash credits and net forward position is calculated. Net short and net long positions in each currency shall be summed separately and the capital charge of 8% shall be calculated on the aggregate of i) the one with a higher absolute value and ii) the absolute value of the net gold position.

When including net positions for irrevocable foreign exchange non-cash credits into the calculation of the capital charge, the amount of the claim for the non-cash credit shall be considered as a long position if the bank’s claim is in the same currency with the credit itself. If the claim is denominated in a different currency, it shall be included in the foreign assets of its respective currency as a long position. The claims for non-cash credits shall be documented or collateralized in order to be considered as a long position.

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Credibility and solvency of the debtors of non-cash credits shall be determined according to the principles and procedures set out in “Regulation on the Principles

and Procedures Related to the Determination of the Loans and Other Receivables for which Provisions Shall be Set Aside by Banks and to the Provisions to be Set Aside". Long position used in the calculation of net position shall then be determined by deducting the amount of its specific provision, if any, on the liabilities side of the balance sheet from the amount of claim for non-cash credit.

In calculation of their net positions, foreign currency indexed assets and liabilities, regardless of the accounts they are booked, shall be considered as foreign assets and liabilities in the currencies they are indexed,. However these indexed assets and liabilities shall not be considered as foreign currency in measuring foreign exchange liquidity risk.

A bank may be exempted from capital requirement on its foreign exchange positions provided that:

1-Greater of the sum of its gross long positions and the sum of its gross short positions in each currency does not exceed 100% of capital, and,

2-The difference between sum of its gross long positions and the sum of its gross short positions does not exceed 2 % of its capital.

On condition that it does not exceed the capital and the net long position of its respective currency, long structural positions which is determined by the risk management unit of the bank as a combination of assets denominated in foreign currency and foreign currency indexed assets shall be exempted from capital charge for foreign exchange risk. No capital charge shall be calculated for these structural positions.

Distinctive qualitative requirements for structural positions and implementation principles and procedures for including structural positions in the calculation of capital adequacy standard ratio shall be set out separately by the Agency.

Section Five

Principles and Procedures concerning the incorporation of market risk of options to calculation of capital adequacy standard ratio

The responsibility of Banks

Article 24- Banks shall use the methods and procedures described in this section to calculate their capital requirements for risks resulting from options and related hedging positions in their portfolio. Endnotes for articles of this section are placed in Annex-4.

General Criteria

Article 25- Options contracts and related hedging positions in the associated underlying are subject to capital requirements as described in this section.

The capital charge calculated using methods described under this section shall be added to the total capital charge calculated based on standardized methodology.

In the case of financial instruments containing negligible amounts of option components, it is not compulsory to deal with the option component as an option mentioned in this section. Convertible bonds may be treated as bonds or as equities in accordance with the specific characteristics of each financial instrument. It is slotted into the corresponding time band based upon the most probable date of payment.

If the option component appears to be dominant, the financial instruments in question are to be dealt with as follows:

1- Analytical break-down into option and underlying instrument or,
2- Approximation of their risk profiles by means of synthetic portfolios of options and basis instruments.

Methods to Compute Capital Requirements of Options

Article 26 – Alternative methods used to measure market risk is classified as follows:

a- Banks which use only purchased options can use the “simplified methods”

b- Banks which also sell/write options shall use the “delta-plus method” or “scenario methods”

Banks whose portfolio activities significantly depend on options trading shall use more advanced methods.

Simplified Method

Article27- Banks which handle a limited range of purchased options only shall be free to use the simplified approach set out in table below. The positions for the options and the associated underlying are not subject to the specific and general market risk charge described in section on “Calculation of Market Risk by Using Standardised Method” but rather are “carved-out" and subject to separately calculated capital charges that incorporate both general market risk and specific risk as described in table below. Separate capital charges shall be calculated for each individual options positions. The numbers thus generated shall then be added to the capital charges calculated based on standardized methodology, depending on the relevant underlying.

Simplified method

Position	Treatment
Long cash and Long put or Short cash and Long call	The capital charge shall be the market value of the underlying security[1] multiplied by the sum of specific and general market risk charges for the underlying[2] less the amount the option is in the money bounded at zero[3]
Long call or Long put	The capital charge shall be the lesser of: (i) the market value of the underlying security multiplied by the sum of specific and general market risk charges for the underlying (ii) the market value of the option[4]

Delta-Plus Method

Article 28- Banks which write options, shall include delta-weighted options positions within the standardised methodology set out in section on “Calculation of Market Risk by Using Standardised Method”. Such options shall be reported as a

position equal to the market value of the underlying multiplied by delta. The specific risk capital charge shall be calculated by multiplying the delta equivalent position of each option by the specific risk weights set out in section on "Calculation of Market Risk by Using Standardised Method".

Since delta does not sufficiently cover the risks associated with options positions, banks shall also measure gamma and vega sensitivities in order to calculate the total capital charge. These sensitivities shall be calculated according to an approved exchange model or to the bank's options pricing model approved by the Agency[5].

a)Delta-weighted positions with debt securities or interest rates as the underlying shall be slotted into the interest rate time-bands, as set out in Article 19, under the following procedure:

1) Floating rate instruments with caps or floors shall be treated as a combination of floating rate securities and a series of European-style options.

2) A two-legged approach shall be used as for other derivatives, requiring one entry at the time the underlying contract takes effect and a second at the time the underlying contract matures[6].

b) The capital charge for options with equities as the underlying shall also be based on the delta-weighted positions. These positions shall be incorporated into the measurement of market risk described in Article 22. For purposes of this calculation each national market is to be treated as a separate underlying.

c) The capital charge for options on foreign exchange and gold positions shall be based on the method set out in Article 23. The net delta-based equivalent of the foreign currency and gold options shall be incorporated into the measurement of the exposure for the respective currency or gold position.

Calculation of gamma and vega risks

Article 29. In addition to the capital charges arising from delta risk described in Article 28, there will be further capital charges for gamma and for vega risk. Banks using the delta-plus method shall be required to calculate the gamma and vega for each option position, including hedge positions separately. The capital charges should be calculated in the following way:

a) for each individual option a "gamma impact" should be calculated as:

Gamma impact = ½ x Gamma x VU^2
where VU = Variation of the underlying of the option.

b) Variation of the underlying shall be calculated as follows:

1) for interest rate options if the underlying is a bond, the market value of the underlying shall be multiplied by the risk weights set out in Article 19. An equivalent calculation shall be carried out where the underlying is an interest rate, again based on the assumed changes in the corresponding yield in table set out in Article 19.

2) for options on equities and equity indices, the market value of the underlying shall be multiplied by 8% [7];

3) for foreign exchange and gold options, the market value of the underlying shall be multiplied by 8%;

c) For the purpose of this calculation the following positions shall be treated as the same underlying:

1) for interest rates, each time-band as set out in table in Article 19,
2) for equities and stock indices, each national market;
3) for foreign currencies and gold, each currency pair[8] and gold;

d) Each option on the same underlying shall have a gamma impact that is either positive or negative. These individual gamma impacts shall be summed,

resulting in a net gamma impact for each underlying that is either positive or negative. Only those net gamma impacts that are negative shall be included in the capital calculation. The total gamma capital charge shall be the sum of the absolute value of the net negative gamma impacts.

e) For volatility risk, banks shall be required to calculate the capital charges by multiplying the sum of the vegas for all options on the same underlying, by a proportional shift in volatility of 25%.

f) The total capital charge for vega risk shall be the sum of the absolute value of the individual capital charges that have been calculated for vega risk.

Scenario Method

Article 30- Banks using more sophisticated options techniques and/or banks with complicated options portfolio shall also have the right to base the market risk capital charge for options portfolios and associated hedging positions on scenario matrix analysis. For the purpose of calculating the capital charge, banks shall revalue the option portfolio using matrices for simultaneous changes in the risk factors such as option's underlying rate or price and the volatility of that rate or price. This shall be accomplished by specifying a fixed range of changes in the option portfolio's risk factors and then calculating changes in the value of the option portfolio at various points along the matrix.

A different matrix shall be set up for each individual underlying. As an alternative, for interest rate options banks which are significant traders in option shall be permitted to base the calculation on a minimum of six sets of separate time-bands. When using this method, not more than three of the time-bands as defined in Article 19 shall be combined into any one set.

The options and related hedging positions shall be evaluated over a specified range above and below the current value of the underlying. This constitutes the first dimension of the matrix. The range for interest rates should be consistent with the assumed yield changes in table in Article 19. Those banks using the alternative

method for interest rate options set out above shall use, for each set of time-bands, the highest of the assumed changes in yield applicable to the group to which the time-bands belong. The ranges are ±8% for equities, foreign exchange and gold. For all risk categories, at least seven observations, including the current observation, shall be used to divide the range into equally spaced intervals.

The second dimension of the matrix entails a change in the volatility of the underlying rate or price. A single change in the volatility of the underlying rate or price equal to a shift in volatility of + 25% and - 25% is expected to be sufficient in most cases. However, the Agency may choose to require that a different change in volatility be used and/or that intermediate points on the matrix be calculated.

After calculating the matrix, each cell contains the net profit or loss of the option and the underlying hedge instrument. The capital charge for each underlying will then be calculated as the largest loss contained in the matrix. The specific risk capital charge shall be calculated by multiplying the delta equivalent position of each option by the specific risk weights set out in section 4 on "Calculation of Market Risk by Using Standardised Method".

The application of the scenario analysis by any specific bank shall be subject to consent of the Agency, particularly as regards the existence of the tools and conditions necessary to use this method and their validation by the Agency. Banks' use of scenario analysis as part of the standardised methodology shall also be subject to approval and evaluation of the Agency based on the quantitative and qualitative standards listed in Section on "Use of Internal Risk Measurement Models to Measure Market Risk".

Besides the risks mentioned above, there are other risks associated with options, e.g. rho and theta. Although those risks are not included in their measurement systems at present, banks which undertake significant options positions should monitor such risks closely and should inform the Agency about the methods used to monitor them.

Section Six
Reporting Principles

Reporting requirement for internal models

Article 31- In calculation of market risk capital charge, those banks which have started to use internal models shall also calculate and report their capital requirement for market risk using standardised method outlined in Part Four for at least three reporting periods.

Combination of internal models and standardised methodology

Article 32 - Banks whose internal models are approved by the Agency may use standardised method to calculate their capital charge for negligible risk factors in their trading books. Banks using models for one or more risk factor categories shall not use standardised method for the same risk category unless they have a good reason for doing so. Banks shall submit a written notification to the Agency and shall provide the approval of the Agency.

Each risk factor, including risk categories within the same risk factor, shall be assesed using a single approach (either internal models or standardised method).

Banks which extend their internal models to capture all risk factors, may start to use internal model approach if they justify to the Agency they have a good reason for doing so.

In calculating their market risk exposures, banks which use the combination of internal models and the standardised method shall take into account the aggregate (simple sum) of the amounts obtained seperately under each of the two approaches using the calculation criteria laid down in Article 6 and Article 7 of the Regulation.

CHAPTER FOUR
OTHER PROVISIONS

Violations of Ratio Limits

Article 33 – If consolidated or unconsolidated capital adequacy standard ratios decrease below the minimum ratio, banks shall increase their capital adequacy standard ratios to the minimum ratio within the period to be determined by the Agency, which shall not exceed six months. This period shall begin from the calculation period and shall not exceed six months.

In case it is discovered that fictious transactions are made in order to maintain the standard ratios defined in this Regulation, corresponding amounts of these transactions are deducted back from assets and liabilities and the standard ratios of that period are re-calculated. The scope and definition of fictious transactions will be set forth by the Agency.

Special Finance Houses

Article 34 – Special finance houses are also subject to the provisions of this Regulation.

Regulations repealed

Article 35 – "Regulation on Measurement and Assessment of Capital Adequacy of Banks" published in the first supplementary issue of the Official Gazette no. 24314 and dated 10.02.2001 is repealed.

Provisional Article 1 - Market risk exposure shall be calculated on a consolidated basis and included in the capital adequacy standard ratio in accordance with the schedule given in Annex 2 effective from 01.07. 2002.

Provisional Article 2 – Provisions on publishing standard ratios set out in Article 6 of this regulation shall be effective from 01.07. 2002.

Effective date

Article 36 - This Regulation shall come into effect on the date of publication and shall be valid from 01.02.2002.

Execution

Article 37 - This Regulation shall be executed by the Agency.

ANNEX: 1

CAPITAL ADEQUACY ANALYSIS FORM BASED ON UNCONSOLIDATED (SOLO) FINANCIAL STATEMENTS

(As of ..../..../.....)

I - CORE CAPITAL

A) Paid-up capital

B) Legal reserves

C) Optional reserves and reserves for probable losses

D) Total of net profit for the period and previous years' profit

E) Total of loss for the period and previous years' losses (-)

II - SUPPLEMENTARY CAPITAL

A) General loan reserves

B) Fixed asset revaluation fund (including reserves for cost value increase adjustment, shares of subsidiaries and affiliates to be included in capital and proceeds from the sale of real property)

C) Revaluation fund calculated for the fixed assets as specified in the definition of supplementary capital in Article 4, paragraph 4 of Regulation on the Establishment and Operation Principles of Banks.

D) Provisions for revaluation of fixed assets of subsidiaries and affiliates (including those related to other participations held for the purpose of acquiring an interest in capital and booked among securities)

E) Subordinated debts

F) Securities value increase (revaluation) fund

G) Free reserves for probable risks

III-TIER 3 CAPITAL

IV- CAPITAL (According the limits specified in the Regulation: I + II + III)

V - ASSETS DEDUCTED FROM CAPITAL

A) All capital participations to the financial institutions which mainly operate in money and capital markets or insurance sector with permissions and licenses defined in specific acts in these fields.

B) Special expense values (cost accounts)

C) Preliminary expenses

D) Pre-paid expenses

E) Difference between the fair value and the book value if the fair value of subsidiaries, affiliates, investments in other participations and fixed assets are below their book value

F) "Subordinated loans" extended to other banks operating in Turkey

G) Goodwill

H) Capitalised costs

VI – OWN FUNDS(IV - V)

VII - RISK-WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

A) 0% risk weight

B) 20% risk weight

C) 50% risk weight

D) 100% risk weight

E) Market risk exposure (Such amount shall be calculated in accordance with principles and procedures set out in Chapter Three and included in standard capital adequacy ratio)

TOTAL

STANDARD CAPITAL ADEQUACY RATIO (VI / VII) %

SUPPLEMENTARY CAPITAL / CORE CAPITAL (II/I) %

SUBORDINATED TERM DEBTS /CORE CAPITAL (IIE/I) %

RISK-WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

<u>0% RISK WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS</u>

- CURRENT ASSETS

a - Cash in vault

b- Cash in foreign currency

c - Cash to be received (Cash in transit)

- BANK ACCOUNTS

a– Accounts with Central Bank

- INTERBANK MONEY MARKET
- RECEIVABLES FROM REVERSE REPO TRANSACTIONS

a-Receivables from reverse repo transactions performed with securities issued or guaranteed by the Treasury, the central governments and the central banks of OECD countries or revenue participating certificates subject to 0% risk-weight.

- RESERVE REQUIREMENTS

- LOANS

a - Loans collateralised by cash

b – Loans extended to Central Bank and Treasury and loans guaranteed by the Treasury

c - Loans collateralised by securities issued by the Treasury and securities guaranteed

by the Treasury

d - Loans guaranteed by the central governments and the central banks of OECD countries, loans collateralised by securities issued or guaranteed by the central governments and the central banks of OECD countries

e - Loans extended from Funds established by laws and Decrees, whose risk is not taken by the intermediary bank

f - Loans which are collateralised by the bank's own securities (except mutual funds)

g – Loans extended to Export Credit Bank of Turkey

- MISCELLANEOUS RECEIVABLES

a - Receivables from funds

b - Securities subject to 0% risk weight and claims collateralised by guarantees of central governments and the central banks of OECD countries, the Treasury and by cash pledges

c - Special accounts with Central Bank

- INVESTMENT SECURITIES (NET)

a - Treasury bills, government bonds, revenue participating certificates issued by Public Participation Administration and Privatization Administration, securities issued under the guarantee of the Treasury, securities issued by central governments and central banks of OECD countries or securities guaranteed by them, gold and due securities (related with securities having 0 % weight) monitored in investment securities.

- PRE-PAYMENTS FOR ASSETS ACQUIRED BY FINANCIAL LEASING

a – Pre-payments for assets acquired by financial leasing, including securities subject to 0 % risk weight and those collateralised by guarantees of the central governments and central banks of OECD countries and those collateralised by cash pledge or Treasury guarantee

- FIXED ASSETS (NET)

a - Real property, which banks compulsorily acquire and include in their assets pursuant to provisions of applicable laws, decrees and other regulations, other than they acquire on account of their receivables pursuant to paragraph two of Article 12 of the Banks Act

- OTHER ASSETS

a - Pre-paid taxes

b - Special duty accounts (Claims from Treasury)

c - Other claims on central governments and central banks of OECD countries, other claims guaranteed by the central governments and central banks of OECD countries, securities subject to 0% risk weight and other receivables collateralised by cash and Treasury guarantee

d - Inter-branch transfer accounts

e - Gold

- GUARANTEES AND UNDERTAKINGS

a - Guarantees and undertakings collateralised by cash pledge

b - Guarantees and undertakings extended to the Treasury and the Central Bank and secured by the Treasury guarantee

c- Guarantees and undertakings collateralised by securities issued or guaranteed by the Treasury

d- Guarantees and undertakings collateralised by the central governments and central banks of OECD countries, and guarantees and undertakings collateralised by securities issued or guaranteed by central governments and central banks of OECD countries

e - Guarantees and undertakings collateralised by securities issued by banks (excluding mutual funds)

f - Endorsements

- COMMITMENTS

a - Revocable contingencies which can be unconditionally cancelled by the bank

- FOREIGN EXCHANGE AND INTEREST RATE RELATED TRANSACTIONS (In foreign exchange and interest rate related transactions, receivables from the counterparty which have the same characteristics with loans subject to 0 % risk weight - amounts weighted by credit conversion rates)

- INTEREST AND INCOME ACCRUALS (for items subject to 0 % risk weight)

<u>20 % RISK WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS</u>

- CURRENT ASSETS

a - Bank checks denominated in a foreign currency drawn / purchased by banks in OECD countries

- BANK ACCOUNTS

a - Accounts in domestic banks

b - Claims on banks of OECD countries which are not collateral, not blocked and which can be freely used by the bank except maturity

c – Accounts in head offices or any other overseas branches of foreign banks operating in Turkey

- RECEIVABLES FROM REVERSE REPO TRANSACTIONS

a-Receivables from reverse repo transactions performed with securities issued or guaranteed by the banks of OECD countries

b- Receivables from reverse repo transactions performed with securities issued or guaranteed by other securities

- SPECIAL FINANCE HOUSES

- LOANS

a- Loans collateralised by counter guarantees of banks operate in Turkey

b- Loans collateralised by counter guarantees of banks in OECD countries

c- Loans collateralised by securities issued or guaranteed by banks in OECD countries

d- Loans extended to intermediary institutions operating in capital markets of OECD countries, which are subject to prudential supervision and regulation including risk-based capital obligation, or loans collateralised by a guarantee or undertaking of such institutions.

MISCALLENEOUS RECEIVABLES

a- Claims on intermediary institutions operating in capital markets of OECD countries, which are subject to prudential supervision and regulation including risk-based capital obligation, or claims collateralised by a guarantee or undertaking of such institutions.

- INVESTMENT SECURITIES (NET)

a - Securities issued or guaranteed by banks in OECD countries, mutual fund shares and due securities (related to securities subject to 20 % risk weight) which monitored in investment securities.

- PRE-PAYMENTS FOR ASSETS ACQUIRED BY FINANCIAL LEASING

a- Pre-payments for assets acquired by financial leasing purposes collateralized by counter-guarantees of banks in OECD countries or by securities issued or guaranteed by banks in OECD countries

- GUARANTEES AND UNDERTAKINGS

a -Guarantees and undertakings collateralised by counter-guarantees of banks operate in Turkey

b -Guarantees and undertakings collateralised by counter-guarantees of banks in OECD countries

c -Guarantees and undertakings collateralised by securities issued or guaranteed by banks in OECD countries

d - Letters of preliminary and performance guarantees (except those which are subject to 0 % risk weight)

e-"Letters of credit" with a maturity of up to one year, which are automatically redeemed and secured by a "shipment" obligation

- COMMITMENTS

a -Other revocable commitments

- FOREIGN EXCHANGE AND INTEREST RATE RELATED TRANSACTIONS (In derivative transactions, receivables from the counterparty which have the same characteristics with loans subject to 20 % risk weight; amounts weighted by credit conversion rate)

- INTEREST AND INCOME ACCRUALS (for items subject to 20 % risk weight)

- ACCOUNTS WHICH ARE NOT RISK WEIGHTED IN THIS SCHEDULE AS SPECIFIED IN PARAGRAPH (5) OF ARTICLE 4 OF THE REGULATION

50 % RISK WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

- LOANS

a - Loans secured by a prior lien mortgage on a property which is used for residence

b - Loans secured by a prior lien mortgage on registered lands and properties within the boundaries of a municipality

- RECEIVABLES FROM FINANCIAL LEASING TRANSACTIONS

- ASSETS ACQUIRED BY FINANCIAL LEASING (NET) (Lands, buildings, establishments, machines and equipment, vehicles and other assets acquired by financial leasing contract and included in banks' fixed assets pursuant to the Financial Leasing Law and Tax Procedures Law and pre-payments for assets acquired by financial leasing other than those to which 0 % and 20 % risk weight is applied)

- GUARANTEES AND UNDERTAKINGS

a - Other letters of guarantee (other than those which are subject to 0 % and 20 % risk weight)

b - Guarantees and undertakings secured by a prior lien mortgage on a property used for residence

c- Guarantees and undertakings secured by first mortgage on registered lands within the boundaries of a municipality

d - Other letters of credit (other than those subject to 0 % and 20 % risk weight)

- COMMITMENTS

a - Underwriting of bond issue

b - Non-revocable commitments (other than those subject to 0 %, 20 % and 100 % risk weight)

-OTHER OFF-BALANCE SHEET ACCOUNTS

a - Underwriting and undertaking of securities

- INTEREST AND INCOME ACCRUALS (for items subject to 50 % risk weight)

100 % RISK WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

- CURRENT ASSETS

a –-Due securities (related to securities subject to 100 % risk weight)

b –-Other foreign currency checks

- BANKS

a - Other foreign banks (including assets which have been deposited to foreign banks established in OECD countries as a collateral or blocked and which the bank cannot freely use)

- LOANS

a - Other loans

- LOANS UNDER FOLLW-UP (NET)

- FIXED ASSETS (NET) (excluding expense values (special costs), fixed assets acquired by financial leasing and real property subject to 0 % risk weight)

- SUBSIDIARIES, AFFILIATES AND INVESTMENT SECURITIES

a- Shares issued by non-financial subsidiaries and affiliates

b- Other investment securities excluding those with 0 % and 20 % risk weight

- MISCELLANOUS RECEIVABLES

a - Miscallenous receivables not included in other risk groups

- OTHER ASSETS (other accounts classified under the “other assets” in the quarterly statement of account including assets being used as a lessee under a financial leasing agreement, but excluding "preliminary expenses", "special duty accounts", "pre-paid expenditures", "pre-paid taxes account", "other claims on central governments and central banks of OECD countries and those guaranteed by central governments and central banks of OECD countries", "inter-branch transfer accounts", "gold", "securities subject to 0 % risk weight” and “other receivables secured by cash or Treasury guarantee”)

- GUARANTEES AND UNDERTAKINGS

A)"Bank acceptances" which have not been subject to risk weight in other risk groups

B)"Guaranteed preliminary financings" which have not been subjected to risk weight in other risk groups

C)"Sale transactions related to bank's assets with reverting risk" which have not been subject to risk weight in other risk groups

D)Other guarantees and undertakings issued (other than those subject to 0 %, 20 % and 50 % risk weight)

- FOREIGN EXCHANGE AND INTEREST RATE RELATED TRANSACTIONS (In foreign exchange and interest rate related transactions, receivables from the counterparty which have the same characteristics with loans subject to 100 % risk weight; amounts weighted by credit conversion rate)

- INTEREST AND INCOME ACCRUALS (for items subject to 100 % risk weight)

ANNEX: 2

CAPITAL ADEQUACY ANALYSIS FORM
BASED ON CONSOLIDATED FINANCIAL STATEMENTS

(As of ../../.....)

I - CORE CAPITAL (Including interests outside the group)

A) Paid-up capital

B) Legal reserves

C) Optional reserves and reserves for probable losses

D) Total of net profit for the period and previous years' profit

E) Total of loss for the period and previous years' losses (-)

II - SUPPLEMENTARY CAPITAL (Including interests outside the group, if any)

A) General loan reserves

B) Fixed asset revaluation fund (including reserves for cost value increase adjustment, shares of subsidiaries and affiliates to be included in capital and proceeds from the sale of real property)

C) Revaluation fund calculated for the fixed assets as specified in the definition of supplementary capital in Article 4, paragraph 4 of Regulation on the Establishment and Operations of Banks.

D) Provisions for revaluation of fixed assets of subsidiaries and affiliates (including those related to other participations held for the purpose of acquiring an interest in capital and booked among securities)

E) Subordinated debts

F) Free reserves for probable risks

G) Securities value increase (revaluation) fund (including negative consolidation goodwill (net))

III- TIER 3 CAPITAL

IV - CAPITAL (Regarding the limits specified in the Regulation: I + II + III)

V - ASSETS DEDUCTED FROM CAPITAL

A) All capital participations to the unconsolidated financial institutions which mainly operate in money and capital markets or insurance sector with permissions and licenses defined in specific acts in these fields and investments to such financial partnerships which have been applied equity method, but the assets and liabilities of which have been unconsolidated

B) Special expense values (cost accounts)

C)Difference between the fair value and the book value, if the fair value of unconsolidated subsidiaries, affiliates, investments in other participations, consolidated fixed assets and investments to such financial partnerships which have been applied equity method, but the assets and liabilities of which have been unconsolidated are below their book value

D)Preliminary expenses

E) Pre-paid expenses

F) "Subordinated loans" extended to other banks operating in Turkey

G) Consolidation goodwill

H) Capitalised costs

VI - OWN FUNDS (IV - V)

VII - RISK-WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

A) 0% risk weight

B) 20% risk weight

C) 50% risk weight

D) 100% risk weight

E) Market risk exposure (Such amount shall be calculated in accordance with principles and procedures set out in Section 3 and included in standard capital adequacy ratio)

TOTAL

STANDARD CAPITAL ADEQUACY RATIO (VI / VII) %

SUPPLEMENTARY CAPITAL / CORE CAPITAL (II/I) %

SUBORDINATED TERM LOANS /CORE CAPITAL (IIE/I) %

RISK-WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

0% RISK WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

- CURRENT ASSETS
    a – Cash in vault
    b– Cash in foreign currency
    c – Cash to be received (Cash in transit)

- BANK ACCOUNTS
    a– Accounts with Central Bank

- INTERBANK MONEY MARKET
- RECEIVABLES FROM REVERSE REPO TRANSACTIONS

a-Receivables from reverse repo transactions performed with securities issued or guaranteed by the Treasury, the central governments and the central banks of OECD countries or revenue participating certificates subject to 0% risk-weight.

- RESERVE REQUIREMENTS AND OTHER SIMILAR LEGAL REQUİREMENTS

- LOANS
    a - Loans collateralised by cash
    b – Loans extended to Central Bank and Treasury and loans guaranteed by the Treasury
    c - Loans collateralised by securities issued by the Treasury and securities guaranteed

by the Treasury

d - Loans guaranteed by the central governments and the central banks of OECD countries, loans collateralised by securities issued or guaranteed by the central governments and the central banks of OECD countries

e - Loans extended from Funds established by laws and Decrees, whose risk is not taken by the intermediary bank

f - Loans which are collateralised by the bank's own securities (except mutual funds)

g – Loans extended to Export Credit Bank of Turkey

- MISCELLANEOUS RECEIVABLES

a - Receivables from funds

b - Securities subject to 0% risk weight and claims collateralised by guarantees of central governments and the central banks of OECD countries, the Treasury and by cash

c - Special accounts with Central Bank

- INVESTMENT SECURITIES (NET)

a - Treasury bills, government bonds, revenue participating certificates issued by Public Participation Administration and Privatization Administration, securities issued under the guarantee of the Treasury, securities issued by central governments and central banks of OECD countries or securities guaranteed by them, gold and due securities (related with securities having 0 % weight) monitored in investment securities.

- PRE-PAYMENTS FOR ASSETS ACQUIRED BY FINANCIAL LEASING

a – Pre-payments for assets acquired by financial leasing, including securities subject to 0 % risk weight and those collateralised by guarantees of the central governments and central banks of OECD countries and those collateralised by cash pledge or Treasury guarantee

- FIXED ASSETS (NET)

a - Real property, which banks compulsorily acquire and include in their assets pursuant to provisions of applicable laws, decrees and other regulations, other than

they acquire on account of their receivables pursuant to paragraph two of Article 12 of the Banks Act

- OTHER ASSETS

a - Pre-paid taxes

b - Special duty accounts (Claims from Treasury)

c - Other claims on central governments and central banks of OECD countries, other claims guaranteed by the central governments and central banks of OECD countries, securities subject to 0% risk weight and other receivables collateralised by cash and Treasury guarantee

d – Inter-branch transfer accounts

e - Gold

- GUARANTEES AND UNDERTAKINGS

a - Guarantees and undertakings collateralised by cash pledge

b - Guarantees and undertakings extended to the Treasury and the Central Bank and secured by the Treasury guarantee

c- Guarantees and undertakings collateralised by securities issued or guaranteed by the Treasury

d- Guarantees and undertakings collateralised by the central governments and central banks of OECD countries, and guarantees and undertakings collateralised by securities issued or guaranteed by central governments and central banks of OECD countries

e - Guarantees and undertakings collateralised by securities issued by banks (excluding mutual funds)

f - Endorsements

- COMMITMENTS

a - Revocable contingencies which can be unconditionally cancelled by the bank (or by the financial partnership consolidated by the parent bank)

- FOREIGN EXCHANGE AND INTEREST RATE RELATED TRANSACTIONS (In foreign exchange and interest rate related transactions, receivables from the

counterparty which have the same characteristics with loans subject to 0 % risk weight; amounts weighted by credit conversion rates)

- INTEREST AND INCOME ACCRUALS (for items subject to 0 % risk weight)

20 % RISK WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

- CURRENT ASSETS

a - Bank checks denominated in a foreign currency drawn / purchased by banks in OECD countries

- BANK ACCOUNTS

a - Accounts in domestic banks

b - Claims on banks of OECD countries which are not collateral, not blocked and which can be freely used by the bank except maturity

c – Accounts in head offices or any other overseas branches of foreign banks operating in Turkey

- RECEIVABLES FROM REVERSE REPO TRANSACTIONS

a-Receivables from reverse repo transactions on securities issued or guaranteed by the banks of OECD countries

b- Receivables from reverse repo transactions on securities issued or guaranteed by other securities

- SPECIAL FINANCE HOUSES

- LOANS

a- Loans collateralised by counter guarantees of banks operate in Turkey

b- Loans collateralised by counter guarantees of banks in OECD countries

c- Loans collateralised by securities issued or guaranteed by banks in OECD countries

d- Loans extended to intermediary institutions operating in capital markets of OECD countries, which are subject to prudential supervision and regulation including

risk-based capital obligation, or loans collateralised by a guarantee or undertaking of such institutions

MISCALLENEOUS RECEIVABLES

a- Claims on intermediary institutions operating in capital markets of OECD countries, which are subject to prudential supervision and regulation including risk-based capital obligation, or claims collateralised by a guarantee or undertaking of such institutions

- INVESTMENT SECURITIES (NET)

a - Securities issued or guaranteed by banks in OECD countries, mutual fund shares and due securities (related to securities subject to 20 % risk weight) which monitored in investment securities.

- PRE-PAYMENTS FOR ASSETS ACQUIRED BY FINANCIAL LEASING

a- Pre-payments for assets acquired by financial leasing purposes collateralized by counter-guarantees of banks in OECD countries or by securities issued or guaranteed by banks in OECD countries.

- GUARANTEES AND UNDERTAKINGS

a -Guarantees and undertakings collateralised by counter-guarantees of banks operate in Turkey

b -Guarantees and undertakings collateralised by counter-guarantees of banks in OECD countries

c -Guarantees and undertakings collateralised by securities issued or guaranteed by banks in OECD countries

d - Letters of preliminary and performance guarantees (except those which are subject to 0 % risk weight)

e-"Letters of credit" with a maturity of up to one year, which are automatically redeemed and secured by a "shipment" obligation.

- COMMITMENTS

a -Other revocable commitments

- FOREIGN EXCHANGE AND INTEREST RATE RELATED TRANSACTIONS (In foreign exchange and interest rate related transactions, receivables from the counterparty which have the same characteristics with loans subject to 20 % risk weight; amounts weighted by credit conversion rate)

- INTEREST AND INCOME ACCRUALS (for items subject to 20 % risk weight)

- ACCOUNTS WHICH ARE NOT RISK WEIGHTED IN THIS SCHEDULE AS SPECIFIED IN PARAGRAPH (5) OF ARTICLE 4 OF THE REGULATION

50 % RISK WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS

- LOANS

a - Loans secured by a prior lien mortgage on a property which is used for residence

b - Loans secured by a prior lien mortgage on registered lands and properties within the boundaries of a municipality

- RECEIVABLES FROM FINANCIAL LEASING TRANSACTIONS

- ASSETS ACQUIRED BY FINANCIAL LEASING (NET) (Lands, buildings, establishments, machines and equipment, vehicles and other assets acquired by financial leasing contract and included in banks' fixed assets pursuant to the Financial Leasing Law and Tax Procedures Law and pre-payments for assets acquired by financial leasing other than those to which 0 % and 20 % risk weight is applied)

- GUARANTEES AND UNDERTAKINGS

a - Other letters of guarantee (other than those which are subject to 0 % and 20 % risk weight)

b - Guarantees and undertakings secured by a prior lien mortgage on a property used for residence

c- Guarantees and undertakings secured by first mortgage on registered lands within the boundaries of a municipality

d - Other letters of credit (other than those subject to 0 % and 20 % risk weight)

- COMMITMENTS

a - Underwriting of bond issue

b - Non-revocable commitments (other than those subject to 0 %, 20 % and 100 % risk weight)

-OTHER OFF-BALANCE SHEET ACCOUNTS

a - Underwriting and undertaking of securities

- INTEREST AND INCOME ACCRUALS (for items subject to 50 % risk weight)

<u>100 % RISK WEIGHTED ASSETS, NON-CASH CREDITS AND OBLIGATIONS</u>

- CURRENT ASSETS

a - Due securities (related to securities subject to 100 % risk weight)

b - Other foreign currency checks

- BANKS

a - Other foreign banks (including assets which have been deposited to foreign banks established in OECD countries as a collateral or blocked and which the bank cannot freely use)

- LOANS

a - Other loans

- LOANS UNDER FOLLOW-UP (NET)

- FIXED ASSETS (NET) (excluding special expense values (special cost accounts), fixed assets acquired by financial leasing and real property subject to 0 % risk weight)

- SUBSIDIARIES, AFFILIATES AND INVESTMENT SECURITIES

a- Shares issued by non-financial and unconsolidated subsidiaries and affiliates

b- Other investment securities excluding those with 0 % and 20 % risk weight

- MISCELLANOUS RECEIVABLES

a - Miscallenous receivables not included in other risk groups.

- OTHER ASSETS (other accounts classified under the “other assets” in the quarterly statement of account including assets being used as a lessee under a financial leasing agreement, but excluding "preliminary expenses", "special duty accounts", "pre-paid expenditures", "pre-paid taxes account", "other claims on central governments and central banks of OECD countries and those guaranteed by central governments and central banks of OECD countries", "inter-branch transfer accounts", "gold", "securities subject to 0 % risk weight” and “other receivables secured by cash or Treasury guarantee”).

- GUARANTEES AND UNDERTAKINGS

a)"Bank acceptances" which have not been subject to risk weight in other risk groups

b)"Guaranteed preliminary financings" which have not been subjected to risk weight in other risk groups

c)Sale transactions related to assets of the bank or of the financial partnership consolidated by the parent bank, with “reverting risk" which have not been subject to risk weight in other risk groups

d)Other guarantees and undertakings issued (other than those subject to 0 %, 20 % and 50 % risk weight)

- FOREIGN EXCHANGE AND INTEREST RATE RELATED TRANSACTIONS (In foreign exchange and interest rate related transactions, receivables from the counterparty which have the same characteristics with loans subject to 100 % risk weight; amounts weighted by credit conversion rate)

- INTEREST AND INCOME ACCRUALS (for items subject to 100 % risk weight)

ANNEX: 4

Explanations on Part 3 Section 5 -Principles and Procedures concerning the incorporation of market risk of options into the calculation of capital adequacy standard ratio- of this Regulation

1. In some complicated foreign exchange transactions, it may be unclear which side is the "underlying security"; this should be taken to be the asset, which would be received if the option were exercised. In addition, the nominal value should be used for items where the market value of the underlying instrument could be zero, e.g. caps and floors, swaptions (the option which gives the right to receive fixed interest (floating interest) in return for floating interest (fixed interest)) etc.

2. Some options (e.g. where the underlying is an interest rate, a currency or a commodity) bear no specific risk, but specific risk will be present in the case of options on certain interest rate-related instruments (e.g. options on a corporate debt security or corporate bond index) and for options on equities and stock indices .The charge under this measure for currency options will be 8%.

3. For options with a residual maturity of more than six months, the strike price should be compared with the forward, not current, price.

4. Where the position does not fall within the trading book (i.e. options on certain foreign exchange or commodities positions not belonging to the trading book), it may be acceptable to use the book value instead.

5. Agency may require banks doing business in certain classes of exotic options (e.g. barriers, digitals) or in options "at-the-money" that are close to expiry to use either the scenario approach or the internal models, taking the procedures mentioned in risk regulation into account.

6. For instance, a call option on a June three-month interest-rate future will in April be considered, on the basis of its delta-equivalent value, to be a long position with a maturity of five months and a short position with a maturity of two months. The written option will be similarly slotted as a long position with a maturity of two months and a short position with a maturity of five months.

7. The basic rules set out here for interest rate and equity options only captures general market risk. Banks which handle significant amount of options positions whose underlying is an equity or interest rate related instrument, shall take the specific risk into account when calculating gamma capital charges.

8. e.g. EUR/USD, JPY/GBP