

**PROCEDURE ON CENTRAL COUNTERPARTY SERVICE
TO BE PROVIDED BY ISTANBUL SETTLEMENT AND CUSTODY BANK
INC. TO BORSA ISTANBUL INC. FUTURES AND OPTIONS MARKET AND
THE CLEARING AND SETTLEMENT PRINCIPLES
REGARDING THIS SERVICE**

List of the Procedure amendments:

1. *Published by the General Letter numbered 1357, dated June 09, 2017.*
2. *Published by the General Letter numbered 1373, dated October 05, 2017.*
3. *Published by the General Letter numbered 1403, dated February 06, 2018.*
4. *Published by the General Letter numbered 1415, dated March 29, 2018.*

**CHAPTER ONE
General Principles**

Purpose

ARTICLE 1- (1) The purpose of this Procedure is to regulate the principles and procedures regarding membership, collateral, clearing and settlement, default, discipline, revenues and other issues related to the central counterparty service to be provided by Istanbul Settlement and Custody Bank Incorporation as the central clearing and settlement institution to Borsa Istanbul Futures and Options Market.

Scope

ARTICLE 2- (1) This Procedure covers the matters regarding membership, collateral, clearing and settlement, default, discipline, revenues and other issues related to central counterparty services to be provided by Istanbul Settlement and Custody Bank Incorporation as the central clearing and settlement institution to Borsa Istanbul Futures and Options Market.

Basis

ARTICLE 3- (1) This Procedure has been prepared on the basis of Article 77 and 78 of the Capital Markets Law No. 6362 published in the Official Gazette dated 30.12.2012 and numbered 28513, Istanbul Settlement and Custody Bank Incorporation Central Clearing and Settlement Regulation published in the Official Gazette dated 18.07.2013 and numbered 28711, and Istanbul Settlement and Custody Bank Incorporation Central Counterparty Regulation published in the Official Gazette dated 14.08.2013 and numbered 28735, and Directive on Central Counterparty Service to be Provided by Istanbul Settlement and Custody Bank Inc. to Borsa Istanbul Inc. Futures and Options Market and the Clearing and Settlement Principles Regarding This Service.

Definitions and Abbreviations

ARTICLE 4- (1) Terms used in this Procedure shall bear the following meanings;

a) Open offer method: The method where Takasbank interposes itself between the market participants and becomes buyer against the seller and seller against the buyer at the time the transaction is matched,

b) Exchange: Borsa Istanbul Inc.,

c) BISTECH: Integrated software applications for pre-trade, at trade and post trade Market operations,

- d) BISTECH Margin Method: Delta hedge methodology used for the calculation of margin requirement based on the portfolio based risk management algorithm on BISTECH,
- e) EWR: Electronic Warehouse Receipt,
- f) Pre-Order/Pre-Trade Risk Management: The process of the control of collateral adequacy by using parameters calculated, considering the matching probability of orders placed and the algorithm within the framework of 'BISTECH Pretrade Risk Management-PTRM Application Principles '
- g) General Manager : The General Manager of Istanbul Settlement and Custody Bank Inc.,
- h) General Regulation : The General Regulation on the Establishment and Operating Principles of the Central Clearing and Settlement Institutions published in the Official Gazette dated 30.5.2013 and numbered 28662,
- i) Trading Institution : The institution that has the authority to execute trade in the market but performs the settlement of the obligations relating to such transactions through a general clearing member,
- j) Trade Collateral: Collateral deposited to the depository or the trading and depository accounts opened with Takasbank for the purpose of buying or selling Futures and Options Contracts in the Market,
- k) Law : Capital Markets Law No. 6362 published in the Official Gazette dated 30.12.2012 and numbered 28513,
- l) Board : Capital Markets Board,
- m) Central Counterparty Regulation: Istanbul Settlement and Custody Bank Inc. Central Counterparty Regulation published in the Official Gazette dated 14.8.2013 and numbered 28735,
- n) CRA : The Central Registry Agency Incorporation,
- o) Central Clearing and Settlement Regulation: Istanbul Settlement and Custody Bank Inc. Central Clearing and Settlement Regulation published in the Official Gazette dated 18.7.2013 and numbered 28711
- p) Option Contracts: Contracts that provide the right to buy or sell an economic and financial indicator, capital market instrument, asset, precious metal or foreign currency of a predetermined quantity, quality and price, at or up to a specified date in future,
- q) Market : Borsa Istanbul Inc. Futures and Options Market,
- r) Procedure: This Procedure on Central Counterparty Service to be Provided by Istanbul Settlement and Custody Bank Inc. to Borsa Istanbul Inc. Futures and Options Market and the Clearing and Settlement Principles Regarding This Service that includes the procedures related to the operation and practices in accordance with the rules and principles stipulated in the Directive and is approved by the General Manager,
- s) PTRM: BISTECH pre-order/pre-trade risk management,

- t) PTRM Margin Calculation Methodology: Methodology defined in the “BISTECH Pre-trade Risk Management-PTRM Application Principles” published by the Exchange,
- u) Derivative Instruments: The futures and options contracts and other derivative instruments that are traded on the market,
- v) Clearing and settlement: All of the processes that enable the funds and/or assets to be transferred by Takasbank between the parties, where the Members fulfill the obligations arising in relation to the transactions executed in the Market, within the time period and on the conditions set forth by Takasbank upon taking the opinion of the Exchange,
- w) Takasbank: Istanbul Settlement and Custody Bank Inc.,
- x) CBRT: The Central Bank of the Republic of Turkey,
- y) Member: Institutions that are found eligible by Takasbank to become a party to the rights and obligations arising from the transactions executed in the market as well as to the settlement of these rights and obligations,
- z) Futures Contracts: Contracts that give the obligation to buy or sell an asset, precious metal, economic and financial indicator, capital market instrument or foreign currency of a predetermined quantity, quality and price, at a specified date in future,
- xx) Directive: Directive on Central Counterparty Service to be Provided by Istanbul Settlement and Custody Bank Inc. to Borsa Istanbul Inc. Futures and Options Market and the Clearing and Settlement Principles Regarding This Service,
- xy) Board of Directors: The Board of Directors of Takasbank.

CHAPTER TWO

Guideline for Membership

Membership

ARTICLE 5- (1) Investment institutions that are defined in the Law and satisfy the membership conditions prescribed in article 8 of the Procedure may become a member of the central counterparty practice to be provided by Takasbank for the transactions executed in the Market provided that they are authorized by the Board of Directors.

Membership types

ARTICLE 6- (1) The members are divided into two groups: direct clearing member and general clearing member.

(2) Direct clearing members are authorized to perform only the clearing and settlement transactions of themselves and/or of their clients.

(3) General clearing members are authorized to perform the clearing and settlement transactions of the trading institutions in addition to the clearing and settlement transactions of themselves and/or of their clients.

(4) The general and direct clearing membership classification is made by taking the amount of equity capital held by the Member, the adequacy of its internal systems and technical infrastructure into consideration as well as other internal rating, financial analysis and intelligence studies carried out by Takasbank.

Transition between membership types

ARTICLE 7 - (1) The membership status of the general and direct clearing members may be changed by pursuing their compliance with the conditions set forth by Takasbank. In this context, a direct clearing member may be accepted later as a general clearing member or a general clearing member may also be accepted later as a direct clearing member.

(2) General clearing members may apply to become a direct clearing member. The applications of the general clearing members in this direction may be accepted by Takasbank provided that all rights, obligations and accounts, if any, relating to the trading institutions of whose clearing and settlement transactions executed are transferred or settled completely.

(3) The applications for general clearing membership by the direct clearing members who meet the eligibility requirements for the general clearing membership shall be finalized by Takasbank within 2 months.

(4) In case the members who lost the eligibility requirements for general clearing membership fail to meet the relevant criteria within the time period set forth by the Board of Directors, they may be authorized as a direct clearing member from the date the loss of eligibility is notified to them by Takasbank provided that they satisfy the conditions set out in the first paragraph of article 8. In this case, the transfer or liquidation of all rights, obligations and accounts, if any, relating to the trading institutions whose clearing and settlement transactions are executed should have been completed. If there has been a failure to fulfill such obligation then, the provisions of Article 13 regarding to operation restriction shall apply to the relevant Member.

(5) In case of any transition between the membership types, the Board and the Exchange shall be notified within 1 day subsequent to the decision made for the aforementioned transition and the state of affairs shall be announced in Takasbank web site accordingly.

Membership conditions

ARTICLE 8 - (1) In addition to the conditions set out in article 7 of the Central Counterparty Regulation, the following conditions must also be met to become a direct clearing member:

a) Holding the limited or general custody service license pursuant to article 59 of the Communiqué on Principles Regarding Investment Services and Ancillary Services of the Board published in the Official Gazette dated 11.07.2013 and numbered 28704,

b) Being a member of the Market in the Exchange in accordance with the Exchange legislation,

c) Banks to hold TL 50.000.000 and the brokerage houses to hold TL 10.000.000 as the minimum amount of equity capital,

ç) Receiving at least D rating note as a result of the internal rating study conducted by Takasbank within the scope of third paragraph,

d) Signing of the Market Clearing and Settlement Membership Agreement,

e) Submission of the declaration approved by the Board of Directors of the Members wishing to trade at the Market and which has been related to the data processing, risk management, internal control and internal audit systems, in a format suitable for the template set by Takasbank. .

(2) In addition to the conditions listed in items (d) and (e) of the first paragraph, the following conditions must also be met to become a general clearing member:

a) Having obtained the operating permit related to general custody service which enables the the custody of positions and collateral arising from the transactions conducted pursuant to the relevant legislation,

b) Banks to hold TL 500.000.000 and the brokerage houses to hold TL 100.000.000 as the minimum amount of equity capital,

c) Receiving at least B rating note as a result of the internal rating study conducted by Takasbank within the scope of third paragraph.

(3) In the context of internal rating study conducted by Takasbank to determine the rating note of the company, the financial statements of such company, its annual report, company introductory information form, company key information form, its transaction volumes in the markets, TL custody balances, the latest status of accounts opened on customer basis, default and intelligence information concerning the company, and the credit ratings received from the rating agencies, if any, and the market intelligence information as well as the news featured in visual and printed media are used. Takasbank announces the parameters the internal rating methodology adopts as well as the effects thereof, at its web site.

(4) Takasbank is authorized to determine the minimum criteria it would seek for technical infrastructure, data processing, risk management, internal control and internal audit systems, to give time to the institutions for compliance which fail to meet the prescribed criteria, to get commitment and to check whether the criteria have been met.

(5) The Board of Directors is authorized to increase the minimum amount of equity capital stated in item (c) of the first paragraph and in item (b) of the second paragraph or to decrease it up to its previous level thereof by the approval of the Board by taking the relevant capital markets and banking regulations as well as the market conditions into consideration.

Membership application and commencement of operations

ARTICLE 9- (1) The institutions applying for membership are required to submit their application request addressed to the General Management of Takasbank together with a letter accompanied by the information and documents affirming the fulfillment of the prescribed requirements for membership in this Procedure and to send the following documents appended as attachments to this letter thereof to Takasbank.

- a) Having taken all necessary measures for the establishment of the technical infrastructure and its functionality thereof to perform their transactions with Takasbank,
- b) Copy of the articles of association,
- c) Notarized copy of the signature circular,
- ç) Declaration of incorporation published in the Turkish Trade Registry Gazette,
- d) Membership application form,
- e) Copy of the authorization certificate,
- f) Document issued by the Exchange which verifies that the investment institutions applying for a direct clearing membership are actually operating in the Market,
- g) Membership Agreement and Pre-Agreement Information Form,
- ğ) Letter of Undertaking for Cash, Assets, Collateral, RTGS Delivery versus Payment (DvP) and Electronic Funds Transfer (EFT) Instruction,
- h) Implementation Agreement Relating to the Customer Instructions to be delivered to Istanbul Settlement and Custody Bank Inc. via Fax Machine,
- i) Other documents that may be required by Takasbank in accordance with the relevant legislation.

(2) For the membership applications to be eligible for assessment by Takasbank, the information and documents stated in the first paragraph of this article as well as other documents that may be requested by Takasbank must have been completed. The applications shall be assessed by Takasbank within 60 days following the submission of the application in an accurate and complete manner, in terms of whether the conditions specified in article 8 have been met or not. The final decision made within 2 months, by Takasbank on the application shall be notified to those concerned in writing with its justification.

(3) In order to commence its operations with Takasbank, the institution whose membership application is accepted, should within 1 month from the date the notice for the approval of its membership application;

- a) pay the membership entrance fee,
- b) deposit the membership collateral,
- c) pay the Guarantee Fund contribution amount, and
- d) authorize the personnel who will execute transactions on behalf of the Member in Takasbank system. Otherwise the membership right granted to the relevant institution shall be cancelled. The date on which

such obligations are fulfilled shall be deemed to be the date that the institution has become a member of the central counterparty service provided to the Market, and the Member shall be entitled to execute transactions after this date accordingly. The Member who fails to fulfill the conditions stipulated in items (a) and (b) and (c) of this paragraph cannot perform any account opening transaction.

General obligations of the members

ARTICLE 10 – (1) The Members are required to comply with the following issues:

- a) Act in accordance with all the rules and principles laid down for the central counterparty service by the Procedure and other relevant legislation,
- b) Act in accordance with the principles of honesty and good faith towards their customers and other Members, pay the guarantee fund contribution amounts stipulated by Takasbank,
- c) Take all necessary precautions to ensure the sustainability of internal control, risk management and internal audit mechanisms necessary to become a central counterparty member,
- d) In cases where the member accounts as well as their associated sub-accounts held with Takasbank are need to be transferred and if the general clearing member who will take over these accounts has been determined beforehand; to include information about such matter in the framework agreements entered into by their customers,
- e) Act in accordance with all rules and principles stipulated in the Law and other relevant legislation related to the monitoring and custody of the customer assets and collaterals,
- f) Perform all dues, fees and commission payments and other liabilities required by Takasbank in due time,
- g) Constitute a continuous reconciliation between the single or multiple position and collateral accounts held with Takasbank and the records related to customer positions and collaterals held with them,
- h) Ensure that their customers are informed in an accurate and complete manner about the structure of the accounts where the collaterals are monitored and the scope of segregation made by Takasbank as wells as the fact that the power of disposition on the collateral accounts opened with Takasbank belongs to the Member and this power is restricted by Takasbank as to be limited only to the collateral required to be held,
- i) Deposit the collaterals of their customers to the relevant collateral accounts with Takasbank,
- j) Provide all types of information and documents that may be requested on issues deemed necessary by Takasbank and the Board related to their business and transactions falling under the scope of this Procedure, and provide all types of support in the investigations to be carried out by those authorized by Takasbank and the Board,
- k) Keep the records required by Takasbank, draw up the information and documents in due form; and convey them to Takasbank either periodically or when they are requested by Takasbank, and maintain such documents for a period of 2 years,

1) Fulfill other obligations within the scope of the Procedure within the prescribed time limit and in a complete manner.

(2) If any Member foresees that it will be unable to either partially or completely fulfill its obligations, this Member is required to notify such situation immediately to the Board and Takasbank together with all substantiating information and documents describing its reasons thereof. Such notification shall not constitute an impediment for Takasbank to take the necessary precautions stipulated in this Procedure.

Responsibilities of the General Clearing Members

ARTICLE 11 – (1) The general clearing member performing the clearing and settlement operations of a trading institution shall be unconditionally responsible towards Takasbank for fulfilling the obligations related to the transactions conducted by the relevant institution through itself. The general clearing member performing the clearing and settlement operations and the trading institution of whose clearing and settlement operations are performed by that member shall be jointly and severally liable as debtor towards Takasbank for the obligations arising from the trading institution's transactions of itself and of its customers that are executed through the relevant general clearing member.

(2) A general clearing member shall be responsible for tracking whether the responsibilities set forth in article 12 have been actually fulfilled by the trading institutions whose clearing and settlement operations are performed by that member; taking all necessary measures in cases where it is determined that such obligations have not been fulfilled; and acting in accordance with the provisions set forth in the third paragraph of the same article in cases where it is also determined that such obligations have still not been fulfilled despite the measures.

(3) The general clearing member shall be relieved from its responsibilities specified in the second paragraph provided that all rights, obligations and accounts of the relevant trading institution towards Takasbank resulting from its transactions executed in the Market are transferred to another general clearing member or winded-up.

Responsibilities of the Trading Institutions

ARTICLE 12– (1) The positions and collaterals of the trading institutions are monitored in the exclusively opened sub-accounts connected to the general clearing members.

(2) The trading institutions shall be liable for complying with the following issues:

- a) Comply with the arrangements in the Procedure related to the collateralization procedures and monitoring of the customer positions and collaterals held both with them and with the relevant general clearing member,
- b) Act in accordance with all rules and principles laid down in the Law and other relevant regulations related to the monitoring and custody of customer assets and collaterals,
- c) Constitute continuous reconciliation between the accounts of their customers held with the general clearing member to whom they are affiliated to and the records related to the customer positions and collaterals held with them,
- d) Ensure that their customers are informed in an accurate and complete manner about the fact that the power of disposition on the collateral accounts of their customers opened with the general clearing

member belongs to the relevant general clearing member and this power is restricted by Takasbank as to be limited only to the collateral required to be held,

e) Provide all types of information and documents that may be requested on issues deemed necessary by the relevant general clearing member, Takasbank and the Board related to their business and transactions falling under the scope of the Procedure, and provide all types of support in the investigations to be carried out by those authorized by Takasbank and the Board.

(3) If it is determined by the relevant general clearing member that a trading institution has failed to fulfill the obligations referred to in the second paragraph either partially or completely, then it shall immediately notify Takasbank about this situation together with all information and documents substantiating non-fulfillment of such obligations; and take all necessary measures to overcome these discrepancies thereof.

(4) In cases where the relevant trading institution has failed to fulfill its obligations despite all precautions taken by the general clearing member; the customer positions and collaterals of the trading institution, upon request of the relevant general clearing member to Takasbank, shall be transferred to the relevant general clearing member making the request in accordance with the agreement between each other. The trading institution shall provide the ownership information related to the transferred customer positions and collaterals to the Member who takes over them. The Board, the Exchange and the relevant public authority shall be notified by Takasbank, within 1 business day, about the transfer operation through which the customer collaterals and positions are taken over from the relevant general clearing member together with the reasons of such transfer thereof.

(5) The provisions stipulated in other regulations for the trading institutions to which they are subject to shall be reserved.

Restriction on Market trading operations of the Members

ARTICLE 13- (1) Operations of the Members under this Procedure may be restricted by Takasbank in the following situations.

a) Restriction or temporary suspension of the Members' operations in the markets and/or capital market instruments where the clearing and settlement service is provided pursuant to article 13 of the Central Clearing and Settlement Regulation and/or article 14 of Central Counterparty Regulation,

b) Failure to fulfill obligations stipulated in the Directive, the Procedure and the membership agreement,

c) Identification of any unfavorable situation related to the Member, such as protest, seizure, provisional injunction, temporary or permanent suspension of its activities, cancellation of its relevant operating permit, prohibition to execute transaction related to capital market instruments traded on the Market for any reason, or decision on its gradual liquidation or bankruptcy,

d) As a result of the intelligence, financial analysis and/or rating studies periodically conducted by Takasbank; determination of the fact that the credit worthiness of the Member is either diminished or does not exist,

(2) The Members cannot conduct transactions on accounts belonging to those people who have been banned from trading by the Board or imposed similar limitations.

(3) If any situation referred to in this article occurs, Takasbank may resolve the outstanding positions of the Member to be liquidated either partially or wholly in accordance with the default management process provisions of article 62.

(4) If the Member's operations are restricted for reasons referred to in this article, this situation shall be immediately notified to the Exchange, the Board and to the relevant public authority.

Termination of membership

ARTICLE 14- (1) The membership may be terminated in accordance with the relevant provisions of article 13 of the Central Clearing and Settlement Regulation and the provisions of article 15 of the Central Counterparty Regulation.

CHAPTER THREE

Account Operations

Account types

ARTICLE 15- (1) Three different types of accounts can be opened with Takasbank; "Trading Account", "Depository account" and "Trading and Depository account".

(2) Trading Account is an account that the buying and selling transactions in the Market can be executed but no position and collateral monitoring can be carried out; and the orders and transactions are followed on this type of accounts. A trading account opened with Takasbank can only be eligible to execute transaction in the Market upon the association of this account with a depository account and the approval of this operation by the Member to whom such depository account belongs. A trading account can be associated with only one depository account.

(3) Depository account is an account that the positions, the risks related to the positions and the collaterals can be monitored but no transaction can be conducted. A depository account can be associated with more than one trading account.

(4) Trading and Depository account is an account where the transactions can be conducted and the positions and the risks related to such positions and collaterals are also kept and monitored.

(5) In addition to the account types mentioned in the first paragraph, Takasbank opens two technical accounts "DA" and "DE-IACL" for each member. These accounts will be used in order to transfer transactions executed accidentally in the wrong account. There shouldn't be any order entered and no transactions should be executed in these accounts. In this regard, these DA and DE-IACL accounts should be checked periodically by the members and positions should be emptied to the right accounts via rectify trade function. In case there are positions in these account at the end of each daily session, Takasbank transfers them to the portfolio account on behalf of the member.

Account opening

ARTICLE 16 – (1) The accounts on which the transactions will be conducted should have been defined in BISTECH.

(2) In order for the relevant accounts to be opened in BISTECH, the identity information of such account holders and other information should be defined with CRA in the first place. The relevant accounts shall be opened with BISTECH after the identity information related to opened accounts is sent by CRA to Takasbank.

(3) In order a newly opened account to be active in the Market; such account should have been opened with CRA until the time cited in article 21 for “Transfer deadline for the accounts opened at the CRA to BISTECH” and should be linked to relevant account template on BISTECH before session-end at T date. Accounts opened until the deadline cited in article 21 for “Transfer deadline for the accounts opened at the CRA to BISTECH”, can be continued to open/linked to templates on BISTECH until “BISTECH account opening/association deadline” in article 21. Accounts opened after session-end, can be active in the Market following day, after finalizing template-link transaction.

(4) Trading accounts should be opened by associating with the depository accounts where collaterals related to transactions conducted on such trading accounts and positions are monitored. Therefore, depository accounts should be opened before trading accounts. The associations between trading and depository accounts are essentially made by the Members through BISTECH terminals. For the accounts, no association operation shall be allowed after the “BISTECH account opening/association deadline” in the article 22. Orders shall not be sent from the trading accounts that are not linked with any depository account.

(5) The trading institutions are required to open an account with the general clearing member for both their own portfolios and their customers on whose behalf they wish to execute transaction.

(6) Accounts opened by general clearing members for non-clearing members at the CRA, “trading member-NCM” field should be filled. General clearing member should open the NCM accounts at the BISTECH via associating the accounts with the relevant templates.

Segregation

ARTICLE 17 – (1) Two different types of accounts can be opened with Takasbank; “Customer Account” and “Portfolio Account”. Customer Account is an account where the transactions executed by the Member with its customers are monitored. Portfolio Account, on the other hand, is an account where the transactions executed by the Member for its own portfolio are monitored. In the Market, the customer positions and collaterals are monitored separately from the Member’s own portfolio and collaterals. The positions and collaterals belonging to the Member’s own portfolio are monitored in a trading-depository or depository accounts opened according to article 16. Each member is required to have a portfolio account. Among those members who are qualified as a market maker in accordance with the Exchange legislation can also open a market maker account.

(2) It is essential that the Members monitor the customer positions on single-position accounts to be opened in Takasbank system. The collaterals related to the customer positions monitored through single-position accounts can only be used to liquidate obligations of the respective customer.

(3) Global (omnibus) accounts can be opened as to be limited to the transactions conducted within the scope of the portfolio management activities. Opening of the global accounts can be restricted on a member basis. Collaterals deposited by the Member to the collateral accounts of such a nature that are associated with the multiple-position accounts by Takasbank shall be deemed to belong to the Member.

Account Transfer

ARTICLE 18– (1) For the transfer of positions and collaterals, the principles and procedures specified in article 26 of the Central Counterparty Regulation shall be applied.

(2) The transfer of all open interest and collaterals of an account owned by a customer with a Member to the account of that customer with another Member is called “account transfer”. The account transfer operation is carried out over the records kept by Takasbank together with its relevant positions and collaterals. Except for the transfer operations to be carried out within the scope of the third paragraph, the member is required to obtain the written consent of its relevant customer for the account transfer operations and orders entered for the account transfer should be approved by the take-over member. Takasbank shall fulfill the account transfer requests by taking the compliance of the member, whose accounts to be transferred, with the limit and position restrictions. For real persons, this transfer should be in same real person accounts of different members.

(3) In case of transfer of the positions monitored through the accounts connected to the Member whose membership operations have been restricted or whose membership has been terminated, as well as of the collaterals related to such positions to another Member; the transfer operations shall be carried out by Takasbank;

a) in accordance with the provisions of the agreement in the event the transferee Member has already been designated in the agreement made between the transferor Member and Takasbank,

b) in accordance with the provisions of the agreement in the event that the transferor Member has made an agreement with the transferee Member until the date the transfer will be conducted even though the transferee Member has not been pre-determined in the agreement made between the transferor Member and Takasbank,

c) if a transferee Member can be found by Takasbank in the event no pre-determination has been made according to the provisions specified in items (a) and (b) of this paragraph.

(4) If the account transfer operations are carried out on the basis of the third paragraph, then the collaterals held in the transferred accounts cannot be withdrawn until the reconciliation between the records kept with the Member whose membership operations have been restricted or whose membership has been terminated and the records kept with Takasbank is completed. The transfer of collaterals and positions held in the accounts connected to the members against whom a liquidation process is initiated by administrative and judicial authorities or the remaining collaterals belonging to their customers shall be paid or handed over to the competent authorities determined by the Law by also taking the regulations of the Board into consideration.

(5) In cases where the Member’s operations in the relevant market or capital market instruments are restricted or its membership is terminated, the collateral amount that can be transferred or returned from the associated customer accounts shall be limited to the collateral amount to be remained after the variation margin amounts arising after the default are transferred to the accounts.

(6) *(Amendment Published by the General Letter numbered 1403, dated February 06, 2018)* Net interest amounts for those margin collaterals subject to transfer belong to transferring member if it is made after Interest Accrual Cut-off Time; those belong to transferred member if it is made before .

(7) In cases where no Member can be found to take over the positions and collaterals, or there is no sufficient time to find a Member, or if the accounts cannot be transferred due to collateral deficit or have collateral deficit after the settlement of the positions, then the relevant accounts shall be liquidated in accordance with the principles set out in Chapter Five of the Central Counterparty Regulation. Any collateral remaining after the settlement of the positions in the accounts that cannot be transferred due to the unavailability of a Member to take them over shall be returned in accordance with article 27 of the Central Counterparty Regulation.

Give-up

ARTICLE 19- (1) Give-up is the transfer of all positions as a result of transactions executed in the Market, from one member to another.

(2) After transactions executed, positions from a member's "trading and depository" or "depository" account to other member's "trading and depository" or "depository" account based on the triparty agreement among give up member, take up member and the investor. Until take-up party approves the transactions, give up member is responsible for all obligations arising from these positions subject to give up. After take up is done, all rights and obligations are transferred simultaneously to take up member.

(3) Give up transactions can be executed at the same date when the positions are taken, from the BISTECH terminals, until the fixing prices are published.

CHAPTER FOUR

Clearing and Settlement Principles

Takasbank's liability

ARTICLE 20– (1) Takasbank is the central counterparty with the open-offer method for the transactions executed in the Market. It undertakes to complete the settlement and clearing operations by acting as a buyer against the seller and as a seller against the buyer. Without prejudice to the limitations stipulated in article 36 of the Central Counterparty Regulation, Takasbank, as the central counterparty, assumes the clearing and settlement obligations arising from the transactions conducted in the Market by the Members in accordance with the principles and procedures specified in this Procedure and the legislation.

(2) In the open-offer method, the liability of Takasbank against the parties of the transaction starts at the moment when the buy and sell orders are matched and ends with the completion of the clearing and settlement. For the transactions being cancelled by the Exchange, the liability of Takasbank against the parties shall cease as of the moment the transaction is cancelled. If the limit that has been allocated by Takasbank to the Member on transaction basis in accordance with the fourth paragraph of article 5 of the Central Counterparty Regulation by taking into consideration of the Member's internal and external ratings, its equity and information about its past trading volumes, without prejudice to the provisions relating to the risk limits in the Article 32, is exceeded, then Takasbank shall not be liable for damages arising out of any transaction it has declined.

(3) For the transactions executed in the Market, Takasbank deals only with the Members. Takasbank shall not be liable for the obligations of the Members against their customers and of the general clearing members against the trading institutions.

(4) For the satisfaction of liquidity needs and compensation of damages that may arise as a result of any default, the provisions specified in Chapter Five of the Central Counterparty Regulation shall be applied.

General principles for clearing and settlement

ARTICLE 21 – (1) For all trade and transactions to be carried out within the scope of the Central Clearing and Settlement Regulation, the Directive and the Procedure, Takasbank shall deal only with the relevant Member regardless of whether such transactions belong to the customers of the Members or not. In this way, the relevant Member shall be deemed fully authorized to take delivery of any type of notice and perform any type of transaction including the margin call on behalf of their customers. In this context, if the obligation related to such accounts is failed to be fulfilled in due time despite the margin call made by Takasbank to the relevant Member for the customer transactions, Takasbank shall be deemed fully authorized for any type of disposition on the customer accounts including closing-out the positions and converting non-cash collaterals to cash in order to resolve the default without the need for any notification to the customers.

(2) The open interest in the portfolio and customer accounts opened by the Members with Takasbank, the Guarantee Fund contribution amounts and the cash and non-cash collaterals are made subject to an updating process by Takasbank. Takasbank may also perform the account updating operations more than once in a day.

(3) For the clearing and settlement of the transactions executed in the Market, delivery against payment principle shall be applied with respect to the relation between the Member and Takasbank. The member shall be responsible for paying its debt arising from the margin call until the end of clearing and settlement period.

(4) The transactions related to collateral deposit/withdrawal/valuation, account updating and fulfillment of the obligations shall be performed on account basis.

Periods related to the clearing and settlement operations

ARTICLE 22 – (1) (*Amendment Published by the General Letter numbered 1373, dated October 05, 2017*) The clearing and settlement periods, except official holidays, are applied as shown in the table given below.

Name of the Process	Time
Distribution of accrued interest	07:30
Collateral Deposit- Withdrawal Start Time	08:00
Distribution of profit not distributed due to previous business day cash deficit	08:15(T+1)
Cash Settlement Cut-off Time (Default Start Time)	15:00
TL Collateral Withdrawal Cut-off Time	15:40
Interest Accrual Cut-off Time	15:40
No Interest Accrual Instruction Cut-off Time	15:40

(2)	Physical Delivery Cut-off Time for EWR Futures Contracts (Default Start Time)	17:00
	Other Collaterals (excluding TL-) Withdrawal Cut-off Time	18:15
	Collateral Deposit Cut-off Time	18:15
	Deadline for sending accounts opened in CRA to BISTECH	18:15
	Settlement Price Announcement	19:00
	Option Exercise Order Cut-off Time	19:20
	Deny of Automatic Option Exercise Time	19:20
	BISTECH Account Opening/Association Cut-off Time	19:20+
	Finalized Profit/Loss Calculation Time(After business batch)	19:20+
	Start of evening batch	19:30
	Account Updating Process (Addition of Profits/Collection of Loss) (End of evening batch)	19:30+
	Margin Call (End of evening batch)	19:30+
	Notification of Positions in the Global Accounts	21:00
	End-of-Day Operations in Settlement Screen (TVIS)	21:30+

(Amendment Published by the General Letter numbered 1373, dated October 05, 2017) For halfdays, clearing and settlement periods are applied as shown in the table given below.

Name of the Process	Time
Distrubution of accrued interest	07:30
Collateral Deposit- Withdrawal Start Time	08:00
Distribution of profit not distributed due to previous business day cash deficit	08:15(T+1)
Cash Settlement Cut-off Time (Default Start Time)	11:00
Cash Collateral Withdrawal Cut-off Time	11:40
Interest Accrual Cut-off Time	11:40
No Interest Accrual Instruction Cut-off Time	11:40
Other Collaterals (excluding TL) Withdrawal Cut-off Time	12:45
Collateral Deposit Cut-off Time	12:45
Deadline for sending accounts opened in CRA to BISTECH	12:45
Settlement Price Announcement	13:30
Option Exercise Order Deadline	13:50
Deny of Automatic Option Exercise Cut-off Time	13:50
BISTECH Account Opening/Association Cut-off Time	13:50+
Finalized Profit / Loss Calculation Time (After business batch)	13:50+
Start of evening batch	14:00
Account Updating Process (Addition of Profits/Collection of Loss) (End of evening batch)	14:00+
Margin Call (End of evening batch)	14:00+
Physical Delivery Cut-off Time for EWR Futures Contracts (Default Start Time)	14:00
Notification of Positions in the Global Accounts	16:00
End-of-Day Operations in Settlement Screen (TVIS)	16:30+

(3)For all the transactions executed on the system, system date and time are taken as the basis.

(4) (*Amendment Published by the General Letter numbered 1373, dated October 05, 2017*) Collateral withdrawal excluding TRY and depositing collateral cut-off times are given for the transfer in the accounts in Takasbank. For the withdrawals from accounts and deposit to accounts, payment system / repository operations procedures shall be applied.

(5) The clearing and settlement periods may be changed by taking the opinion of the Exchange. The second paragraph of article 24 of the Central Counterparty Regulation shall also be reserved.

CHAPTER FIVE

Principles related to the Position Limits

Position limits

ARTICLE 23 - (1) Three types of position limits can be used in the Market; “Investor-Based Position Limit”, “Market-Based Position Limit” and “Member-Based Position Limit”.

Investor -Based Position Limit

ARTICLE 24-(1) Investor-Based Position Limit is the maximum number of underlying assets in which the positions in the same direction that may be taken in all accounts associated with a single investor may correspond for all contracts written on the same underlying asset.

(2) In position limit controls; positions in the same direction written on the same asset (“Long Call Option Position + Short Put Option Position + Long Futures Position” or “Short Call Option Position + Long Put Option Position + Short Futures Position”) are evaluated together and the highest amount shall be taken into account in the position limit control.

(3) Contract-based limits apply as follows:

Contract	Investor-based position limit	The upper limit when investor-based position limit is exceeded
Stock Futures and option contracts	Investor-based position limit is 5% of the stock amount in circulation announced by the CRA for each underlying stock	-
Gold Futures and option contracts	5.000.000	- 20% of total open interest in the same direction, in the contracts written on the same underlying asset.
Wheat EWR Futures Contracts	15.000	- 20% of total open interest in the same direction, in the contracts written on the same underlying asset.

Ege Cotton EWR futures contract	3.000	- 20% of total open interest in the same direction, in the contracts written on the same underlying asset.
Other futures and option contracts	Investor-based position limit is 50.000 contracts on positions in the same direction for the contracts written on the same underlying asset. For cash settled contracts which are written on the same underlying asset but which have different contract size, investor based position limit is the number of underlying of the standart contract (50.000 contracts x contract size)	- 20% of total open interest in the same direction, in the contracts written on the same underlying asset. - Upon official request of a member, the limit shall be increased up to 100,000 for Individual investor; 150.000 fir legal enstitites and 250.000 for local and foreign investment institutions which hold bank and brokerage house status.

(4) Number of positions taken by the joint accounts is followed on the basis of one investor.

(5) By taking the opinion of the Exchange and the developments in the Market into consideration, investor-based position limits may be increased up to five times by the General Manager.

(6) Investor based limits will not be applied to market makers.

(7) After each corporate actions, underlying asset position limits will be recalculated.

Market-Based Position Limit

ARTICLE 25 - (1) Market-Based Position Limit is the maximum number of underlying assets in which the aggregate of open interest in the market may correspond for all contracts written on the same underlying asset.

(2) For stock futures and option contracts, market-based position limit is 100% of the stock amount in actual circulation announced by CRA for each underlying asset. Market-based position limits are updated on a monthly basis. However, if there are equity issues for the relevant underlying asset, an update shall be made according to the daily informed stock amount in actual circulation.

(3) Market based position limit for the physically deliverable EWR futures contracts is 100% of the licensced warehouse capacity for the underlying assets registered at the CRA, which is updated quarterly.

(4) Futures and Options contracts that are not physically deliverable are not subjected to market based position limits

(5) Market-based position limits may be redefined by Takasbank by taking the opinion of the Exchange and the developments in the Market into consideration.

Member-Based Position Limit

ARTICLE 26 - (1) Member-Based Position Limit is the maximum number of underlying assets in which the positions in the same direction that may be taken in all accounts associated with a single member may correspond for all contracts written on the same underlying asset.

(2) Member-based position limits for all contracts written on the same underlying asset may be redefined by Takasbank by taking the opinion of the Exchange and the developments in the Market into consideration.

Violation of position limit

ARTICLE 27 - (1) When the position limits for an underlying asset are exceeded on market basis, all accounts; and when they are exceeded on investor basis, the accounts associated with the relevant investor can not make position increasing trades. Position limit controls are performed at the end of the day. However, in case of any extraordinary situations in the market, the position limits may also be checked by Takasbank during the day. For the controls made at the end of the day, the position reducing trade requirement shall become effective on the next business day after the notification of such position limit violations to the Member and the Exchange by Takasbank, and for the controls made during the day, it shall become effective immediately after the notification thereof.

(2) For position reducing trades to be conducted upon position limit violations, the relevant Member shall serve a notice to its customer to close the positions exceeding the limit. If such limit violations are failed to be closed by the Member on the next business day or within 4 hour after the notification is effected in relation to the notices made during the day, the Exchange shall close ex-officio such positions pursuant to the notification made by Takasbank to itself. All types of liabilities that may arise as a result of ex-officio closing of the open interest in the Exchange shall belong to the Member who fails to fulfill its obligations under this paragraph.

CHAPTER SIX

Principles Regarding the Exercise of Futures and Option Contracts and Physical Delivery **Exercise and physical delivery**

ARTICLE 28 - (1) At the expiry, in the money positions subject to either physical delivery or cash settlement are assigned with the short positions by Takasbank. The members are essentially required to send their exercise notices related to the options contracts that are out of money via BISTECH clearing terminals or web services. For the in the money positions that are automatically exercised by the BISTECH system could be denied via BISTECH clearing terminals or web services.

(2) For physically-settled option contracts, no transaction for the long positions which are not subject to automatic exercise order shall be executed on the maturity and the positions shall be closed without being subject to any settlement.

(3) For cash-settled option contracts, positions of the cash-settled option contracts which are in the money at the expiration date shall be exercised automatically without the need of any exercise notice to Takasbank by the Members; and the account updating process is performed over the accrued exercise profit/loss amounts.

(4) Profit or loss on exercising a cash-settled call option shall be calculated by multiplying the amount to be found by subtracting the strike price from the underlying asset's price on maturity with the contract multiplier and the amount.

Profit / Loss on Exercising a Call Option

$[\text{Underlying Asset's Price at Maturity} - \text{Strike Price}] \times \text{Contract Multiplier} \times \text{Amount}$

(5) Profit or loss on exercising a cash-settled put option shall be calculated by multiplying the amount to be found by subtracting the underlying asset's price on maturity from the strike price with the contract multiplier and the amount.

Profit / Loss on Exercising a Put Option

$[\text{Strike Price} - \text{Underlying Asset's Price at Maturity}] \times \text{Contract Multiplier} \times \text{Amount}$

(6) For physically-settled stock futures contracts, positions that remained opened at the expiration date are directly settled by physical delivery and settled at the Exchange Equity Market accounts, netted with the relevant house and client accounts of the member, on a member basis at the CRA.

(7) The debtor of EWR physical delivery, fulfills the security obligation through the CRA system. After fulfilling the security obligation, cash receivables are reflected to member's free account. The debtor of the cash fulfill the obligation through the free account under Takasbank. EWR physical delivery obligations are netted on account basis and settlement is finalized by Takasbank EWR Delivery versus Payment System.

Matching method of exercise requests

ARTICLE 29 - (1) For identifying the accounts with short-positions on which physical delivery obligation shall be imposed; multiple short positions can be matched with a long position. By the random identification of the matched accounts, the contract owner Member and accounts to be subject to netting operation shall be determined.

Rectify trade

ARTICLE 30 - (1) Trades done in the wrong accounts can be transferred to correct accounts via rectify function at the BISTECH clearing terminals at the same day until settlement price is announced.

(2) *(Addition: Published by the General Letter numbered 1373, dated October 05, 2017)* Erroneous transaction correction can not be made between accounts with different members. All transactions that take place in an order can be corrected as a whole, not partly corrected. Regarding the operations of the previous processing days erroneous transaction correction cannot be made in the system. In the case of

the transactions of the same business day, the erroneous transaction correction can not be made after the settlement prices are declared at the end of the day. In special orders, transaction adjustment can be made in line with the same principles.

(3) *(Addition: Published by the General Letter numbered 1373, dated October 05, 2017)* Responsibility for possible deficiency of collateral that may arise in accounts related to the erroneous transaction correction belongs to the account to which the transaction is ultimately sent. In the event that the member can not correct the erroneous transaction due to any reason other than the general business rules, the member's request for correction of the erroneous transaction is sent to the Takasbank by the member who caused the erroneous transaction.

SEVENTH SECTION

Principles of Risk Management and Margining

Risk management

ARTICLE 31- (1) A three-layer risk management system is implemented at the market; pre-trade, during the trade and post-trade.

(2) Pre-trade risk management is the practice, which involves checking the adequacy of the margin with the risk parameters, and is calculated taking into account the possibility of orders to be matched.

(3) The parameters used in pre-trade risk management implementation are determined by Takasbank using at least 1-year data set at 99.50% confidence level and reviewed every 3 months in the light of the market conditions. If deemed necessary, Takasbank may revise the pre-trade risk parameters before the end of the 3-months period. The determined parameters are announced through a general letter.

(4) In pre-trade risk management systems, the total margin requirement for the accounts may be scaled by using a parameter smaller than “one” to ensure that the variation margin practice is exercised. The margin balance calculated taking into account the total scaled margin requirement for the account, is referred to as margin deficit/surplus, which is the key for pre-trade risk management. New position increasing orders are not allowed on accounts with margin deficit, the key for pre-trade risk management. The margin balance, key for pre-trade risk management, is followed through the PTRM interface.

(5) The risk management at the instant of the trade is the margin control process exercised at the instant when the order is matched. Also during margin deposit and withdrawal transactions and following conditional give-up, risk and/or margin balance is calculated at the during-trade risk management layer in both the transferor and the transferee account. This process includes two separate calculation elements within itself.

(a) The instant margin adequacy calculation performed by the “PTRM Margin Calculation Method” at the instant when the order is matched, at the pre-trade risk management layer.

(b) At the during-trade risk management layer, the calculation which is carried out taking into account the post-trade risk management principles.

(6) The instant margin adequacy calculation performed with the “PTRM Margin Calculation Method” at pre-trade risk management layer remains active until the final margin adequacy is calculated by the post-

trade risk management principles at the during-trade risk management layer. , and with the completion of the calculation it is replaced with the newly calculated values.

(7) Takasbank shall not be held liable for potential temporary suspensions during order routing due to the temporary value calculation at pre-trade risk management system layer being larger than the final value calculated during-trade risk management layer.

(8) At the instant of the trade, risk is calculated only for the accounts where there is a change in position. In margin deposit and withdrawal transactions, risk calculations are not updated, only the margin balance is updated and the results are transferred to the PTRM system. There is no marking-to-market in pre-order risk management system for accounts where there is no position or margin movement.

(9) Post-trade risk management involves risk and margin calculations at the times announced by Takasbank, using the position and margin balances of the relevant moment and their updated prices.

(10) At post-trade risk management layer, the “required margin” is calculated by using portfolio based margining method for each account subject to the principles laid down under the “Margining Method” titled section of this Procedure.

(11) The results of the calculations completed at post-trade risk management system layer are reflected onto BISTECH settlement screens.

(12) The risk limit controls specified in the Article 32 of this Procedure and margin calls are based on calculations carried out at post-trade risk management layer.

(13) Maintenance level is not applied to end-of-day at the market. Intraday, a certain ratio of the required margin amount may be considered as variation margin by Takasbank. The intraday variation margin ratio is determined by Takasbank in light of market conditions and announced through a general letter. The bank may set different margin ratios per each Member as long as it is not under the ratio set .

(14) In intraday risks calculations, the standing orders on the account that has exceeded the maintenance level and is short of margin, are automatically cancelled in the Borsa operation system, and routing position increasing orders is blocked. If the account falls below the maintenance level following margin deposit and/or execution of position reducing transactions, position-increasing order may be routed over the account again. Intraday margin call is not issued every time that the maintenance level is exceeded. The risk control for accounts within maintenance levels, is under the Member’s responsibility.

(15) Among the accounts, which have received margin call the previous day, only those who are above intraday maintenance level, are not allowed to route position increasing orders.

Risk limits

ARTICLE 32 - (1) *(Amendment Published by the General Letter numbered 1357, dated June 09, 2017)*
For the markets in which CCP service is provided Takasbank assigns risk limits to the Members to the extent of their financial capabilities. Risk limits are determined over the required margin amounts, the key for risk limit calculation in relation to the positions carried by the Members in the markets where CCP service is provided.

(2) *(Addition Published by the General Letter numbered 1357, dated June 09, 2017)* Risk limits are determined separately for each market which CCP service is provided. Monitoring of limit is executed

based on total amount in BISTECH System.

(3) The risk limit allocated to each particular Member belongs exclusively to that Member and shall be notified by Takasbank to the relevant Member.

(4) *(Amendment Published by the General Letter numbered 1357, dated June 09, 2017)* It is checked at intraday risk calculation batches whether the amount of required margin, the key in calculating risk limits arising from all positions that the member has taken on his/her own and his/her clients' behalf in the markets where CCP service is provided, exceeds the risk limit.

(5) *(Amendment Published by the General Letter numbered 1357, dated June 09, 2017)* If the member exceeds his/her risk limit, the excess amount is multiplied incrementally by the coefficients specified in paragraph 7 of this Article, and the calculated total amount is reflected onto the "extra trade margin" account, where the obligations arising from the exceedings related to the Member's risk limits, are followed. An electronic margin call is issued to the Member who is in short of margin in the extra trade margin account. If the Member does not fulfil its extra trade margin requirement until 15:00 on the business day following the margin call, default provisions are applied.

(6) If the limits exceed 300%, without checking if the margin balances are sufficient or not, the Member is prevented from routing orders through any of his/her accounts. All standing orders on the accounts blocked from routing orders, are automatically cancelled on BISTECH operation system. If the amount of required margin, the key for risk limit calculation, falls below 300% level, order routing is allowed again.

(7) The ratio of total margin requirement in all accounts of a Member to the risk limit of that Member, and the coefficients corresponding to the relevant ratio are given below. The total additional collateral amount to be requested as a result of limit overruns shall be calculated by multiplying the amounts that fall into each range with the coefficients exclusively determined for that range.

Initial Margin / Risk Limit Ratio	Coefficient
%100 < ratio ≤ %130	0,2
%131 < ratio ≤ %150	0,3
%151 < ratio	1,0

(8) *(Amendment Published by the General Letter numbered 1403, dated February 06, 2018)* Assets that will be accepted as margin collateral for the extra margin account and group limits to be applied to those assets for the collateral valuation are given below. The margin requirements must be covered by the assets owned by the Member or on which the Member has the power of disposition.

Assets accepted as margin collateral for extra margin account	Group Limits
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Turkish Lira	Max %100
Foreign Currency (USD or EUR)	Max %100
Government Domestic Debt Securities	Max %100
Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company	Max %100
Stocks (from BIST-100)	Max %100
Mutual Fund Participation Cert. (Stock intense)	Max %100
Mutual Fund Participation Cert. (Other)	Max %100
Gold at Stock Exchange Trading Standards	Max %100

Margining method

ARTICLE 33 - (1) Portfolio based margining method is used for trades executed at the market. In portfolio based margining transactions, Takasbank uses BISTECH Margin Method, which is based on portfolio based risk management algorithm.

(2) The statistical parameters that shall be provided in the risk parameter file are calculated by using for each underlying asset at least 99%, and at the most 99.75% confidence level, and between 2 and 10 business days holding periods and over at least one year's data. If to be used, the parameters, which are adjusted taking into consideration the maintenance level, are announced through a general letter, released on Takasbank's website, and reviewed on quarterly basis in light of market conditions. If deemed necessary, Takasbank revises the risk parameters without waiting for the end of 3-months periods towards market conditions.

(3) The BISTECH Margin Method analyses contracts with the same underlying asset by grouping them. Takasbank performs portfolio risk management by using the BISTECH Margin Method with the following steps.

- 1st Step: Combined Commodity Risk Analysis
- 2nd Step: Risk Analysis Between Combined Commodities
- 3rd Step: Calculation of BISTECH Margin Method Risk Value
- 4th Step: Initial Margin Calculation
- 5th Step: Margin Requirement Calculation

(4) Regarding options' margining under BISTECH Margin Method, the net option values of the options and option premiums are included into the risk calculations as liability or obligation according to the direction of the position taken.

Combined commodity risk analysis

ARTICLE 34 - (1) BISTECH Margin Method performs the risk analysis on the basis of combined commodity where each represents one underlying asset. Risk of each combined commodity is calculated independently of other combined commodities. Risk of a combined commodity involves the sum of the scan risk and the intra-commodity spread charge which is defined as spread position risk among the maturities.

(2) Scan Risk is a risk type which is identified by portfolio based risk management algorithm for each contract as a result of calculating the Risk Arrays by adopting the relevant scenarios on "Price Scan

Range” and “Volatility Scan Range” values. Price Scan Range-PSR represents the maximum price change that may occur for an underlying asset. Volatility Scan Range-VSR, on the other hand, represents the maximum volatility change that may occur for the price of the underlying asset of an option.

(3) The risk series calculated for each contract are series, which show potential profit/loss figure that may arise in the contract according to different price and volatility scenarios for the contract’s underlying asset. In the scenarios the hypothetical volatility values attained by means of Volatility Scan Range in the scenarios, behave according to the lower and upper limit volatilities determined by Takasbank. If hypothetical volatility value is less than Takasbank volatility lower limit or higher than Takasbank volatility upper limit, hypothetical volatility values are lower and upper volatility limits are set by Takasbank. The risk series are calculated by using the 16 standard scenarios provided in the table below. Among these, the last 2 scenarios that correspond to 15th and 16th scenarios represent the extreme moves that may occur in the price of the underlying asset. In order for these extreme scenarios not to be dominant over other scenarios, the profit/loss amount is multiplied by an extreme move multiplier.

BISTECH Margin Method Scenarios

Scenario	Underlying Price Change as a Ratio of Price Scan Range (PSR); Volatility Shift (VSR)	Scenario	Underlying Price Change as a Ratio of Price Scan Range (PSR); Volatility Shift (VSR)
1	Price Stable; Volatility Up	2	Price Stable; Volatility Down
3	Price 1/3 Up; Volatility Up	4	Price 1/3 Up; Volatility Down
5	Price 1/3 Down; Volatility Up	6	Price 1/3 Down; Volatility Down
7	Price 2/3 Up; Volatility Up	8	Price 2/3 Up; Volatility Down
9	Price 2/3 Down; Volatility Up	10	Price 2/3 Down; Volatility Down
11	Price 3/3 Up; Volatility Up	12	Price 3/3 Up; Volatility Down
13	Price 3/3 Down; Volatility Up	14	Price 3/3 Down; Volatility Down
15	Extreme Move Scenario: Price Maximum 3 Up, Volatility Unchanged, Extreme Move Multiplier	16	Extreme Move Scenario: Price Maximum 3 Down, Volatility Unchanged, Extreme Move Multiplier

(4) *(Addition: Published by the General Letter numbered 1373, dated October 05, 2017)* The risk of each contract in the relevant scenario is found by multiplying the carried position with the risk array value. Contracts associated with the same combined commodity in a portfolio are evaluated together and the risks of the contracts associated with the relevant combined commodity in the portfolio for each scenario are added-up. The worst-case scenario for a combined commodity is the scenario where total risk of the contracts in the portfolio is the highest. The risk that occurs at the worst-case scenario on combined commodity basis is called the “Scan Risk”; and it, in a manner, indicates the market risk. The price scan range values of futures contracts based on the electricity underlying within the delivery period are reduced on a day to day basis.

(5) Intra-Commodity Spread Charge is a risk type that is used due to the price risk between the periods. BISTECH Margin Method primarily assumes the prices of an underlying asset in futures contracts with different periods would change at the same rate. Thus, a long position in any month is netted off with a short position in another month. Since the price moves between periods may change, portfolios are open to price risk between months. In calculating intra-commodity spread charge; the option contracts are converted to futures equivalent contracts by using the delta values of the contracts in the combined commodity; and intra-commodity spread charge is also calculated between the futures contracts and the option contracts.

(6) Delta is the rate of change of the price of the option with respect to a unit change in the price of its underlying asset. Delta values of 7 scenarios out of the 16 scenarios specified in the third paragraph of this Article are weighted by the probabilities determined by Takasbank and the composite delta on contract basis is calculated. Composite Delta takes values between 0 and 1 for call options and takes values between -1 and 0 for put options. Composite Delta is 1 for the futures contracts.

(7) Composite Delta value calculated for each contract is multiplied by the delta scaling factors and the number of positions in the contracts associated with the relevant combined commodity of the portfolio and the “Net Delta” value of the portfolio on product basis is calculated, thus positions at different sizes are expressed at the same scale.

Net Delta = Composite Delta x Delta Scaling Factor x Number of Positions

(8) Intra-commodity spread charge of the relevant combined commodity of the portfolio is found by using maturity month-level groups (tiers definition) explained in risk parameter file.

Risk analysis between combined commodities

ARTICLE 35 - (1) After calculating the risk of each combined commodity for a portfolio, margin requirement shall be calculated by considering the situations where the correlations between the price moves of the combined commodities may reduce the portfolio risk. The int-commodity spread credit is also used for the options through the conversion of the option positions to futures positions by using deltas.

(2) Inter-commodity spreads are created by using net delta values of the products by order of priority. Inter-commodity spread credit is calculated according to the parameters set by Takasbank between two product groups.

Risk Value Calculation

ARTICLE 36 - (1) Portfolio based risk management algorithm risk is calculated by deducting inter-commodity spread credit from the sum of the scan risk and intra-commodity spread charge.

(2) Short Option Minimum Risk is calculated against situations where the intrinsic values of the short option positions at extreme loss may increase as a result of sudden moves in the market and the accrued loss may exceed the portfolio based risk management algorithm risk value calculated in the first paragraph of this Article The Short Option Minimum Risk of the portfolio is calculated by multiplying the short positions in each of the option contracts with the “Short Option Minimum Risk” of the contract and then summing them on portfolio basis. Portfolio based risk management algorithm risk cannot be lower than the portfolio’s short option minimum risk.

BISTECH Margin Method Risk = Max.[(Scan Risk + Intra Commodity Spread Charge – Inter – Commodity Spread Credit), (Short Option Minimum Risk)]

Initial Margin Calculation in post trade risk management

ARTICLE 37– (1) Transactions conducted in the Market are received by Takasbank from the Exchange on real-time basis and turned to positions. The last open interest is calculated for the accounts whose positions are updated and the “initial margin” is also calculated according to the last risk parameter file data.

(2) In risk parameter file, “Net Option Value” is calculated by deducting the total value of the short option positions from the total value of long option positions in a portfolio.

Net Option Value = Total Value of Long Option Positions – Total Value of Short Option Positions

(3) The option premium value of the portfolio means the premium receivables or payables of the options executed during that day. The option premium value is calculated by subtracting the premium payables of long options from premium receivables on short option positions in a portfolio.

Option Premium Value =

Premium receivables on short option positions – Premium payables of long options positions

4) Initial margin of the portfolio is calculated by deducting the Net Option Value from the BISTECH Margin Risk Model Risk Value and option premium value . Prices taken as the base for the net option value are determined by Takasbank.

Initial Margin = BISTECH Margin Risk – Net Option Value – Option Premium Value

Margin Requirement Calculation in post trade risk management

ARTICLE 38 - (1) The total margin requirement is the sum of initial margin and physical delivery margin. Physical delivery margin may be blocked-out in the respective account depending on the type of the type of asset to be delivered the business day following the settlement date ensuring that the event of default finalizes.

Physical Delivery Amount =

(Number of Contracts to be Physically Delivered x Physical Delivery Parameter of the Underlying A
+ [(Underlying Asset Temporary Settlement Price – Contract Expiry Price)]x
[Number of Contracts to be Physically Delivered] x [Contract Multiplier]

Total Margin Requirement =

Initial Margin + Physical Delivery Margin

(2) If CCP service is provided by Takasbank at the market that the underlying asset subject to physical delivery is traded, physical delivery at the Market condition, is not sought for these contracts. The positions on these contracts are transferred to the respective market.

(3) While CCP service is not provided by Takasbank, physical delivery margin regarding underlying assets traded at markets on BISTECH system is sought until the end of settlement at the respective Market.

(4) For assets, which are settled outside the BISTTECH system, the physical delivery margin is freed at the end-of-day calculations performed on the business day following the settlement date.

Calculation of intraday and end-of-day maintenance level

ARTICLE 39 - (1) The values that allow sending position increasing orders at the markets and are announced by Takasbank as a ratio of the collateral, are referred to as intraday maintenance level. The maximum risk level allowed for intraday position increasing order delivery is calculated by adding “one” to the disclosed relative value and multiplying by the total available collateral.

(2) If a current risk level of an account exceeds the maximum level specified in the first paragraph of this Article, all the pending orders that belong to the respective account are cancelled, and placing position-increasing orders on the account is blocked.

(3) The intraday maintenance level is determined in light of market conditions by Takasbank and announced through a General Letter.

(4) Maintenance level is not applied to end-of-days. End-of-day margin call is issued taking into account the minimum cash requirement and total available collateral deficit.

(5) At end-of-days, margin call is issued from BISTECH settlement terminals by messaging and/or reporting for the larger of total available collateral deficit and minimum cash requirement deficit.

Intraday margin call

ARTICLE 40 - (1) If the total margin requirement for an account exceeds the total available collateral ratio for that account or the cash collateral deficit exceeds the criteria set by Takasbank, to ensure that such overruns are fixed, intraday margin call may be issued by Takasbank. Until the margin call obligation is fulfilled on these accounts, delivery of position increasing orders is not allowed.

(2) The margin call obligations should be deposited within two hours to the respective account. In the meantime, default provisions are applied for obligations that have not been met.

(3) The intraday margin call criteria shall be determined by Takasbank, provided that it is above the maintenance level, taking into account issues such as market conditions, margin concentrations, whether margin call is due to initial margin or variation margin, and nominal/ relative shortfall in the account.

Calculation of profit and loss

ARTICLE 41

(1) Profit /loss calculations of the positions resulting from the transactions conducted in the Market are performed by Takasbank. The calculation is reported to the Members by Takasbank over the BISTECH system.

(2) At the end of the session, the profit/loss amounts to be collected from/credited to the accounts are finalized according to the end-of-day settlement prices.

(3) Throughout the session, intraday profit/loss is calculated at risk calculation batches, whose timing is set by Takasbank, for all open interest accounts using the most recent prices provided on the system. The calculated intraday loss amounts increase the risk amount calculated at post-trade risk management layer, and temporary profits reduce. The changes that occur in option values and option risk levels at the batches of risk calculations are also reflected onto the risk amount calculated at the post-trade risk management layer. And for trading accounts, intraday profit/loss amount is calculated on real-time basis. If the

calculated settlement prices are failed to be explained by the price developments of the relevant underlying instruments, then theoretical prices calculated by Takasbank by considering the market conditions shall be used for the relevant contracts.

(4) For the final profit/loss, the transaction cost which is calculated according to the weighted average prices of the transactions is used.

(5) In option trades, paid or received premium amount affects the total amount of margin requirement for the account on the trade date. If the relevant account is to receive net option premium, then such amount can be used either for other positions in the portfolio or the new positions to be taken.

(6) In the option contracts, the settlement can be made either by cash-settlement method or physical delivery method. Exercise profit/loss amount is not calculated for the options contracts finalized by physical delivery. For cash-settlement option contracts, on the other hand, the profit/loss calculated due to the exercise of the option is reflected to the relevant accounts as exercise profit/loss.

(7) When a premium transaction is conducted, the account updating process is not performed for the paid options. No profit/loss calculation is made at the end of the day for the option transaction of such a nature.

(8) The variables that comprise the total profit/loss figure and the total profit/loss figure are followed through Takasbank screens. Exercise profit/loss is only calculated in case of cash settlement. Total profit or loss is calculated by either adding the exercise profit to or subtracting the exercise loss from the amount produced by deducting the net option premium from the profit or loss amount of the futures contracts.

Total Profit/Loss=

Profit/Loss of Futures Contracts – Net Option Premium ± Exercise Profit/Loss

(9) The finalized profit/loss is revealed after release of the end-of-day settlement prices. An element of finalized profit/loss, futures contracts' final profit/loss is the profit/loss, which arises from closing out open interests during the session, and mark-to-market of open interests with end-of-day settlement prices. Final profit/loss is not calculated for option contracts, however net option premium and option exercise profit/loss are elements of total profit/loss. In this framework,

i) The final profit and loss amount for futures contracts is calculated at the end of the day by multiplying the position amount and the contract multiplier by the difference between the closing-out and opening price of intraday-positions.

$$[(\text{Position closing out price} - \text{Position opening price})] \times [\text{Traded Amount}] \times [\text{Contract Multiplier}]$$

ii) For positions opened during the day and carried to the next day, it is calculated by multiplying the difference between the end-of-day settlement price and opening price by the position amount and contract multiplier.

$$[(\text{End} - \text{of} - \text{day settlement price} - \text{Position opening price})] \times [\text{Traded Amount}] \times [\text{Contract Multiplier}]$$

iii) For positions carried from the previous day to the next day, it is calculated by multiplying the difference between the settlement prices for the previous end-of-day and end-of-day with the position amount and contract multiplier.

$$[(\text{End of Day Settlement price} - \text{Previous day end of day settlement price})] \times [\text{Transaction Amount}] \times [\text{Contract Multiplier}]$$

(10) Intraday profit /loss for future contracts is the profit /loss amount which is refreshed by adding the profit/loss amount at the moment of closing the positions which are closed during the day to the profit/loss amount calculated by the intraday settlement price being updated within a pre-determined time interval for the existing open interest

(i) For long positions opened during the day, it is calculated by multiplying the difference between the intraday settlement price and the position-opening price with the open position amount and contract multiplier.

$$[(\text{End of day settlement price} - \text{Position opening price})] \times [\text{Traded Amount}] \times [\text{Contract Multiplier}]$$

ii) For the positions carried forward from the previous day; it is calculated by multiplying the difference between the temporary settlement price and the previous day's end-of-day settlement price with the open interest amount and the contract multiplier.

$$(\text{End of Day Settlement price} - \text{Previous day end of day settlement price})$$

(iii) Option contracts' intraday profit/losses are calculated by subtracting premium paid to the option from the net option value for long position, and for short position subtracting option value from the collected premium.

Intraday Profit/Loss for Option Contracts

Long Position

$$\text{Net Option Value} - \text{Option Premium}$$

Short Position

$$\text{Option Premium} - \text{Net Option Value}$$

(11) After the final and intraday profit/loss amounts are calculated in FX for FX denominated futures contracts, their profit/loss amounts are calculated in TRY by multiplying with the respective FX rate. In the calculations, spot FX market rate that changes during the day, and at the end of the day the FX bid rates announced by the CBRT for the respective day are used.

(12) Net option premium is the difference between the received option premium and the paid option premium.

Net Option Premium

$$\text{Received Premium} - \text{Paid Premium}$$

(13) The received premium amount is calculated at the beginning of the transaction, and for the premium payment options, it is only calculated on the transaction day. The received premium amount for a put and call option selling transaction is found by multiplying the transaction price with the amount and contract multiplier.

Received Premium

Transaction Price x Amount x Contract Multiplier

(14) The paid premium amount is calculated at the beginning of the transaction, and for the premium payment options, it is only calculated on the transaction day. The paid premium amount for a put and call option buying transaction is found by multiplying the transaction price with the amount and contract multiplier.

Paid Premium

Transaction Price x Amount x Contract Multiplier

(15) For cash-settled options, the exercise profit/loss amount is calculated at the moment the option is exercised by taking the strike price and underlying asset's price into consideration. Call option exercise profit or loss amount is calculated by multiplying the difference between the underlying asset's price on maturity and the strike price with the amount and contract multiplier. Put option exercise profit or loss amount, on the other hand, is calculated by multiplying the amount to be found by subtracting the underlying asset's price on maturity from the strike price with the transaction amount and contract multiplier.

Call Option Exercise Profit/Loss

[Underlying Asset's Price on Maturity – Strike Price] x Contract Multiplier x Amount

Put Option Exercise Profit/Loss

[Strike Price – Underlying Asset's Price on Maturity] x Contract Multiplier x Amount

Reflecting profit or loss amounts onto the accounts

ARTICLE 42 - (1) At the end of the day (T) where transactions involving loss and premium payables and profit and premium receivables from trades executed by Takasbank at the market are carried out

(2) After end of the session the end-of-day settlement prices for futures and option contracts are set and all accounts are marked-to-market. For accounts, whose total available collateral have fallen below the required margin level, "margin call" is sent to member screens via messaging and reporting, and pursuant to the margin call principles as per Article 50.

(3) The profits obtained from the positions are distributed to the related accounts starting from day T till the "end of profit distribution time" on the T + 1 day specified in Article 22. In the event that there is a deficit in the profit-loss pool of Takasbank for distribution, the profits will be partially distributed with a ranking from lowest to highest.

CHAPTER EIGHT

Principles Relating to the Collaterals

Membership collateral

ARTICLE 43 – (1) The general clearing members and the direct clearing members shall deposit 10.000-TL and 5.000-TL, respectively, as membership collateral to cover the losses that may be incurred as a result of the failure to fulfill the obligations against Takasbank related to the dues, fees and commissions and other liabilities within their given time period. The said collateral amounts shall be re-determined by the Board of Directors by taking the market developments into consideration. The membership collateral shall be deposited in Turkish Lira.

(2) If the Members fail to fulfill their obligations against Takasbank, then Takasbank shall collect the relevant amounts from the membership collateral. The Member, after such collection, shall restore the membership collateral to its required level within 3 business days. If the collateral deficit is failed to be restored, this amount shall be collected ex officio from the Member.

(3) In case of termination of the membership, the membership collateral shall be returned provided that all obligations of the Member against Takasbank are completely liquidated

Assets that could be accepted as transaction collateral

ARTICLE 44

(1) *(Amendment Published by the General Letter numbered 1403, dated February 06, 2018)* The following assets may be used by the member to serve margin obligations and the assets deposited outside the following are excluded from valuation.

- a) Cash in Turkish Lira,
- b) Convertible Foreign Currency, (USD Dollar and Euro)
- c) Government Domestic Debt Securities,
- d) Stocks included in BIST 100 Index
- e) Equity Umbrella Fund Shares,
- f) Debt Instruments Umbrella Fund Shares,
- g) Lease certificates issued by the Undersecretariat of Treasury of the Republic of Turkey, Asset Leasing Company,
- h) Gold in the standard traded on the Exchanges

(2) Takasbank may not accept securities and guarantees that it considers to be connected to the member due to possible specific correlation links between the member's credit worthiness and assets received as margin or may limit their eligibility as margin and guarantee fund contribution share. In the controls in this regard, margin concentrations are also watched and the controls are applied to margin accounts associated with portfolio accounts. The assets, which are identified during the controls, are reported to the Member to ensure that they are changed. The identified assets should be changed within 5 business days. The assets that are not changed until this deadline are excluded from the valuation.

(3) In order for the Government Domestic Debt Securities to be accepted as collateral, the principal and coupons representing the entire security should be deposited together as collateral. The entrusted government domestic borrowing securities lose their ability to be eligible as margin the day before redemption. The redemption amount is transferred to cash margin account.

(4) For collaterals in the form of stocks; the responsibility for maintaining the margin level belongs to the Member by considering the fact that receivables against capital increase payment are transferred to the Member's free account with Takasbank and the collateral account may fall below the maintenance level in the Exchange from the start date of such equity state.

(5) Members cannot submit guarantees and securities which are issued by themselves or by the banks and companies that they are involved as the same investment group (except for the securities issued by the Undersecretariat of Treasury of the Republic of Turkey and for the guarantees and securities of other banks whose majority of the capital belongs to the Undersecretariat of Treasury) as collateral to Takasbank.

(6) Out of the assets accepted as collateral, those defined to BISTECH system are monitored through the Applicable Collateral Report included within the integration scope. Should the assets not included in this report be intended to be given as collateral, a notification must be made at least one business day before to Takasbank to enable the relevant asset to be defined in the system. The responsibility for monitoring shall belong to the member.

Composition of the transaction collateral and the valuation coefficients

ARTICLE 45- (1) *(Amendment Published by the General Letter numbered 1415, dated March 29, 2018)*

At least 50% of the total margin requirements calculated at the Market must consist of margin in TRY. The Board of Directors is authorized to change this ratio according to Market developments. The ratios in the following table are applied for other assets that shall be eligible besides Turkish Lira and their composition limits. The composition limits are applied over the sum of deposited TRY and other margin balances. Takasbank Board of Directors is authorized to determine composition limits for new assets that that be considered as eligible collateral or change composition limits including those determined under this Procedure.

Assets Eligible as Trade Margin	Group Limit	Lower Group Limit (As % of Group Limit)
Convertible FX (USD/EUR)	Maximum 50%	-
Government Domestic Borrowing Securities	Maximum 50%	30 (Based on ISIN)
Equities (BIST100)	Maximum 25%	20%
Equity Umbrella Fund Shares	Maximum 25%	50%
Debt Instruments Umbrella Fund Shares	Maximum 50%	50%
Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company	Maximum 50%	20% (Based on ISIN)
Gold at Stock Exchange Trading Standards	Maximum 25%	-

(2) In calculating the lower group limits, the respective asset amount's group limit applied valuated portion is taken into account.

(3) *(Addition: Published by the General Letter numbered 1373, dated October 05, 2017)* The following valuation coefficients are taken as the basis in the calculation of the collateral values of non-cash assets that could be accepted as transaction collateral.

Cash – Non-cash	Collateral Types	Valuation Coefficients
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Cash	Turkish Lira	1,00
Non-cash	Foreign Currency (USD or EUR)	0,94
Non-cash	Government Domestic Debt Securities	0,91
Non-cash	Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company	0,88
Non-cash	Stocks (from BIST-30)	0,76
Non-cash	Stocks (from BIST-30/BIST-100)	0,70
Non-cash	Mutual Fund Participation Cert. (Stock intense)	0,82
Non-cash	Mutual Fund Participation Cert. (Other)	0,88
Non-cash	Gold at Stock Exchange Trading Standards	0.86

(4) The valuation coefficients are reviewed once in a year. The reviews, if deemed necessary, may also be made in shorter periods. If there is any change in the valuation coefficients after such reviews, the new valuation coefficients shall be announced to the Members.

(5) In calculating valuation coefficients, parametric, non-parametric or simulation based statistical methods deemed suitable by Takasbank are used. In determining margin valuation multiples, the respective asset's credit risk as assessed by Takasbank, maturity, volatility under extreme market conditions, liquidity and if there is, exchange rate risk are taken into account.

(6) The statistical confidence level to use in the calculations cannot be less than 99.75%, and the holding period less than 2 day. It is essential that historical data less than 1 year be not used during the calculations. The valuations coefficients for assets where there is insufficient or no historical data is available, are determined by benchmarking against coefficients calculated for assets of similar qualities.

(7) The share of total of the securities and guarantees issued or delivered by any issuer or bank or by other issuers and banks included in the same investment group (except for the securities issued by the Undersecretariat of Treasury of the Republic of Turkey and for the guarantees and securities of other banks whose majority of the capital belongs to the Undersecretariat of Treasury), which are accepted as collateral by Takasbank, to total collateral accepted by Takasbank for that market cannot exceed 25%.

Updating the transaction collateral values

ARTICLE 46 - (1) *(Amendment Published by the General Letter numbered 1403, dated February 06, 2018)* The assets eligible as collateral, are subjected to valuation at prices determined by Takasbank to ensure that they are valued at recent market prices, during the day at risk calculations batches, during margin deposit and withdrawal processes and at the end of each trading day. If the margin call is at the batch of the risk calculation in operation at the last hour of the closing, the previous end-of-day prices are used for valuation.

TValuation	Valuation Criteria	Explanation
FX	Intraday: Interbank Market Bid-Offer quotation average	Including end-of-day 18:00 risk calculation instant Interbank FX rates average for the day, and at end-of-day risk calculation

	End of Day: CBRTFX Bid Rate	instant bid rate announced by CBRT at 15:30.
Treasury Bill and Government Bonds (Including Sukuks)	<p>Intraday: Theoretical price set by Takasbank by using the yield curve or CBRT Prices.</p> <p>End of Day: Theoretical price set by Takasbank by using the yield curve or CBRT Prices.</p>	Valued by using the prices calculated from yield curve comprised of zero-coupon and fixed-coupon bonds traded at Borsa Debt Instruments Market and when these prices are not available benchmark daily values of Government Domestic Borrowing Securities determined by CBRT. It may change in parallel to the yield curve updates during intraday risk calculation instants.
Exchange traded gold	<p>Intraday: The final transaction price at BİAŞ PMD right before any risk calculation batch</p> <p>End of Day: Price published by BİAŞ PMD as end of day</p>	It is valued at USD / ONS price for T + 0 valued transactions in Precious Metals and Stones Market and at the price calculated by using the foreign exchange buying rate of TCMB at the end of the previous day. If there is no transaction, the theoretical price can be used as the weighted average price of the previous session.
Equity, Exchange Traded Fund and Mutual Funds	<p>Intraday: Last traded price at BİAŞ equity market before the calculation instant,</p> <p>End of Day: End of session last traded price</p>	If no trade has been executed at Borsa, the theoretical price set by Takasbank. For traded securities, if the unmatched bid and offer orders, unmatched order (if the bid and offer have been received simultaneously) comes after matched order, bid and offer price average may be used.

(2)The prices subject to valuation are announced by Takasbank during the day over Takasbank Integration Menu. The theoretical formulas and methods to be used in the valuation of assets accepted as collateral by Takasbank are published on the corporate website of Takasbank.

Collateral agreement

ARTICLE 47 - (1) If the capital market instruments held in book-entry form are deposited as collateral, then a written collateral agreement shall be made between Takasbank and the Member in writing pursuant to Article 47 of the Law.

(2) In the collateral agreements related to the capital market instruments held in book-entry form, the title transfer of collaterals to Takasbank can also be decided. If the title transfer of collaterals to Takasbank is decided, Takasbank shall acquire the ownership right at the moment the agreement is executed and as a result of the transfer of such capital market instruments given as collateral in accordance with legal procedures.

(3) In cases where the receivables of Takasbank are required to be covered from collaterals because of the reasons stipulated in the provisions of the agreement thereof or of the relevant legislation or due to the default of the Member, then Takasbank shall be entitled to sell the assets given as collateral in the exchanges or other organized markets, if such asset is listed in any of these markets, and cover its receivable from the sale proceeds thereof, without having any obligation to fulfill any precondition such as serving any notice or warning, allotting time, obtaining a permission or approval from the administrative or judicial authorities, converting collateral into cash through an auction or another way, etc. Takasbank shall also be entitled to set-off the value of the capital market instruments given as collateral from the liabilities of the debtor provided that the title of such collaterals has been transferred.

(4) The rights arising from the assets held as collateral belong to the party supplying collateral. However; if the title transfer of collaterals to Takasbank has been decided by the agreement made between Takasbank and the party supplying collateral pursuant to Article 47 of the Law, then the rights arising from such collateral shall belong to Takasbank. Takasbank shall return the collateral on the maturity date together with their rights accrued thereof in accordance with the provisions of Article 27 of the Central Counterparty Regulation and upon request of the Member; provided, however, that, all obligations are completely fulfilled.

Collateral management and monitoring

ARTICLE 48- (1) Client based gross margining method is applied at the market. In single account positions portfolio based net margining method is used. Collateral monitored in the accounts associated with single customer positions can be used neither for closing collateral deficit arising from the accounts belonging to the Member's own portfolio or other customer accounts nor for resolving the default.

(2) Pursuant to Article 79 of the Law, the rights and powers of Takasbank on the asset values taken as collateral for the Market operations that it performs as a central counterparty member cannot be limited in any way. Lack of power of disposition of the Member, for any reason, on the asset values given as collateral shall not prevent Takasbank from acquiring a real right in good faith. Title or limited real right claims of third parties on the asset values given as collateral cannot be asserted against Takasbank.

(3) Devoting time for composition with creditors about the party supplying collateral, approval of its composition, devoting time for composition after bankruptcy, inclusion of its assets by abandonment into the composition process, restructuring of its debts by an arrangement, its bankruptcy, postponement of its bankruptcy, or the relevant provisions of the Law regarding gradual liquidation or the proceeding procedures stipulated under the Execution and Bankruptcy Law No. 2004 cannot limit Takasbank's rights and powers on collaterals in any way.

Collateral deposit or withdrawal operations

ARTICLE 49 - (1) Margin deposit/withdrawal transactions are executed over the web service or BISTECH Settlement Terminals in 2 stages, under the principle that those entering the deposit/withdrawal instruction and those approving this instruction are different authorized users.

(2) Collateral deposit/withdrawal operations are performed from the Member's free accounts of the relevant asset or by making electronic transfer to its free accounts. Upon the update of the accounts, if the collateral amount in an account exceeds the margin requirement amount, then the exceeding amount can be withdrawn. For the collateral withdrawal transactions; if the account carries any position, the

collateral withdrawal requests which may lead to a deterioration of the collateral composition shall be rejected.

(3) The option premium to be collected as a result of the conducted transactions shall be deducted from the cash collateral balance of the option buying account on T-day at the end of the session; and the option premium to be paid shall be credited to the cash collaterals of the option selling account on T day.

(4) The collateral amounts required to be maintained due to the positions carried on the relevant account cannot be withdrawn. No collateral withdrawal transaction can be performed from the accounts which bear margin call obligations.

(5) In Takasbank system, for TL payments EFT times and; for the foreign currency payments SWIFT times shall be binding, however; for determining the cutoff times, the liquidity in the market and the operational risks are also taken into consideration.

(6) For the controls carried out regarding the collateral withdrawal transactions made during the session; in calculating the withdrawable collateral, the margin requirement and calculated temporary or final loss amounts shall be deducted from the total collateral amount available in the accounts with Takasbank at the moment of calculation. Total profit amount shall not be taken into account in calculating the withdrawable collateral.

(7) (*Amendment Published by the General Letter numbered 1403, dated February 06, 2018*) The correspondence banks information which is necessary for withdrawal of foreign currency is as follows.

Currency Code	Correspondence Bank	Correspondence Bank SWIFT/BIC	Correspondence Bank Account Number
EUR	Citigroup Global Markets Deutschland AG, Frankfurt am Main	CITIDEFFXXX	4115556024
USD	Citibank NA, New York	CITIUS33XXX	36892258

End-of-day margin call

ARTICLE 50 - (1) Margin call is issued to accounts where the collateral amount falls below the margin requirement level or there is a TRY collateral deficit Members are obliged to serve margin call obligations latest until 15:00 the following trade date.

(2) Margin call amount is calculated by Takasbank taking into account the prevailing market prices, statistical values and risk parameters. This amount is notified to the Members by announcing as margin call at Settlement terminals. If the margin call is sent through the system, the member is considered to have received the call without the need for any further warning and notice. The member's responsibility starts the instant that the margin call issued by Takasbank reaches the member.

3) Margin call may be issued for total collateral deficit or TRY deficit. In any case margin call amount is deposited in TRY.

(4) Accounts that received margin call or defaulted, may leave margin call or default status only by depositing cash collateral and/or executing trades that shall reduce the margin requirement amount.

(5) The following conditions should be satisfied altogether for partial position change and to end TRY collateral deposit and margin call or default obligation.

(i) The size which shall be reached by adding the difference between the initial margin liability and subject of the account margin call, the initial margin calculated after the position change and intraday and final profit generated in the account following the position change to the deposited cash collateral, must equal the margin call amount or be larger.

(ii) The deposited TRY collateral amount must meet the account's short cash balance and minimum TRY requirement.

(6) The margin call amount is difference of total available collateral and the margin requirement level calculated by taking into account final profit/loss and option premium receivables payables.

Accrual of interest on cash collateral

ARTICLE 51 - (1) The amount of the membership collateral in cash Turkish Lira and the transaction collaterals deposited by the Members remaining after withholding of the amount to be maintained as compulsory reserve shall be accrued interest by Takasbank with the best possible conditions by taking the credit risk and liquidity positions into consideration. The interest accrual process shall be carried out within the limits of Takasbank.

(2) Interest accruals on transaction collaterals are performed over the account balances of the Members at 15:40. Cash collaterals in the transaction collateral accounts shall be accrued interest by Takasbank according to the current market conditions on a best effort basis; and the interest amounts shall be transferred to the relevant accounts on next business day. No interest shall be given on cash collaterals deposited as collateral to Takasbank after 15:40.

(3) Taxes and other legal liabilities and Takasbank's commission shall be deducted from the gross interest amounts earned as a result of the interest accrual process.

CHAPTER NINE

Principles Relating to the Guarantee Fund

Guarantee Fund

ARTICLE 52 - (1) A Guarantee Fund shall be established in the Market where the central counterparty service is provided in order to cover the losses that cannot be covered by collaterals of the defaulting Members. All Members are required to participate to the Guarantee Fund.

(2) The contribution amounts to be deposited by the Members to the guarantee fund should be met from the assets under their ownership.

ARTICLE 53 – (1) Takasbank establishes a guarantee fund under CCP service that it shall offer at the Market, to be used for the portion of potential losses that may appear in case of member default in excess

of the respective members' collaterals, and consisting of members' contribution shares. CCP members' participation in the guarantee fund is mandatory.

2) CCP members' guarantee fund contributions shares consists have deposited and additional guarantee fund contribution shares to be deposited upon Takasbank's demand. (If the Guarantee Fund is used subject to the provisions of CCP Communiqué, Directive and the Procedure, CCP members may be asked to deposit additional contribution shares as long as they don't exceed guarantee fund contribution share amounts. The member may be asked to deposit additional contribution share at the most 4 times during one-year period between 1 April-31 March. The additional guarantee fund contribution share that may be demanded at one time cannot exceed the guarantee fund contribution share amount that must be deposited and is calculated for the month when the defaults constituting the basis for the request, have occurred. Additional guarantee fund contribution amount maybe demanded more than once as long as it doesn't exceed the entire amount deposited at one time or the total amount deposited in portions.

(3) The maximum guarantee fund liability of CCP members, who have asked to quit membership, but their request has still not been decided by the Board of Directors or whose request to leave has been accepted by the Board of Directors, but a period has been given to return the deposit guarantee fund contribution share, as long as there is not continuing default on the request date which is in the process of resolution, is double the guarantee fund amount which should have been deposited in the month of the request otherwise, three times. Organizations, which are considered to leave or ask to leave CCP membership to avoid potential guarantee fund obligations, may not be re-admitted into CCP membership.

(4) The other Members' guarantee fund contribution shares may be not resorted to unless the defaulted Member's trade collaterals, its guarantee fund contribution, if exist, insurance policy indemnifications and capital allocations made by Takasbank for covered risks at the Market fall short.

(5) If membership is terminated, pursuant to provisions of the Central Counterparty Communiqué, Article 33, guarantee fund contribution share is paid back.

(6) Guarantee fund assets may not be used beyond their purpose.

(7) It is essential that contribution shares, which shall be deposited by the members into the guarantee fund, be met by the assets under their ownership.

(8) The guarantee fund is represented and managed by Takasbank.

Guarantee fund size and Member contribution share amount

ARTICLE 54 (1) (*Amendment Published by the General Letter numbered 1403, dated February 06, 2018*) The size of the Guarantee Fund cannot be less than the larger of resource requirement that shall arise under stress conditions in the default event of the Members with the largest open position along with the second and third. The resource requirement consists of the portion of their risks that remains outside the part that may be covered with initial margin, and calculated by adding the variation margin calculated under stress conditions. In estimating risk under stress conditions with statistical method, respectively, 99.9% confidence levels and between 2 and 5 business days holding period is used. Takasbank may set the minimum guarantee fund requirement larger than statistically calculated obligation by monitoring market conditions, margin concentrations and adequacy level of default management resources.

(2)The calculation regarding total size of the guarantee fund is renewed no longer than every 3 months, testing the adequacy of the existing guarantee fund.

(3) The members' guarantee fund contributions consist of fixed and variable contribution shares calculated relative to the risks they carry.

(4) A Member's deposited guarantee fund contribution share cannot be less than the fixed contribution share amount. The fixed contribution share amount that members must deposit is 300,000 TRY. This amount is revised at least once a year in light of the developments across the domestic and international economy and if deemed necessary, may be changed.

(5) The variable contribution share is reached by multiplying the ratio calculated by dividing the member's average margin requirement amount set by Takasbank for the selected period, by the market's average collateral amount, with the minimum guarantee fund size that corresponds to the respective period. The calculated sizes are announced through Member screens.

(6) A member's deposited guarantee fund contribution share cannot be less than the fixed contribution share amount.

(7) *(Amendment Published by the General Letter numbered 1373, dated October 05, 2017)* Length of the data set that constitutes the basis for the calculation of the guarantee fund size and the members' variable contribution shares, and shall be used to determine the average market participation as per paragraph 5 of this Article, is minimum 3 months.

(8)Guarantee Fund contribution obligations are calculated on the first business day of each month, updated the following business day.

(9)The calculations for members' guarantee fund contribution shares may be performed by Takasbank in light of the respective members' risk situation and market conditions, without waiting for the first business day of the month.

Eligible guarantee fund contribution share assets

ARTICLE 55 - (1) The Members may use the following assets as Guarantee Fund contribution share.

- a) Turkish Lira
- b) Convertible FX (USD and Euro)
- c) Government Domestic Borrowing Security
- d) Equity Umbrella Fund Shares
- e) Debt Instruments Umbrella Fund Shares

(2) In calculating valuation coefficients to be applied to guarantee fund contribution shares, parametric, non-parametric or simulation based statistical methods deemed suitable by Takasbank are used. In determining haircuts, the respective asset's credit risk as assessed by Takasbank, maturity, volatility under extreme market conditions, liquidity and if there is, exchange rate risk are taken into account.

(3) In the calculations, the statistical confidence level employed cannot be less than 99.75%, and the liquidation period employed less than 2 business days. It is essential that the historical data to be used in haircut calculations is no less than 1 year. For assets, where there is insufficient or no historical data is available, haircuts are determined by benchmarking to multiples calculated for assets with similar qualities. In this framework, valuation multiples have been determined as follows.

Cash/Non-cash	Contribution Share Type	Valuation Multiple
Cash	TRY	1,00
Non-cash	FX (USD or EUR)	0,94
Non-cash	Government Domestic Borrowing Securities	0,91
Non-cash	FX Debt Instruments Umbrella Fund Shares	0,88
Non-cash	FX Equity Umbrella Fund Shares	0,82

(4) The haircuts are reviewed regularly at periods no longer than one year. In circumstances where it is deemed necessary, the multiples are announced to the members by updating without waiting for the regular review.

(5) The validity of the collateral valuation method in-use is checked by Takasbank internal system units, and audited at least once a year.

(6) It is mandatory that at least 30% portion of the required total contribution share be in cash Turkish Lira. Non-cash margin composition limit calculation is made over the total deposited contribution share.

(7) The non-cash assets used as guarantee fund contribution share are assessed under the framework of same rules with non-cash assets eligible as trade collateral.

(8) Contribution share margin call is delivered to accounts with contribution share deficit following end-of-day valuation. Takasbank may also seek contribution share adequacy by valuating contribution shares intraday.

(9) The non-cash guarantee fund assets may be changed in line with the Member's request.

(10) The Government Domestic Borrowing Securities provided as guarantee fund contribution share lose their collateral eligibility at the end of the day before the redemption. The redemption amount is transferred to the cash collateral account.

(11) Members cannot submit guarantees and securities which are issued by themselves or by the banks and companies that they are involved as the same investment group (except for the securities issued by the Undersecretariat of Treasury of the Republic of Turkey and for the guarantees and securities of other banks whose majority of the capital belongs to the Undersecretariat of Treasury) as collateral to Takasbank.

(12) The share of total of the securities and guarantees issued or delivered by any issuer or bank or by other issuers and banks included in the same investment group (except for the securities issued by the Undersecretariat of Treasury of the Republic of Turkey and for the guarantees and securities of other banks whose majority of the capital belongs to the Undersecretariat of Treasury), which are accepted as

collateral by Takasbank, to total collateral accepted by Takasbank for that market cannot exceed 25%. In periodic controls, the order of priority is taken account in liquidation of the collaterals which exceed the 25% threshold and the change request of the collaterals led to limit excess by starting from the collaterals deposited at the end is made via the e-mails sent to the members who deposit them.

Guarantee Fund Usage Principles

ARTICLE 56 - (1) In default management; the non-cash contribution amounts in the guarantee fund belonging to the non-defaulting members shall be started to be converted into cash when the funds that are available for use up to item (d) of the first paragraph of Article 36 of the Central Counterparty Regulation fail to be sufficient and also upon determination that the guarantee fund contribution amounts deposited in cash shall also be insufficient.

(2) The contribution amounts deposited by the members who have participated to the guarantee fund after the occurrence of the relevant default or the contribution amounts deposited by the existing members against the risks they assumed after the occurrence of the default shall not be used.

(3) In situations that necessitate the use of Guarantee Fund, any withdrawal of contribution amount from the guarantee fund shall not be allowed within the time period to be elapsed until the loss incurred as a result of such default has been fully reimbursed.

(4) The use of contribution amounts starts with the most liquid assets; and the ability to quickly be converted into cash constitutes the basis. Cash amounts arising from the conversion of non-cash contribution amounts in the guarantee fund into cash but not used shall be returned prorata to the members whose non-cash contribution amounts have been used.

(5) For the distribution of loss assumed by the guarantee fund to the non-defaulting members, the shares of the members in the guarantee fund shall be taken as the basis.

(6) The members are obliged to re-deposit, within 3 business days, their deposited guarantee fund contribution amounts which have been used within the scope of the default management.

(7) If the loss to be assumed by the guarantee fund seems likely to exceed 50% of the total fund size, the members may be asked to deposit the additional contribution amounts they have undertaken. The Members are obliged to deposit such additional contribution amounts within 5 business days subsequent to the request made thereof. The requests for additional contribution amounts can also be made in tranches. The additional contribution amounts that are not used either in part or in whole for resolving the relevant default shall be returned. If they, albeit requested, are returned in full without being used for resolving the default, then the request for additional guarantee fund contribution shall be deemed not to have been made.

(8) The total contribution amount that may be requested from any Member in one month due to the default of another member cannot exceed the aggregate of the Member's deposited guarantee fund contribution amount obligation calculated for the respective month and its additional guarantee fund contribution amount obligation, if requested. The total additional guarantee fund contribution amount to be requested in a month's time cannot exceed the deposited guarantee fund contribution amount of the member. The

Members may be asked to make contribution at most four times during the period that will elapse from the beginning of April of each year to the end of March of the next year.

(9) If the additional guarantee fund contribution amounts requested from the members due to the default are used either in part or in whole, then the members shall be asked to restore their guarantee fund obligation to the level being calculated pursuant to the item (d) of the first paragraph of Article 36 of the Central Counterparty Regulation. However; the guarantee fund contribution amounts exceeding the maximum loss threshold that any Member would assume in the same month in case of default of another member shall be used only in the event of such Member's own default until the end of the month.

Guarantee Fund contribution amount replenishment obligation

ARTICLE 57 - (1) In case the guarantee fund each cash or non-cash contribution amount of any Member falls below of the amount required to be deposited by that Member, then a call for the replenishment of the guarantee fund contribution amount shall be made to the member. The call for the replenishment of the guarantee fund contribution amount shall be issued by sending messages or making reporting to the customer screens provided by Takasbank. If the call for the replenishment of the Guarantee Fund Contribution Amount is made through the system, the Member shall be deemed to have received the call without any further notice and information. The responsibility of the Member shall begin at the moment the call for the replenishment of the Guarantee Fund Contribution Amount issued by Takasbank is received by the Member. The call for replenishment shall be fulfilled by the Member within 1 business days. If such call is failed to be fulfilled within its time period, then the Member shall be deemed to have defaulted.

Accrual of interest on cash contribution amounts in the Guarantee Fund

ARTICLE 58 - (1) The amount of the guarantee fund contribution amounts deposited in cash Turkish Lira by the Members remaining after the withholding of the amount to be maintained as compulsory reserve shall be given interest by Takasbank with the best possible conditions by also taking the credit risk and liquidity conditions into consideration. The interest accrual process shall be carried out within the limits of Takasbank.

(2) Interest accruals are performed over the account balances of the Members at 15:40. Cash Turkish Lira contribution amounts in the Guarantee Fund accounts shall be given interest by Takasbank and the interest amounts shall be transferred to the relevant accounts on next business day. No interest shall be given on cash contribution amounts deposited to Takasbank after 15:40. The accumulated interest amounts can be withdrawn until the end time of the collateral withdrawal determined in the Article 22.

(3) The accrued interest amount remaining after the deduction of the Banking and Insurance Transaction Tax (BITT), etc., legal costs and the commission to be collected over the gross interest amount by Takasbank at a rate to be suggested by Takasbank and deemed appropriate by the Board from the gross interest amounts earned as a result of the interest accrued on the balance of the guarantee fund cash contribution amounts remaining after the withholding of compulsory reserve shall be credited to the relevant accounts.

Reimbursement of Guarantee Fund contribution amounts

ARTICLE 59 - (1) The contribution amounts of the institutions whose membership has been terminated in accordance with Article 14 and all revenue and rights in respect thereof except for their fixed guarantee

fund contribution amounts in the guarantee fund shall be reimbursed to the relevant institutions by deducting all tax and other legal liabilities that are required to be paid, by also taking into account their obligations arising from the transactions executed in the relevant markets and the payment obligations that Takasbank may face as a result of any default which may occur during the period to be lapsed from the decision date of the Board of Directors regarding the termination of their membership to the date that the termination operations have been completed. In case of a termination of a membership due to merger-acquisitions; in case a member is taking over another member with all assets and liabilities, guarantee fund is reimbursed following the first guarantee fund contribution calculation after merger date. Total positions of two members on the merger date are used for guarantee fund calculation.

(2) Fixed guarantee fund contribution amounts of the institutions whose membership has been terminated shall be returned at the end of the period to be determined by the Board of Directors by taking the maturity dates of all open interests in the market into consideration.

(3) The guarantee fund contribution amounts of the institutions whose membership has been terminated are essentially returned in kind. In cases where they cannot be returned in kind, the fungible repayment shall be made. The contribution amounts that cannot be returned either in kind or fungible shall be returned over their equivalents. In returning the equivalents, the prices on the date the contribution amounts are converted to cash by Takasbank shall be used.

(4) If there is any cash in the guarantee fund contribution amount of the institutions whose membership has been terminated, then the cash shall be returned after deducting tax and other legal liabilities that are required to be paid from the amount that has accrued interest.

CHAPTER TEN

Principles Relating to the Default Transactions

Default

ARTICLE 60 - (1) If one of the following situations occurs, the relevant Member shall be deemed to have defaulted without any further notice.

a) Failure to fulfill the margin call requirements arising after the account updating process performed by Takasbank for the open interest within the time periods specified in accordance with Article 50;

b) For equity based contracts subject to physical delivery; failure to fulfill the settlement obligations within the Borsa Istanbul Equity Market regulations, for EWR contracts subject to physical delivery, failure to fulfill the settlement obligations within the fifth business day until 17:00 (14:00 for the half business days) following the expiration day;

c) Failure to fulfill the obligations to restore the deposited guarantee fund and additional guarantee fund contribution amounts within the time periods laid down in the sixth and seventh paragraphs of Article 56 and in Article 57;

d) Pursuant to the item (b) of the first paragraph of Article 13 of the Procedure; the obligations of the Member are decided to be liquidated by Takasbank.

(2) In case of any default; Takasbank shall not allow the defaulting Member to withdraw its collaterals in its respective accounts during the time period until the obligation has been fulfilled.

(3) Takasbank may grant time to the Member to terminate its default status, at most, until the end of the next business day of the date of default. The provisions of Article 62 shall be applied to the Member who have failed to terminate its default status within the given time period.

Default on Physical Delivery

ARTICLE 61- (1) Without prejudice to the limits stipulated by Article 36 of the Central Counterparty Regulation; the responsibility of Takasbank for the physical delivery transactions shall be limited to the delivery of the asset subject to the physical delivery on the settlement date; and, in case of failure to deliver it on the settlement date, its return by supplying it from the market in accordance with the principles and procedures mentioned below; and in case of failure to return, then its cash consideration calculated again in accordance with the principles and procedures mentioned below and the default interest to be computed till the date of delivery or of the payment.

(2) In physical delivery, in case of default of the member who is responsible for the delivery, the delivery of the asset subject to the physical delivery to the recipient member is essential. The right of the recipient of the physical delivery to claim the value of the assets shall be reserved.

(3) For EWR futures contracts ;

a) If settlement obligations are not fulfilled by the fifth business day, following the settlement date until 17:00, (14:00 for half business days) then the order in the Takasbank EWR DvP System is annulled and member is considered to be in default. The debtor of the physical delivery may be given time to fulfill obligations until 14:30 of the following working day from the settlement date, without prejudice to the provisions of default. The assets are transferred to the creditor on the same day depending upon partial or full deliverance of physical obligations. The receiver of the physical assets are paid the market price for the undelivered physical assets that are past due 17:00 of the day following the settlement date, provided that the receiving party demands it with a written notice until 14:30 of the day following the settlement date.

b) In case cash equivalence is not accepted then the remaining undelivered assets, according to the provisions of default management processes in Article 62, are to be purchased from the Market by Takasbank with best effort. The transaction costs, which incur during the purchase of the undelivered assets by Takasbank from the market, are collected from the membership collaterals of the defaulting member.

c) In cases where the physical delivery is not taking place within five business days, the cash equivalence for the undelivered physical underlying assets of the EWR is to be collected from the physical delivery collateral for the EWR. When determining price for the EWR, the average price that

occurred in the exchange during the date of default, if there were no transactions during the date of the default, then the highest price that occurred in the past five working days is considered. If the aforementioned price is still undetermined then the price to be considered for the EWR will be calculated by the related exchange and informed it to the Bank. In cases where a price difference between the settlement price at the maturity of the EWR and the last price occurred for the EWR during the day of the default is in favour of defaulting party, then this difference is paid to the defaulting party in addition to the aforementioned payments. This payment is collected from the debtor's physical delivery collateral for the EWR at the next working day. If the debtor's collaterals prove to be insufficient then the provisions of Article 62 are applied.

(4) In case of any default in the physical delivery; a default fine shall be applied to the defaulting member within the scope of Article 63. The two-third of the amount calculated for the undelivered portion in accordance with Article 63 shall be paid by Takasbank to the recipient of the physical delivery for the time period to be lapsed for the complete fulfillment of the physical delivery or until the liquidation of the physical delivery debt by cash payment.

(5) If the receivable of the recipient of the physical delivery is paid by Takasbank in cash, then the debt of the debtor of the physical delivery shall also be turned into cash. When the debt of the physical delivery is turned into cash, then the debtor of the physical delivery shall be liable to pay such cash amount together with its default fine to be calculated pursuant to Article 63.

(6) If Takasbank incurs any loss exceeding the default fine due to the non-payment of the debt either in part or in whole, then such loss shall also be indemnified by the defaulting Member.

Default management process

ARTICLE 62 - (1) If the operations of the defaulting Member or its transactions falling under the scope of this Procedure are decided to be terminated or restricted by Takasbank, then the member's power to make any type of disposition on its accounts shall be suspended; and a notification shall be served in respect thereof to the Exchange, the Board and the relevant member.

(2) The cancellation of the trading authorization of the defaulting Member and the relevant trading institution, if any, in the Market shall be requested from the Exchange.

(3) Takasbank may take, but not limited to, one or more than one of the following measures against the defaulting Member in accordance with the relevant articles of the Central Counterparty Regulation:

a) Upon request of the Member after the notice of default; closing out the positions held in the Member accounts without causing any liability on behalf of Takasbank and/or transferring them to a Member who has not defaulted either in part or in whole, together with the collaterals thereof, pursuant to Article 26 of the Central Counterparty Regulation,

b) As to which contract or contracts among those at different maturities that may exist in the accounts will be used is to be decided by Takasbank; closing out the positions either in part or in whole ex-officio by Takasbank reciprocally by the positions in opposite direction and at the same maturity between the accounts, taking positions in opposite direction in the market for the open interest, and for the positions which cannot be terminated through such methods, terminating them reciprocally by the

positions in opposite direction and at the same maturity to be selected between the positions in the portfolio or customer accounts associated with the non-defaulting members,

c) Liquidating the guarantee fund contribution amounts and the non-cash collaterals in the own portfolio of the defaulting Member and in the customer accounts associated with itself which have collateral deficit,

d) Using the transaction collateral surplus of the Member in other markets,

e) Using the guarantee fund contribution amounts of the Member in other markets, provided that it has no risk in the relevant market,

f) Acting in accordance with Article 56 for the use of guarantee fund contribution amounts belonging to non-defaulting Members,

g) Entering into hedging transactions to mitigate risks that may arise from the open interest.

(4) Takasbank may organize a tender to close the open interest. The tender can be cancelled by Takasbank either in full or on portfolio or position basis. Participation to the tender is open to all Members and also to the customers through the Members, however; it is mandatory for the general clearing members. If all positions cannot be transferred as a result of the tenders to be opened, or if the tender is cancelled; then the remaining positions may be transferred compulsorily to the members by Takasbank. Certain factors, such as the risk limits of the members, the position amounts they took over in the tenders and the existence of the counter-positions of the positions to be taken over shall be taken into consideration for the determination of the members to whom the compulsorily transfer shall be made. For the compulsory transfers; theoretical prices, accepted tender prices or prices to be determined by Takasbank by considering the risk threshold that can be assumed in accordance with the relevant legislation can be used.

(5) Takasbank, in case of existence of the conditions referred to in Article 48 of the Central Counterparty Regulation, may make deductions from the profit distributions arising as a result of the account updating process, without closing of the open interest, in order to allocate the losses originating from the defaulting Member.

(6) Despite all efforts for the fulfillment of all obligations resulting from the open interest of the defaulting Member and the risk reduction thereof, if it is determined that the risk generating positions cannot be completely closed out within 3 business days, such positions may be liquidated by cash settlement either partially or fully. Takasbank is entitled to select the counter positions of the positions in the accounts associated with the defaulting Member according to certain criteria such as the risk limits of the members and the amount of counter positions or on a completely random basis. For the terminations to be made in such a way, theoretical prices or prices to be determined by Takasbank by considering the risk threshold that can be assumed in accordance with the relevant legislation may be used for cash settlement. The provisions of the Central Counterparty Regulation regarding the measures to be taken in extraordinary situations shall be reserved.

(7) Deficits arising after the execution of the default provisions of the Procedure and the Chapter Five of the Central Counterparty Regulation on the defaulting member and cannot be covered by the collateral and the guarantee fund contribution amounts of the defaulting Member by Takasbank shall be designated as the loss of Takasbank and of other Members and shall be assumed thereof in an order as laid down in the first paragraph of Article 36 of the Central Counterparty Regulation.

(8) The unused portion, if any, of the collateral and the guarantee fund contribution amounts of the defaulting Member and the funds to be generated from the pursuance of such member shall be used in the first place for paying off the debts accommodated for the liquidation of the obligations of the Member, if any; and for the replacement of the capital that has been committed pursuant to the item (f) of the first paragraph of Article 36 of the Central Counterparty Regulation, if it was used. From the remaining balance, first the additional guarantee fund contribution amounts received from the non-defaulting Members; and then the guarantee fund contribution amounts received from the nondefaulting Members shall be returned. The returns are made on a pro rata basis. No payment or return shall be made by Takasbank to any defaulting Member unless all primary and secondary liabilities arising from the default, including the portion covered from Takasbank's capital, are fully liquidated.

(9) If the capital that has been allocated in accordance with Article 36 of the Central Counterparty Regulation against the risks being assumed was used due to the default, then Takasbank shall restore the used amount within a month. The allocated capital amount to be restored in this way during one year period cannot exceed the amount determined in the beginning of the period. If any default reoccurs within the period of one month to be lapsed until the restoration of the used capital, then the remaining portion of the allocated capital, if any, shall be used. The guarantee fund of the non-defaulting Members shall be used for the portion which cannot be covered. Restoration of the capital shall not necessitate the return of the guarantee fund contribution amounts being used.

Default fine

ARTICLE 63- (1) If the Member, who has been defaulted by not paying its margin call requirements within their time periods, cannot fulfill its obligation from 15:00 of the settlement date (T+1) to EFT closing time then, a default fine calculated at the rate of 50% of the highest among the weighted average overnight interest rates occurred in the repo-reverse repo markets where government securities are traded, CBRT Interbank 47 / 49 Money Market or Takasbank Money Market, that have been formed by the Exchange, shall be applied on the default amount. For the default amounts that have been closed on the settlement date (T+1) after EFT closing time, a default fine at the rate of the double of the highest of the foregoing shall be applied.

(2) The Member, who has been defaulted as a result of the EWR underlying future contracts subject to the physical delivery, shall be charged a default fine over the value of the asset on the settlement date for the time period lapsing from delivery versus payment end time to EFT closing time, to be calculated at the rate of 50% of the highest among the weighted average overnight interest rates occurred in the repo-reverse repo markets where government securities are traded, CBRT Interbank Money Market or Takasbank Money Market, that have been formed by the Exchange. For the default amounts that have been closed on the settlement date after EFT closing time, a default fine at the rate of the double of the highest of the foregoing shall be applied.

(3) If the defaulting Member is granted time to end the default in accordance with the third paragraph of Article 60 or the third paragraph of Article 61, the moment of default shall be taken into account in the calculation of the default fine.

(4) In case of default of the Member, Takasbank shall electronically inform the Member about the calculated default fine on the business day of the late payment of the, the margin call requirement or the physical delivery obligation. The default fine shall be calculated in Turkish Lira also for the foreign currency liabilities. For the conversion of the relevant foreign currency to the Turkish Lira, the foreign currency buying rates announced by the CBRT shall be used. If the default fine amount is less than TL 50, then TL 50 shall be collected as the minimum default fine amount.

5) Default fine is reflected to member together with clearing and settlement fees originated from market transactions and the amount can be monitored via BISTECH Settlement Terminals. In case the Member fails to fulfill the default fine obligation, Takasbank shall have the rights to settle, offset and retention on all assets, rights and receivables of the Member with itself.

Currency

ARTICLE 64- (1) For the fulfillment of cash obligations arising from the clearing and settlement operations, the usage of the currency in which the trade is conducted shall be the principal.

(2) Takasbank may allow the settlement of cash clearing and settlement obligations to be performed by the use of different currencies other than the currency in which the transaction was executed.

CHAPTER ELEVEN

Miscellaneous Provisions

Fees and Commissions

ARTICLE 65 - (1) For the fees and commissions to be charged by Takasbank to its Members in relation to the services it provides within the scope of this Procedure, the provisions of Article 50 of the Central Counterparty Regulation shall be applied.

Disciplinary Provisions

ARTICLE 66 - (1) The disciplinary provisions stipulated in the Chapter Seven of the Central Clearing and Settlement Regulation shall apply to the Members who fail to comply with the obligations stipulated in the Procedure.

Measures to be taken in extraordinary situations

ARTICLE 67 - (1) Takasbank shall be authorized to determine the measures to be taken in case of occurrence of the extraordinary situations where it foresees the clearing and settlement operations in the Market may be adversely affected, and to execute these measures accordingly. In such cases, Takasbank shall also be authorized to take the measures specified in the second and third paragraph of Article 48 of the Central Counterparty Regulation.

TEMPORARY ARTICLE 1 - (1) For the year following the Market's BISTECH migration, Guarantee Fund calculations may be performed at periods shorter than the 3 months terms specified in Article 54, Paragraph 7 of this Procedure. Takasbank assesses the final results in light of the market conditions. During the 3 months period after the migration, guarantee fund liabilities may be kept fixed.

(2) ¹ The principles as per paragraph of Article 50 of this Procedure regarding margin call and default obligations are applied for the 6 months following BISTECH migration. Following the end of this period, to end partial position change and TRY margin deposit and margin call or default obligation; the following conditions must be satisfied altogether.

(a) The size, which shall be reached by adding the difference between the initial margin requirement subject to margin call on the account, and the initial margin calculated after closing the position, to the deposited cash margin, must be larger than the margin call value.

(b) That the deposited cash margin amount is equal to the sum of the final loss and the net option premium payable or larger.

(c) That the deposited cash margin meets the minimum cash requirement calculated over the margin requirement, which is subject to margin call.

Enforcement

ARTICLE 68 - (1) The Procedure shall enter into force on the date of announcement

Execution

ARTICLE 69 - (1) The provisions of this Procedure shall be executed by the General Manager.

¹ General Letter date , 04.10.2017, No.1373: The date of transition to the implementation of the regulation on collateral fulfillment and default liability in Paragraph 2 of Provisional Article 1 will be announced later as the system developments are still continuing.

