

İSTANBUL TAKAS VE SAKLAMA BANKASI A.Ş.

BORSA İSTANBUL A.Ş. DIRECTIVE ON SWAP MARKET CLEARING AND SETTLEMENT AND CENTRAL COUNTERPARTY SERVICE PRINCIPLES

CHAPTER ONE General Provisions

Purpose

ARTICLE 1 - (1) The purpose of this Directive is to stipulate the principles and procedures regarding membership, risk management and collateral, clearing and settlement, default, discipline, revenues and other issues related with the central counterparty service to be provided in Borsa Istanbul A.Ş. Swap Market by İstanbul Takas ve Saklama Bankası A.Ş. as the central clearing and settlement institution.

Scope

ARTICLE 2 - (1) This Directive covers the matters regarding membership, risk management and collateral, clearing and settlement, default, discipline, revenues and other issues related to central counterparty services to be provided by İstanbul Takas ve Saklama Bankası A.Ş. as the central clearing and settlement institution in Borsa Istanbul Swap Market.

Basis

ARTICLE 3 - (1) This Directive has been issued in accordance with articles 77 and 78 of the Capital Markets Law No. 6362 published in the Official Gazette no. 28513 dated 30/12/2012, article 10 of the Law on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions published in the Official Gazette no. 28690 dated 27/06/2013 and İstanbul Takas ve Saklama Bankası A.Ş. Central Clearing and Settlement Regulation published in the Official Gazette no. 28711 dated 18/07/2013, Istanbul Settlement and Custody Bank Inc. Central Counterparty Regulation published in the Official Gazette no. 28735 dated 14/08/2013 and the Regulation on Activities of Payment and Securities Settlement Systems published in the Official Gazette no. 29044 dated 28/06/2014.

Definitions and Abbreviations

ARTICLE 4 - (1) The following terms used in this Directive 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 executed.
- b) **Exchange/BIAS:** Borsa Istanbul A.Ş.
- c) **Multiple Position Account:** The accounts opened at Takasbank in the name of the CCP members, where positions of the members' proprietary portfolio or of their customers are collectively monitored but where, in any event, the own positions of the CCP member and the positions of its customers are segregated.
- ç) **Appreciated Collateral:** The amount of the total deposited collateral being calculated by the application of margin haircuts, group limits and sub-group limits.

- d) **GDDS:** The government domestic debt securities.
- e) **EFT:** The Electronic Fund Transfer System.
- f) **General Manager:** The General Manager of İstanbul Takas ve Saklama Bankası A.Ş.
- g) **General Regulation:** The General Regulation on the Establishment and Operating Principles of the Central Clearing and Settlement Institutions published in the Official Gazette no. 28662 dated 30/05/2013.
- ğ) **Law:** The Capital Markets Law No. 6362 published in the Official Gazette no. 28513 dated 30/12/2012.
- h) **Precious Metal:** Precious metals defined in resolution 32 and whose standards are determined,
- ı) **Board:** The Capital Markets Board.
- i) **CCP:** The Central Counterparty.
- j) **Central Counterparty Regulation:** İstanbul Takas ve Saklama Bankası A.Ş. Central Counterparty Regulation published in the Official Gazette no. 28735 dated 14.08.2013.
- k) **Central Clearing and Settlement Regulation:** Istanbul Settlement and Custody Bank Inc. Central Clearing and Settlement Regulation published in the Official Gazette no. 28711 dated 18/07/2013.
- l) **Market:** Borsa Istanbul Inc. SWAP Market.
- m) **Portfolio-based Collateralization:** Calculation of the collateral amounts to be received by Takasbank from the CCP members by considering the risk mitigating effects of the correlations between the assets in the same account.
- n) **Position:** Settlement debt and receivables arising in relation to the transactions conducted in the Market.
- o) **Direct CCP Member:** The member authorized to perform only its clearing and settlement transactions and/or those of its customers.
- ö) **Procedure:** The implementing principles containing the procedures for operation and practices in accordance with the rules and principles stipulated in the Directive, which have been approved by the General Manager.
- p) **System:** Takasbank system established for clearing and settlement of the transactions being conducted in BIAS Istanbul Swap Market.
- r) **Clearing and Settlement:** All of the processes that facilitate cash transfer between the parties through fulfillment by the members, within the time period and on the conditions set by Takasbank, of the obligations arising in relation to the transactions conducted in the Market and in accordance with the collateral being deposited.
- s) **Collateral Received for Clearing and Settlement:** The amount collected from the members for the securities to which CCP service is not provided, in an effort to not to get affected from the risk of any price change of such securities subject to default during the time period elapsed from the occurrence of an event of default to its resolution
- ş) **Takasbank:** İstanbul Takas ve Saklama Bankası A.Ş.
- t) **Margin accounts:** The accounts opened at Takasbank in the name of the CCP members, in which the collateral required to be maintained by the members due to the positions of their portfolio or of their customers is monitored.
- u) **CBRT:** The Central Bank of the Republic of Turkey.

- ü) **Member:** The CCP members authorized, pursuant to article 6 of the Central Counterparty Regulation, to become a party to the clearing and settlement services provided by Takasbank as the central counterparty in the Market.
- v) **Investment Institution:** The brokerage houses that have received permission from the Board to engage in investment services and activities and other capital market institutions whose establishment and operating principles are determined by the Board to engage in investment services and activities, and the banks.
- y) **Directive:** Istanbul Settlement and Custody Bank Inc. Directive on Borsa Istanbul Inc. Swap Market Clearing and Settlement and Central Counterparty Service Principles.
- z) **Board of Directors:** The Board of Directors of Takasbank

CHAPTER TWO

Principles for Membership

Membership

ARTICLE 5 - (1) The investment institutions meeting the requirements in article 6 of the Directive and the other institutions authorized by Borsa İstanbul to trade in the market may become a member to the CCP service to be provided by Takasbank for the transactions conducted in the Market provided that they are authorized by the Board of Directors.

(2) CBRT is the natural member of the CCP service to be provided by Takasbank in the System for the transactions conducted in the Market, without requiring any application and assessment.

(3) The members trading in the Market are considered as a Direct CCP Member.

CCP Membership conditions

ARTICLE 6 - (1) The determination and assessment of the fulfillment of the membership requirements belong to Takasbank, and as a minimum, the following conditions must be met for membership:

- a) The conditions for membership of the Central Clearing and Settlement Regulation must have been met.
- b) The trading authorization in the Market must not have been revoked due to any opposition to the legislation.
- c) The CCP service-related agreements and/or letters of undertaking whose content is determined by Takasbank must have been signed and submitted to Takasbank.
- ç) Their financial structure must be at a level to fulfill their commitments towards Takasbank.
- d) Other information and documents to be requested by Takasbank must have been submitted.
- e) The declaration in the format compatible with the template set by Takasbank for their data processing, risk management, internal control and internal audit systems must have been approved by the Board of Directors of the Members and submitted.
- f) For the brokerage houses to become a direct CCP Member;
 - i. They must have a limited or general custody service license pursuant to the relevant legislation,

- ii. They must have a minimum equity capital of 10.000 TRY,
 - iii. They must hold at least D rating as a result of the internal rating conducted by Takasbank
- g) For the banks to become a direct CCP Member;
- i. They must have a limited or general custody service authorization pursuant to the relevant legislation.
 - ii. They must have a minimum equity capital of 50.000.000 TL.
 - iii. They must hold at least D rating as a result of the internal rating conducted by Takasbank.
- (2) As part of the internal rating study conducted by Takasbank to determine the credit rating of the company, the financial statements of such company, its activity report, company introductory information form, company key information form, its trading volumes in the markets, TL custody balances, default and intelligence information, and the credit ratings received from the rating agencies, if any, and the market intelligence information and the news featured in visual and printed media are used. In its web site, Takasbank announces the parameters it has applied in the internal rating methodology it adopts and the impact of these parameters on the credit ratings.
- (3) Takasbank is authorized to determine the minimum criteria it would seek for technical infrastructure, data processing, risk management, internal control and internal audit systems, allot time for compliance to the institutions failing to meet the criteria being sought, get commitment and check whether or not such criteria have been met.
- (4) The Board of Directors is authorized to increase the minimum equity capital amounts or decrease them up to their previous level by taking the relevant capital market and banking regulations as well as the market conditions into consideration.

Membership application and admission

ARTICLE 7 - (1) The institutions to be applied for membership are required to submit their application request addressed to the Takasbank Head Office together with a letter accompanied by the information and documents affirming the fulfillment of the conditions prescribed for membership in this Directive and send the information and documents referred to in article 10 of the Central Counterparty Regulation as well as the following documents by appending them to the said letter to Takasbank. The institutions being a member to BIAS Debt Securities Market are only required to fulfill the obligations referred to in the item (ç) among the following obligations given in this paragraph.

- a) Membership application form,
- b) Authorization certificate (notarized copy),
- c) Document to be received from the Exchange, which verifies that the investment institutions applying for a direct CCP membership are operating in the Market.
- ç) Borsa Istanbul Swap Market Central Counterparty and Clearing and Settlement Operations Participant Agreement and Pre-Agreement Information Form.
- d) Letter of Undertaking for Cash, Assets, Collateral, Conditional Remittance and Electronic Funds Transfer (EFT) Instruction.
- e) Implementation Agreement for the Customer Instructions to be sent to Istanbul Settlement and Custody Bank Inc. via Fax Machine.
- f) Other documents to be requested by Takasbank in accordance with the relevant legislation.

(2) In order for the membership applications to be eligible for assessment by Takasbank, the information and documents referred to in the first paragraph of this article as well as other documents to be requested by Takasbank must have been completed. The filed applications shall be reviewed by Takasbank in terms of whether the conditions laid down in article 6 have been met or not. The decision made by Takasbank on the application shall be notified to those concerned within 2 months in writing.

(3) In order to commence its operations with Takasbank, the institution whose membership application is accepted must, within 1 month from the notification that its membership application has been found eligible;

- a) Deposit its membership admission fee
- b) Deposit its membership collateral,
- c) Deposit its Guarantee Fund contribution,
- ç) Authorize the personnel who will trade on behalf of the Member in Takasbank system.

(4) Otherwise the membership permission given to the relevant institution shall be revoked. The date on which such obligations have been fulfilled shall be deemed the date on which the institution has become a member to the central counterparty service provided in the Market and the member shall become entitled to trade from that date.

(5) The institutions that have been deposited BIAS Debt Securities Market membership collateral shall be exempt from the membership collateral. The institutions which are not a member to the Debt Securities Market and have not deposited the membership collateral shall be obliged to deposit collateral in accordance with the membership collateral principles stipulated in the Debt Securities Market Directive on Clearing and Settlement and Central Counterparty Service Principles.

General obligations of the members

ARTICLE 8 - (1) The Members are obliged to comply with the following issues:

- a) Act in accordance with all rules and principles stipulated by this Directive and other relevant legislation for the market clearing and settlement transactions and the central counterparty service.
- b) Behave in accordance with the principles of honesty and good faith towards their customers and other members.
- c) Deposit the guarantee fund contributions stipulated by Takasbank,
- ç) Take all necessary measures to ensure sustainability of the internal control, risk management and internal audit mechanisms required to become a CCP member.
- d) Cover the collateral to be deposited for the portfolio accounts entirely from the assets under their possession.
- e) Inform their customers of the fact that the positions of other customers are also monitored in the position accounts placed under the member, the collateral associated with such accounts shall be used for the total risk arising from the multiple position account and it is acknowledged by Takasbank that collateral associated with these accounts belong to the member.
- f) Cover the collateral to be deposited for the positions of their customers from their own collateral or from those on which they have gained the right of disposition through the transfer of ownership agreements compatible with the Law.
- g) If the collateral deposited for the customer positions have been obtained from the customers or other persons and entities through transfer of ownership agreements, establish a sound recording

and monitoring system which would ensure safekeeping of transfer of ownership agreements and matching of the customers, persons and entities from which the collateral have been obtained with the collateral deposited in the relevant position accounts.

ğ) Act in accordance with all rules and principles stipulated in the Law and other relevant regulations related to the monitoring and safekeeping of customer assets and collateral.

h) Fulfil the dues, fees, commissions and other obligations requested by Takasbank within their time period.

ı) Adapt the system revisions to be made by Takasbank within the prescribed time periods and participate in the tests.

i) Establish constant reconciliation between the position and collateral accounts at Takasbank and the records of the portfolio and customer accounts at itself.

j) Deposit the collateral and the guarantee fund contributions to the relevant margin accounts at Takasbank.

k) Furnish any information and document to be requested on issues deemed necessary by Takasbank and the Board in relation to their business and transactions within the scope of this Directive, and provide all type of support in the investigations to be carried out by those commissioned by Takasbank and the Board.

l) In addition to the books and records they are required to keep legally, keep other records determined by Takasbank, issue the information and documents in due form; and convey them to Takasbank in a periodic manner or at times requested by Takasbank, and maintain such documents and records for a period of 1 year.

m) Fulfill other obligations under this Directive in a complete manner and within their time period.

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

Restricting the member activities

ARTICLE 9 - (1) The activities of the members under this Directive may be restricted by Takasbank in the following situations.

a) Removal of membership or suspension of activities in the markets or capital market instruments in which the clearing and settlement service is provided pursuant to article 13 of the Central Clearing and Settlement Regulation or article 14 of Central Counterparty Regulation.

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

c) Identification of any unfavorable situation for the member such as protest, seizure, provisional injunction, etc., or temporary or permanent suspension of its activities, cancellation of its relevant operating permit, prohibition to conduct any transaction for the capital market instruments traded in any market at BIAS for any reason, decision rendered on its gradual liquidation or bankruptcy or receipt of any negative intelligence about it.

ç) Determination of the fact that the credit worthiness of the Member is either impaired or does

not exist as a result of the intelligence, financial analysis and/or rating study periodically conducted by Takasbank.

- (2) The Members cannot trade on the accounts belonging to those who have been banned from trading by the Board and have similar limitations thereof.
- (3) If any situation referred to in this article occurs, Takasbank may resolve the outstanding positions of the Member to be liquidated either in part or in whole.
- (4) If the Member's activities are restricted for reasons referred to in this article, the situation shall be notified to the Exchange, the Board and the relevant public authority.

Terminating the membership

ARTICLE 10 - (1) The CCP membership may be terminated by the Board of Directors' decision in the event of the following situations;

- a) Determination by Takasbank that any one of the CCP membership conditions set forth in this Directive and other relevant regulations has been lost.
- b) Determination by Takasbank that risks of significant nature that would jeopardize the secure and uninterrupted functioning of the CCP system have arisen due to failure to fulfill the obligations stipulated in this Directive or other relevant regulations.
- c) Failure of the CCP members whose activities have been restricted in accordance with the provisions of the second paragraph of article 14 of the CCP Regulation to fulfil their relevant obligations within the six months' period granted to them pursuant to the sixth paragraph of the same article.
- ç) Upon the CCP member's own request.

(2) Those intending to terminate their CCP membership in accordance with the item (ç) of the first paragraph of this article shall notify Takasbank of the situation in writing. However, the relevant member intending to terminate its CCP membership must have fulfilled all of its obligations under the Directive and other relevant regulations. In such cases, the Board of Directors may consent the termination of the CCP membership. If the request for termination of the membership is submitted without fulfilling all obligations under the Directive and other regulations, the member shall be given a period of 30 days for fulfilling such obligations. The member that fulfills such obligations within the period of time granted shall notify Takasbank of such case in writing, and the request for termination by the member shall be addressed at the next meeting of the Board of Directors following such notification. Members who fail to fulfill such obligations within a period of 30 days may only apply for terminating their membership once they have closed all their positions.

(3) Takasbank receives the opinion of the Exchange in terminating the membership of a CCP member.

(4) Even in the case of termination of the CCP membership, the obligations of such institution against Takasbank under this Directive and other relevant regulations in relation to the transactions conducted until the date of the Board of Directors' decision regarding the termination of membership shall prevail.

(5) The Board, other relevant public entities and institutions and the Exchange must be immediately informed of the member whose CCP membership has been terminated.

CHAPTER THREE

Clearing and Settlement and CCP Service Principles

Takasbank's liability

ARTICLE 11 - (1) Takasbank is the central counterparty with the open-offer method for the transactions conducted in the Market and settled in the System. For these transactions, Takasbank undertakes completion of clearing and settlement by acting as buyer against the seller and as seller against the buyer. Without prejudice to the limitations set forth in article 36 of the Central Counterparty Regulation and the market liquidity conditions, Takasbank assumes, in its capacity as the central counterparty, the clearing and settlement obligations arising from the transactions conducted in the Market by the Members in accordance with the principles and procedures stipulated in this Directive and the legislation.

(2) In the open-offer method, the liability of Takasbank against the parties of the transaction starts at the moment the buy and sell orders are matched in the Market and ends with the completion of the clearing and settlement at the due date of the transaction. For the transactions being cancelled by the Exchange, the liability of Takasbank against the parties shall cease at the moment the updates regarding the cancellation of the transactions are made by Takasbank. Should the limit allocated by Takasbank to the Member on a transaction basis in accordance with the fourth paragraph of article 5 of the Central Counterparty Regulation be exceeded, Takasbank shall, without prejudice to the provisions of article 23, not be liable for any loss arising out of the transactions it has refrained from.

(3) For the transactions conducted in the Market, Takasbank deals only with the Members. Takasbank shall not be liable for the obligations of the Members to their customers.

(4) In covering the liquidity needs and the losses to be incurred in case of any default, the provisions stipulated in Chapter Five of the Central Counterparty Regulation shall apply as to be limited to the liquidity conditions and constraints.

Marketplaces and platforms to which clearing and settlement and CCP service are provided

ARTICLE 11A- (1) Clearing and settlement of all transactions conducted in the marketplaces and platforms under the structure of the Market is performed by Takasbank except for the exemptions imposed by the Board. The provision of article 17 of the Central Clearing and Settlement Regulation thereof shall be reserved.

(2) Clearing and settlement of the foreign currency denominated transactions conducted in the marketplaces/platforms under the structure of the Market shall be concluded by Takasbank by using the accounts held at the correspondent bank and/or Takasbank.

(3) The Board of Directors of Takasbank may, if deemed appropriate by the Board, and upon request of the Exchange or by obtaining the Exchange's opinion, take a decision to provide only the clearing and settlement service and not to provide the CCP service or to terminate the CCP service for some of the marketplaces or platforms already existing or to be newly established within the Market or for some precious metals already traded.

(4) The clearing and settlement operations for the marketplaces/platforms and/or precious metals/contracts to which the CCP service will not be provided based on the Board's affirmative opinion shall be performed by Takasbank in accordance with the provisions of Istanbul Settlement and Custody Bank Inc. Central Clearing and Settlement Regulation and in line with the principles and procedures as per the rules stipulated in the Directive and the details there of shall be stipulated by the procedures.

(5) Takasbank has no guarantee for completion of settlement of the marketplaces/platforms and/or precious metals/contracts to which CCP service is not provided. Completion of clearing and settlement operations in due time is conditional upon the fulfillment by the obligor members of their obligations on time

(6) Collateral at an amount calculated in accordance with the methods determined by Takasbank may be received from the members as to be used for any default which may arise from the clearing and settlement transactions of the marketplaces/platforms and/or precious metals/contracts to which the CCP service is not provided in the Market. Collateral received for clearing and settlement shall be collected from the members to ensure not to get effected from the price change risk of the foreign currency and/or precious metal subject to default during the period from occurrence of any default to its resolution. Takasbank's liability for any default related to the marketplaces/platforms and/or precious metals to which CCP service is not provided shall be limited to the collateral received for clearing and settlement. The principles and procedures for default management shall be stipulated in the Procedure.

Settlement date and period

ARTICLE 12 - (1) The settlement of the transactions conducted in the Market shall be made on the same day (T+0) and the settlement of the future-dated transactions shall be made on the value date.

(2) In determining the settlement periods, the business days on which Takasbank, the correspondent bank and the Market are open shall be taken into account.

(3) The settlement procedures to be applied on half-days shall be determined and announced to the members by Takasbank.

(4) It is not possible for the parties to conclude the settlement transactions by fulfilling their obligations before the settlement date.

(5) The settlement cut-off times of the Market shall be determined in the Procedure by obtaining the opinion of the Exchange

(6) Cash and precious metal settlement obligations related to the transactions conducted in the Market shall be fulfilled within the hours designated in the Procedure. Otherwise the default provisions shall be applied.

(7) The settlement periods can be temporarily changed by the General Manager due to the problems arising from the clearing and settlement, custody, payment or market operating systems.

Currency

ARTICLE 13 - (1) In the payment of obligations arising from the clearing and settlement transactions, the currency in which the transactions are conducted shall be used.

(2) Takasbank may also allow fulfillment of the obligations over any currency different from the currency in which the transactions are conducted in accordance with the principles stipulated in the Procedure.

Finality of settlement

ARTICLE 14 - (1) The settlement instructions and transactions and the payment operations arising from the transactions conducted in the Market can neither be revoked nor can be cancelled including the state of temporary or permanent suspension of the member activities and initiation of liquidation actions

before the administrative and judicial authorities.

- (2) The Exchange shall be informed for immediate suspension of the transactions at the moment when suspension of the member's activities or any decision that may produce the same consequence has been notified to Takasbank.
- (3) The settlement operations of all contracts executed in the Market and transferred to the clearing and settlement system shall be concluded in accordance with the provisions of this Directive.
- (4) Collateral established by the member by its available cash and security balances held at Takasbank shall be used to terminate its obligations.

Netting

ARTICLE 15 - (1) In calculating the net payable or receivable amount for the transactions conducted in the Market, employing multilateral netting method on currency and precious metal basis by observing customer/portfolio segregation is essential.

- (2) The marketplaces/platforms and/or precious metals to which CCP service is provided and the marketplaces/platforms and/or precious metals to which CCP service is not provided are not netted-off together.

Clearing and settlement principles

ARTICLE 16 - (1) In the clearing and settlement operations, the delivery versus payment and the payment versus payment principles shall be applied. Pursuant to the principle, the settlement receivables of the members failing to fulfill their settlement obligations on the settlement date shall not be paid.

- (2) The receivables shall be paid partially for obligations fulfilled partially on the settlement date.

Rectifying the transactions conducted in the Market

ARTICLE 16/A- (1) Rectifying the transactions conducted in the Market are performed in Takasbank system. The principles and procedures for transaction rectification and the method to be used shall be determined by the Procedure and announced to the members.

Market clearing and settlement operations

ARTICLE 17 - (1) For the transactions conducted in the Market, Takasbank deals only with the Members.

- (2) On the maturity and value date of the transaction settlement obligations and cash/precious metal receivables are calculated under the breakdown of client and portfolio transactions of the member.
- (3) The obligations of the members arising from their transactions subject to the clearing and settlement shall be fulfilled until the settlement date cut-off time by way of payment by the members. Members with precious metal debts fulfill their obligations by using their precious metal accounts opened at Borsa Istanbul, and members with cash debts using the Turkish Lira and foreign currency cash debt coverage accounts opened at Takasbank
- (4) The rights and obligations of the members arising from their transactions subject to settlement shall be concluded on account by using the relevant accounts designated by Takasbank.
- (5) It is possible to partially fulfill the settlement obligations and the receivable distributions are performed partially by Takasbank for the obligations fulfilled partially.

- (6) Transactions in the market are monitored in two separate risk groups; in the “Member Risk Group” for the proprietary portfolio of the members and in the “Customer Risk Group” for the transactions conducted on behalf of the customers.
- (7) In case the member has any debt in both risk groups, the partially paid amounts shall be used at first to pay off the debt of the “Customer Risk Group”.
- (8) If the member to whom the release of receivable is made has any debt to another risk group, the released receivables shall be offset against the debt of the risk group to which the member is indebted.
- (9) In case the members who have not fulfilled their collateral obligation will have clearing receivables in Turkish Lira and foreign currency, the release of receivable of these members shall firstly be made up to the margin deficit to the Turkish Lira or Foreign Currency denominated collateral accounts depending on the currency to be received. The remaining receivable shall be transferred to their free current accounts at Takasbank.
- (10) The settlement receivables distributed between the receivable distribution cut-off time specified in the Procedure and the post-EFT closing time shall be transferred to the recipient Bank’s required reserve account at CBRT.

Variation margin settlement operations

ARTICLE 18 - (1) The variation margin settlement process includes the settlement of the variation margins variation margin refund amount which is paid at the value date and their financing cost.

(2) The variation margin shall be calculated in Turkish Lira at the end of each day to neutralize the internal value of the swap transaction conducted in the Market and the settlement operations shall be performed in Turkish Lira. In the calculations, the exchange rate and the precious metal price computed based on the criteria stipulated in the procedure shall be used. In determining such criteria, the opinion of the Exchange shall be obtained.

(3) In determining the receivables and debt arising from the valuation, applying the multilateral netting method by reciprocally offsetting the debts and receivables and transforming them to a single debt or receivable in client/portfolio segregation is essential. In the settlement operations, the Free of Payment (FOP) principles shall be applied.

(4) Net TL denominated cash receivables or debts resulted from the netting shall be displayed in the member screens.

(5) The obligations of the members arising from their transactions subject to the settlement shall be fulfilled by way of payment by the members until the settlement date cut-off time by using the debt coverage accounts opened at Takasbank for each member and announced in the Procedure.

(6) It is also possible to partially fulfill the settlement obligations, and partial settlement shall be made against the partially fulfilled obligations at the time periods set by Takasbank. Settlement shall be made at the time intervals set by Takasbank depending on the pool balance by starting from the lowest receivable.

(7) The settlement receivables shall be transferred to the members’ free current accounts at Takasbank. However; the receivable distribution of the members not having fulfilled their collateral obligation shall firstly be made up to the margin deficit to their Turkish Lira denominated collateral accounts. The remaining receivable shall be transferred to their free current accounts at Takasbank.

(8) Transactions executed at the market on behalf of members’ portfolio and clients are monitored as two different risk groups “Member Risk Group” and “Client Risk Group” respectively. The variation margin for contracts for which CCP service is not provided cannot be netted with other contracts.

(9) In the case that the member has settlement obligation for both risk groups, partial fulfillments are first used to close out “Client Risk Group” debt.

CHAPTER FOUR

Account Operations

Account Structure

ARTICLE 19 - (1) All members intending to trade in the Market are obliged to open their cash, trade margin and guarantee fund accounts at Takasbank, the precious metal accounts at Borsa İstanbul A.Ş.

(2) The relevant accounts shall be opened automatically for the members holding an account at Takasbank.

Account Types

ARTICLE 19/A- (1) The position and collateral accounts associated with the trading accounts can be opened at Takasbank in two different types: the “Customer” and the “Portfolio”. The portfolio account is the account in which the transactions conducted by the member for its own portfolio is monitored. Monitoring customer positions in the multiple position accounts in a collective manner is essential.

(2) Customer and/or portfolio segregation shall be made for the collateral accounts opened for the marketplaces/platforms and/or precious metals/contracts to which the CCP service is not provided pursuant to the consent of the Board.

(3) The members shall monitor the positions and collateral of their own portfolio and the customer positions and collateral in a separate manner in the accounts to be opened at Takasbank. Collateral deposited by the members to the collateral accounts associated with the multiple position accounts by Takasbank shall be deemed to belong to the Member.

Segregation

ARTICLE 20 - (1) In the Market, the customer transactions, positions and collateral are monitored in the multiple trading and position accounts opened and linked to the Member and in the margin accounts associated with these accounts, in a separate manner from the Member’s own transactions, positions and collateral.

(2) Transactions, positions and collateral of the member’s own portfolio are monitored in the multiple trading and position accounts to be exclusively opened for the members and in the margin account associated with these accounts.

Account migration

ARTICLE 21 - (1) The positions monitored in the position accounts and the collateral associated with these positions can be migrated by Takasbank between the CCP members upon instruction of the transferee and transferor CCP members, if deemed appropriate by Takasbank. In such a case, the transferor CCP member shall obtain the written consent of its customers whose positions and collateral are to be transferred.

(2) To be able to migrate the accounts in which the positions of several customers are held, the instruction of all customers holding positions in these accounts shall be required. Collateral associated with the position accounts for which migrating instructions have been given by the customers shall be

migrated by the instruction of the member.

(3) Takasbank's right to refuse the account migration requests with respect to the soundness of clearing and settlement operations and the security of settlement shall be reserved.

(4) If the positions monitored in the accounts of any member whose membership activities have been restricted or whose membership has been terminated due to default or for other reasons are transferred together with the collateral associated with these positions to another member, the migrating transactions shall be conducted by Takasbank;

a) If any pre-designation for the transferee member has been made in the agreement signed between the transferor Member and Takasbank; in accordance with the provisions stipulated in the agreement.

b) If, although no pre-designation regarding the transferee member has been made in the agreement signed between transferor Member and Takasbank, the transferor member makes an agreement with the transferee member until the date on which the migrating will be made; in accordance with the provisions stipulated in that agreement.

c) If no designation has been made in line with the provisions of the item (a) and (b) of this paragraph, to the extent that Takasbank achieves to find a transferee Member.

(5) Should the account migration be made, the collateral held in the transferred accounts cannot be withdrawn until the reconciliation is achieved between the records of Takasbank and those at the member whose activities have been restricted or whose membership has been terminated. Provisions regarding any proceeding pursued by the administrative and judicial authorities shall be reserved.

(6) Accounts failed to be migrated due to unable to find a member to take over the positions and collateral, or unavailability of sufficient time to do so or because of margin deficit, or those having any margin deficit after the liquidation of positions may be made subject to liquidation in accordance with the principles of Chapter Five of the Central Counterparty Regulation. The collateral balance to be occurred after the liquidation of positions in the accounts failed to be migrated due to unable to find a transferee member shall be returned pursuant to article 27 of the Central Counterparty Regulation.

(7) For the accounts linked to a member whose membership activities have been restricted or whose membership has been terminated due to default or for other reasons; if such accounts are related to the marketplaces/platforms to which CCP service is not be provided in accordance with the Board permission or the precious metals/contracts held in the accounts are those of the precious metals/contracts to which the Board has given permission for non-provision of CCP service, then Takasbank may not provide migration service for the positions related to such positions.

CHAPTER FIVE

Risk Management and Collateralization Principles

Risk management

ARTICLE 22 - (1) The risk management in the Market is performed by Takasbank.

(2) Transactions conducted in the market by the member on its behalf are monitored under the "Member" account, whereas the transactions conducted by them on behalf of their customers are monitored under the customer account opened in the form of a multiple position account. Risk management is carried out over these 2 accounts/risk groups.

(3) The margin requirement of each account/risk group is calculated in a separate manner and the collateral adequacy of each position account is controlled separately.

- (4) In the market, pre-trade, at-trade and post-trade risk management processes are applied. The opinion of the Exchange shall be obtained for the pre-trade risk management processes.
- (5) Rules for the under-collateralized accounts and for the transactions of the accounts on which there is a margin call shall be stipulated in the Procedure.
- (6) The settlement positions, guarantee fund contributions and collateral held in the members' accounts opened by them at Takasbank shall be made subject to updating process by Takasbank. Margin calls are issued through the member screens provided by Takasbank or via reporting. If the margin call is placed over the system, the member shall be deemed to have received the call without any need for further notice and warning. The responsibility of the member starts upon receipt by the member of the margin call served by Takasbank.
- (7) The risk management processes to be applied by Takasbank during the day and at the end of the day, the content of the model and/or parameters to be used for calculating the collateral and the calculation methods, and the margin restoration deadlines shall be explained in the Procedure.
- (8) Default penalty shall be applied for the accounts failing to fulfil their margin obligation until the time designated in the Procedure, and the settlement cash receivables shall not be distributed in cases when the margin is failed to be restored.
- (9) In calculating the collateral amount received for clearing and settlement in relation to the marketplaces/platforms and/or precious metals/contracts to which CCP service is not to be provided in accordance with the Board permission, the method and parameters applied to the marketplaces/platforms and/or precious metals/contracts to which CCP service is provided shall be used. Other principles and procedures for collateral received for clearing and settlement shall be stipulated in the Procedure.
- (10) If the difference between the theoretical price calculated by Takasbank and the maturity rate determined by Takasbank at the starting value of swap transactions in the Market is above the ratio/amount determined by Takasbank, it may receive additional collateral from the relevant party, limited to the present value of the difference. The criterion for the determination of the ratio/amount is determined by taking into account the market conditions, the nominal/proportional size of the difference and its share in the collateral accounts.

Risk limits

ARTICLE 23 - (1) Takasbank defines risk limits to the Members based on their financial capability. Risk limits can be determined separately for the Market but can also be determined in total for all markets. Risk limits are determined over the collateral amounts required to be held due to the positions carried by the Members in the markets. It is notified to the members as notional amount.

- (2) The limit determined on a member basis is notified by Takasbank only to the relevant member.
- (3) Whether or not the member's total required collateral resulting from all positions it has taken for itself and its customers in all markets to which CCP service is provided exceeds its risk limit is also checked during the day.
- (4) Non-transmission of any order by the member exceeding its risk limit is essential. The responsibility thereof shall belong to the member.

CHAPTER SIX

Principles Regarding Collateral

Collateral

ARTICLE 24 - (1) The collateral shall be requested from the Members to cover the risks arising from the positions taken in Borsa Istanbul Swap Market. The collateral is received at the beginning to cover any exchange rate change that may occur in the Market during the period to be elapsed from the moment in which the default occurs to its resolution in the event the member falls into default. In determining the statistical parameters constituting the basis of the collateral, the confidence levels and holding periods to be designated in the Procedure shall be used provided that they shall not be less than 99% and 2 days respectively. The historical data sets to be used in the volatility calculations should cover, at minimum, the last 12 months' period, if obtainable.

(2) In calculating the margin requirements for the positions which CCP Service is provided in the Market, the portfolio-based collateralization method shall be used to ensure taking the risk mitigating effects of the reverse cash flows into account. When the margin requirement is calculated, no netting shall be made between the positions of different risk groups or currency pairs. The implementing principles for the collateralization method shall be explained in the procedure.

(3) Positions regarding the marketplaces/platforms and/or precious metals/contracts to which CCP service will not to be provided in accordance with the Board permission shall be monitored in an individual account of the member separately from the positions to which CCP service is provided, and the collateral amount received for settlement shall be calculated over the netted positions in such account. In the valuation of collateral received for settlement, the parameters and assets determined in relation to the marketplaces/platforms and/or precious metals/contracts to which CCP service is provided shall be used.

Assets eligible as collateral and guarantee fund contribution

ARTICLE 25 - (1) The following assets can be used by the Members for the fulfillment of their margin obligations. Takasbank Board of Directors is authorized to also accept other assets designated in article 19 of the Central Counterparty Regulation as collateral or guarantee fund contribution and revise the group limits and sub-group limits.

- a) Cash (Turkish Lira),
- b) Convertible currency (USD/EUR/GBP),
- c) Government debt securities,
- ç) Eurobond issued by the Ministry of Treasury and Finance of the Republic of Turkey,
- d) Lease certificates issued by Asset Leasing Incorporation of the Undersecretariat of Treasury of the Republic of Turkey,
- e) Shares in BIST100 index,
- f) Equity umbrella fund shares,
- g) Debt instruments umbrella fund shares,
- ğ) Standard gold traded on the exchanges,
- h) Mortgage-backed securities, mortgage-based securities, asset-backed securities and asset-based securities
- ı) Borsa Istanbul A.Ş. shares
- i) Electronic warehouse receipt
- j) Government debt securities issued by G7 countries

(2) Takasbank may not accept as collateral or guarantee fund contribution the securities and guarantees that it considers to be associated with the member due to the specific correlation relations which may exist between the creditworthiness of the member and the value of assets it has received as collateral or may restrict their acceptance as collateral and guarantee fund contribution. The collateral implementing principles regarding the assets considered to be associated with the creditworthiness of the member shall be stipulated by the Procedure.

(3) For the assets it has accepted as collateral or guarantee fund contribution, Takasbank may apply concentration limits in accordance with article 43 of the Central Counterparty Regulation for any single market or the sum of all markets to which it provides CCP service. The implementing principles of the concentration limits shall be stipulated by the Procedure.

(4) Theoretical pricing formulas and methods that can be used in the valuation of assets accepted as collateral and guarantee fund contribution by Takasbank shall be published on Takasbank web site.

Valuation haircuts

ARTICLE 26 - (1) In calculating the valuation haircuts representing the deduction rates and to be applied to the collateral and guarantee fund contributions, the parametric, non-parametric or simulation-based statistical methods deemed appropriate by Takasbank shall be used. The designated method shall be specified in the market procedure. In determining the collateral valuation haircuts, the relevant asset's credit risk rated by Takasbank, its maturity, its volatility under extraordinary market conditions, its liquidity, and its currency risk, if any, shall be taken into account. The values announced by CBRT may also be considered in determining the valuation haircuts.

(2) The statistical confidence level and the liquidation period to be used in the calculations to be made cannot be less than %99,5 and 2 business days respectively. The historical data to be used in the calculations must not be shorter than 12 months. The valuation haircuts for the assets for which there is insufficient data or no data at all shall be determined by taking the haircuts calculated for the assets with similar qualifications as reference.

Collateral composition limits

ARTICLE 27 - (1) For other assets to be accepted as collateral apart from cash Turkish Lira and the composition limits thereof, the rates given in the following table shall be applied. Takasbank Board of Directors is authorized to set composition limits for the new assets to be accepted as collateral or make revision in the composition limits including those determined in this Directive.

Assets Eligible as Collateral	Group Limit	Sub-group Limit (As group limit percentage)
Cash (Turkish lira)	En Fazla %100	-
Convertible Currency (USD/EUR/GBP)	En Fazla %100	-
Government Debt Securities	En Fazla %100	%35
Eurobond issued by the Ministry of Treasury and Finance of the Republic of Turkey	En Fazla %100	%35

Lease certificates issued by Asset Leasing Incorporation of the Undersecretariat of Treasury of the Republic of Turkey	En Fazla %100	%25
Shares in BIST100 Index	En Fazla %90	%20
Equity umbrella fund shares	En Fazla %50	%20
Debt instruments umbrella fund shares	En Fazla %50	%20
Standard gold traded on the exchanges	En Fazla %50	-
Mortgage-backed securities, mortgage-based securities, asset-backed securities and asset-based securities	En Fazla %50	%40
Borsa Istanbul A.Ş. Shares	En Fazla %50	-
Electronic Warehouse Receipt	En fazla %25	%20
Government debt securities issued by G7 countries	En Fazla %50	%50

(2) The valuation haircuts representing the deduction rates to be used in calculating the collateral values of the assets to be deposited as collateral shall be explained in the Procedure.

(3) Assets accepted as collateral shall be made subject to valuation over the prices determined by Takasbank to ensure their valuation at current market prices. The implementing principles for determining collateral values shall be explained in the Procedure.

Title to collateral

ARTICLE 28 - (1) The title to collateral received pursuant to the CCP service shall transfer to Takasbank in accordance with the second paragraph of article 78 of the Law. Takasbank shall acquire the ownership right upon establishment of the contract and by transfer of the assets subject to collateral in compliance with the legal procedures.

(2) In the event the receivables of Takasbank are required to be covered from collateral due to the default of the member or because of reasons stipulated in the provisions of the agreement or the relevant legislation, Takasbank shall be entitled to sell the asset subject to collateral on a best effort basis and over the best price and cover its receivables from the sale proceeds thereof or to offset the value of these instruments from the obligations of the debtor without being obliged to fulfill any precondition such as serving any notice or warning, allotting time, obtaining any permission or approval from the administrative or judicial authorities, turning the collateral into cash through auction or another way, etc.

(3) Since title to collateral belongs to Takasbank pursuant to article 78 of the Law, the rights arising from the collateral shall also belong to Takasbank. Takasbank shall return the collateral together with the rights thereon at the due date in accordance with the provisions of article 27 of the Central Counterparty Regulation and upon request of the Member, provided that the obligations have been fulfilled.

Collateral monitoring and management

ARTICLE 29 - (1) Collateral associated with the positions held in the risk groups are monitored separately in the accounts linked to the member. The member's collateral associated with its multiple customer

positions cannot be used for closing any collateral deficit arising from the accounts of the member's own portfolio nor for resolving any default. Collateral associated with the member portfolio can be used for covering any margin requirement arising from all position accounts linked to the member or for resolving any default. The provision of the third paragraph of article 78 of the Law shall be reserved.

(2) The member is obliged to close its clearing and settlement obligations until the end of the time periods set forth in the Procedure. Otherwise the Member shall be deemed defaulted without the need for serving any notice, its cash and precious metal receivables, if any, shall not be paid and the default provisions shall be applied to the Member.

(3) The Members can fulfill their margin call obligations by depositing collateral for the relevant position accounts. Transactions regarding collateral depositing, withdrawal, valuation, account update and fulfillment of obligations shall be performed on a position account basis.

(4) Pursuant to article 79 of the Law, Takasbank's rights and entitlement on the value of assets it has received as collateral by virtue of the operations it performs as central counterparty cannot be restricted in any manner. The member's lack of power of disposition, for any reason, on the assets subject to collateral shall not prevent Takasbank from a bona fide real right acquisition. Any title or limited real right claim of third parties on the value of assets subject to collateral cannot be raised against Takasbank.

(5) Devoting time for composition about the collateral provider, approval of its composition, devoting time for composition after bankruptcy, entering into composition process by abandoning its assets, restructuring by way of conciliation, its bankruptcy, postponement of its bankruptcy, or the relevant provisions of the Law regarding gradual liquidation or the proceeding procedures under the Execution and Bankruptcy Law No. 2004 can under no circumstances limit Takasbank's rights and entitlement on collateral.

Collateral deposit or withdrawal operations

ARTICLE 30 - (1) The principles and procedures on deposit, withdrawal and replacement of assets eligible as collateral and the time periods thereof shall be stipulated in the Procedure.

Interest accrual on cash collateral and guarantee fund contributions

ARTICLE 31 - (1) Cash Turkish Lira collateral and guarantee fund contributions deposited by the members are accrued interest over the amount remaining after deducting the portion to be set aside as compulsory reserve, with the best possible conditions by Takasbank in accordance with the principles stipulated in the Procedure by taking the credit risk and liquidity conditions into consideration. The accrual process is performed within the limits of Takasbank by way of depositing the amount subject to the interest to the banks as either deposit or depo and making it subject to a repo transaction. Takasbank can also place the cash collateral to the organized money markets for interest accrual purposes. Interest accrual may not be made in extraordinary market conditions. No interest shall be paid if the interest accrual is failed to be made by Takasbank due to the market conditions.

(2) The balance remaining after deducting the Bank and Insurance Transaction Tax (BITT) and other legal charges and the amount to be collected by Takasbank as "collateral monitoring and interest accrual fee" at a rate proposed by Takasbank and deemed appropriate by the Board from the gross interest amounts earned from accrual of interest on the amount of collateral and guarantee fund contributions remaining after setting aside the compulsory reserve obligation, if any, shall be credited to the relevant accounts as interest.

Interest Accrual on the foreign exchange settlement obligation providing being deposited beforehand

ARTICLE 32 - (1) Foreign exchange settlement obligation amount (USD/EUR) being deposited by the members in advance of the value date in order to fulfill the SWAP market obligations are invested after deducting the portion to be set aside as reserve requirement, with the best effort basis conditions by Takasbank in accordance with the principles stipulated in the Procedure by taking the credit risk and liquidity conditions into consideration. The investment process is performed within the limits of Takasbank by way of depositing the amount subject to the interest to the banks as either deposit or depo and making it subject to a repo transaction. Takasbank can also place the cash collateral to the organized money markets for investment purposes. Investment may not be made in extraordinary market conditions. No interest shall be paid if the investment process is failed to be made by Takasbank due to market conditions.

(2) The balance remaining after deducting the Bank and Insurance Transaction Tax (BITT) and other legal charges and the amount to be collected by Takasbank as “collateral monitoring and interest accrual fee” at a rate proposed by Takasbank and deemed appropriate by the Board from the gross interest amounts earned from accrual of interest on the foreign exchange amount being deposited beforehand remaining after setting aside the compulsory reserve obligation, if any, shall be credited to the relevant accounts as interest.

CHAPTER SEVEN

Principles Regarding the Guarantee Fund

Guarantee fund and its general principles

ARTICLE 33 - (1) As part of the CCP service it will provide in the Market, Takasbank establishes a guarantee fund created by the contribution amounts of the members as to be used for any loss that might be incurred in case of default of the members and exceed the collateral of the relevant members. Participation of the CCP members in the guarantee fund is mandatory.

(2) The guarantee fund contributions of the CCP members are composed of the guarantee fund contributions deposited and the additional guarantee fund contributions to be deposited if requested by Takasbank. Should the Guarantee Fund be used in accordance with the provisions of the CCP Regulation, the Directive and the Procedure, the CCP members may be asked to deposit additional contribution provided that it shall not exceed the deposited guarantee fund contribution amount. The members can be asked to deposit additional contribution at maximum four times in one-year period between 01 April and 31 March. The additional guarantee fund contribution that can be requested at once cannot exceed, for each member, the guarantee fund contribution amount calculated and required to be deposited for the month in which the defaults constituting the base of the request have occurred. The additional guarantee fund contribution amount can be requested either once as the entire balance of the deposited amount or at multiple times in tranches provided that it shall not exceed the aggregate of the deposited amount.

(3) For the CCP member that has requested the termination of its membership and has notified Takasbank in writing that the member has fulfilled all obligations under the Directive and other regulations but whose request has not yet been approved by the Board of Directors or whose request for termination of its membership has been approved by the Board of Directors but has been allotted time for the return of its deposited guarantee fund contribution, the maximum guarantee fund obligation for which it may be liable on and after the date on which the member submitted its request for the termination of its membership shall be either two-fold of such member’s the guarantee fund amount updated on the first business day of the

month in which the request was made in case of existence of no continuing default whose resolution still continues as of the request date, or shall otherwise be three-fold. If the member's request for termination of its membership is submitted without first fulfilling all its obligations under the Directive and other regulations, these rates shall be applied as three and four times. Institutions considered to have terminated or requested the termination of its CCP membership to avoid from any possible guarantee fund obligation may not be re-accepted to the CCP membership.

- (4) No recourse to the guarantee fund contributions of other Members can be made unless the trade margins of the defaulting Member, its guarantee fund contribution and the capital allocation made by Takasbank for the covered risks in the Market become inadequate.
- (5) In case of termination of the membership, the guarantee fund contribution shall be refunded in accordance with the provisions of article 33 of the Central Counterparty Regulation.
- (6) The assets in the guarantee fund cannot be used other than for their intended purpose.
- (7) Covering the contribution amounts to be deposited to the guarantee fund by the members out of the assets in their possession is essential.
- (8) The guarantee fund is represented and administered by Takasbank.
- (9) The positions of the marketplaces/platforms and/or precious metals to which CCP service cannot be provided pursuant to the permission of the Board shall not be taken into account in the guarantee fund calculations.

Size of the guarantee fund and the contribution amount to be deposited by the members

ARTICLE 34 - (1) The size of the guarantee fund cannot be less than the greater of the funding need that would arise in case of joint default of the member with the highest open position and the members with the second and third highest open positions under the stress conditions. The funding need comprises of the portion of the members' risks calculated under the stress conditions and remaining out of the amount that can be covered by their trade margins. In estimating the risk under stress conditions through statistical methods, the statistical confidence level, the holding period and historical data stipulated in the Procedure shall be used as to be not less than 99.5%, 2 business days and 5 years respectively. Takasbank may set the minimum guarantee fund obligation as to be greater than the obligation calculated statistically by considering the market conditions, the margin concentrations and the adequacy of collateral management resources.

- (2) Calculation of the total size of the guarantee fund is renewed provided that it shall not be longer than 3 months, and the sufficiency of the existing guarantee fund is tested.
- (3) The contribution to be made by the members to the guarantee fund is composed of the fixed and the variable contributions calculated pro rata to the risks they carry.
- (4) The fixed contribution amount is determined at a level not to exceed the average amount found by dividing the required size of the guarantee fund to the number of members and announced in the Procedure.
- (5) The variable contribution amount is calculated by Takasbank by taking account of the average collateral amount that the member must maintain in the market and announced through the member screens.
- (6) The deposited guarantee fund contribution of a member cannot be less than the fixed contribution amount.
- (7) The length of data set to be used in calculating the size of the guarantee fund to be established and

determining the average collateral amount constituting the basis for the members' variable contribution amounts is explained in the Procedure. In finding the aggregate guarantee fund contribution required to be deposited by each member, the guarantee fund risk value calculated by multiplying the average collateral amount of the members by a risk haircut to be determined shall be used.

(8) Guarantee fund contribution obligations are calculated at the last business day of each month and updated at the first business day of the following month. The appreciated collateral amount corresponding to the guarantee fund contribution amount reflected to the accounts by Takasbank must be deposited to the accounts until the time period set forth in the Procedure. The default provisions shall be applied for the amounts failed to be deposited.

(9) The members' guarantee fund contribution calculations can be made by Takasbank without waiting for the last business day of the month, by taking account of the risk status of the relevant members and the market conditions.

Assets eligible as contribution to the guarantee fund and the obligation to restore contribution amount

ARTICLE 35 - (1) Assets eligible as contribution to the guarantee fund and the composition limits thereof are given in the following table. Takasbank Board of Directors is authorized to revise the composition limits of the assets to be accepted as guarantee fund contribution according to the market conditions and set composition limits for the new assets.

Assets Eligible to Guarantee Fund	Group Limit	Sub-group Limit (As group limit percentage)
Cash (Turkish lira)	En Fazla %100	-
Convertible Currency (USD/EUR/GBP)	En Fazla %100	-
Government Debt Securities	En Fazla %100	%35
Eurobond issued by the Ministry of Treasury and Finance of the Republic of Turkey	En Fazla %100	%35
Lease certificates issued by Asset Leasing Incorporation of the Undersecretariat of Treasury of the Republic of Turkey	En Fazla %100	%25
Shares in BIST100 Index	En Fazla %90	%20
Equity umbrella fund shares	En Fazla %50	%20
Debt instruments umbrella fund shares	En Fazla %50	%20
Standard gold traded on the exchanges	En Fazla %50	-
Mortgage-backed securities, mortgage-based securities, asset-backed securities and asset-based securities	En Fazla %50	%40
Borsa Istanbul A.Ş. Shares	En Fazla %50	-
Electronic Warehouse Receipt	En fazla %25	%20
Government debt securities issued by G7 countries	En Fazla %50	%50

- (2) The valuation haircuts representing the deduction rates to be used in calculating the collateral values of the assets to be deposited as guarantee fund contribution are explained in the Procedure.
- (3) Non-cash assets used as guarantee fund contribution are made subject to valuation at the end of the day over the prices determined by Takasbank to ensure their valuation at current market prices.
- (4) A call to restore contribution amount shall be issued to the accounts having a contribution deficit as a result of the end-of-day valuation. The contribution amounts must be restored until the end of the time period designated in the Procedure. The default provisions shall be applied for the amounts failed to be restored.
- (5) Non-cash assets in the Guarantee Fund can be replaced in accordance with the request of the Member.

Principles for use of the guarantee fund

ARTICLE 36 - (1) In default management, the non-defaulting members' non-cash contributions in the guarantee fund shall be started to be turned into cash when the funds available for use up to the item (d) of the first paragraph of article 36 of Takasbank Central Counterparty Regulation fail to be adequate and upon determination that the guarantee fund contributions deposited in cash will remain insufficient.

(2) The contribution amounts deposited to the guarantee fund by the members joined to the guarantee fund after the date on which the relevant default has occurred 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 cases which necessitate resorting to the guarantee fund, withdrawal of any contribution from the guarantee fund shall not be allowed during the time period to be elapsed until the loss incurred due to such default is fully covered.

(4) Resorting to the contribution amounts starts with the most liquid assets and their ability to quickly be turned into cash shall be taken as the base, provided that the provisions of article 36 of the Central Counterparty Regulation are observed and the order given in the relevant article is respected. The cash amounts turned into cash from non-cash collateral in the guarantee fund but not used shall be returned pro-rata to the members whose non-cash collateral have been used.

(5) In distributing the loss to be attributed to the guarantee fund to the non-defaulting members, the shares of the members in the guarantee fund shall be taken as the base.

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

(7) If the loss to be attributed to the guarantee fund seems likely to exceed 50% of the fund size, the members may be asked to deposit the additional contributions they have committed. The members are obliged to deposit the additional contributions within 5 business days after the request. The additional contributions that have not been used either in part or at all for resolving the relevant default shall be returned. If they, albeit requested, are returned without being used for resolving the default, the request for additional guarantee fund contribution shall be deemed not to have been made.

(8) The additional guarantee fund contribution amount that can be requested from a member in one month's time period cannot exceed the member's guarantee fund contribution amount calculated and required to be deposited for that month.

(9) If the additional guarantee fund contributions requested from the members due to the default are used either in part or in whole, the members shall be asked to restore their guarantee fund obligations to the amount being calculated pursuant to article 30. The guarantee fund contributions exceeding the

maximum loss threshold that any Member would assume in the same month upon the default of other members shall only be used in the event of their own default until the end of the month. The standard guarantee fund contribution amounts to be requested from the members who have fulfilled their maximum additional guarantee fund contribution obligation within the one year period between the dates of 1 April-31 March shall only be used for their own default until such one year period is completed.

CHAPTER EIGHT

Principles Regarding the Default Procedures for CCP Service-Provided Assets

General principles

ARTICLE 37 - (1) Debts arising from the transactions conducted in the Market shall become due and payable in the following situations.

- a) When the value or maturity date of the debt becomes due.
- b) Failure to fulfill the intra-day and end-of-day margin call obligations calculated by Takasbank within the time period prescribed in the Procedure.
- c) Failure to fulfill the guarantee fund and additional guarantee fund contribution restoration obligations within their time periods.
- ç) Failure to fulfill the variation margin obligation within its time period.
- d) Decision by Takasbank for the liquidation of the member's obligations pursuant to article 9 of the Directive.

(2) In case of failing to fulfill the obligations in accordance with the principles and procedures stipulated in the Procedure at the date on which the debt becomes due and payable, the Member shall fall into default without serving any further notice. If the member falls into default due to any debt of the member which became due and payable, all debts of the member shall become due and payable.

(3) In the event of default, the Member shall not be allowed to withdraw its collateral in its relevant accounts. By taking the size of default into consideration, Takasbank may restrain order transmission by the Member over its accounts.

(4) The Member can be allotted time by Takasbank to resolve its event of default until the business day following the default date at most to the hour set forth in the Procedure. In case of failing to resolve the event of default until the end of the allotted time period, Takasbank may trade in the organized and over-the-counter markets. To be able to execute the transaction, the trade margin and guarantee fund contribution amounts of the member can be used.

(5) The default provisions shall be applied in the event the collateral and guarantee fund obligations are failed to be fulfilled within the time periods set forth in the Procedure.

Cash and variation margin default

ARTICLE 38 - (1) Without prejudice to the thresholds set forth in article 36 of the Central Counterparty Regulation and paragraphs 4 and 5 of this article and the market liquidity constraints, the financial liability of Takasbank for the defaults occurred in the market shall be limited to the payment of debt on the settlement date; and should the debt be failed to be paid on the settlement date, to the payment in accordance with the following principles and procedures depending on the market conditions and Takasbank's liquidity facilities, and further to that, to the mistreatment payment to be calculated till the date on which the payment will be made.

- (2) If the debt is fully paid within the time periods set forth in the procedure, the payment shall be made to the settlement beneficiary during the same day.
- (3) In the case of the cash default occurred on the value date of the transaction, if the event of default is failed to be resolved until the end of the time period granted by the Default Management Committee, Takasbank shall try to raise funds by using the member's blocked receivables and the default management resources until the end of the following business day, on a best effort basis, to the payee from the organized and/or over the-counter markets to facilitate payment of its receivable amount. Should the foreign currency subject to the default be failed to be raised from the market, its equivalent in TL shall be paid. In determining its TL equivalent, the Central Bank buying rate on the business day following the default shall be used and the relevant amount shall be paid in the next business day.
- (4) In the Market, the liability of Takasbank arising from the default against the foreign currency-recipient party on the start date of the transaction shall be limited to the sum of the foreign currency obtained through TL/precious metal amount subject to the transaction and the pre-trade risk premium amount received for such transaction and the guarantee fund of the default member.
- (5) In the Market, the liability of Takasbank arising from the default against the Turkish Lira recipient party on the start date of the transaction shall be limited to the sum of TL obtained through the foreign currency/precious metal amount subject to the transaction and the pre-trade risk premium amount received for such transaction and the guarantee fund of the default member.
- (6) In case of any default, the default interest shall be charged pursuant to the provisions of article 38. A compensation payment shall be made, for the portion failed to be delivered, to the obligee member for the period to be elapsed until its receivable is fully credited, up to $\frac{3}{4}$ of the collected default interest amount.
- (7) If the calculated interest amount remains below the minimum default penalty, the payment shall be made over the calculated amount.
- (8) The obligor member shall be obliged to pay such debt together with its default interest to be calculated in accordance with article 38.
- (9) In case of the default of variation margin, the member's collateral and guarantee fund contribution amounts shall be used. For the missing part, an intra-day margin call shall be made.
- (10) Other issues related to the default shall be stipulated by the Procedure.

Precious metal default

ARTICLE 38/A- (1) Without prejudice to the thresholds set forth in article 36 of the Central Counterparty Regulation and paragraphs 4 and 5 of this article and the market liquidity constraints, the financial liability of Takasbank for the defaults occurred in the market shall be limited to the payment of debt on the settlement date; and should the debt be failed to be paid on the settlement date, to the payment in accordance with the following principles and procedures depending on the market conditions and Takasbank's liquidity facilities, and further to that, to the mistreatment payment to be calculated till the date on which the payment will be made.

- (2) If the debt is fully paid within the time periods set forth in the procedure, the payment shall be made to the settlement beneficiary during the same day.
- (3) The precious metal default occurred on the value date of the transaction, if the event of default is failed to be resolved until the end of the time period granted by the Default Management Committee, Takasbank shall try to raise precious metal by using the member's blocked receivables and the default management resources until the end of the following business day, on a best effort basis, to the payee from

the organized and/or over the-counter markets to facilitate payment of its receivable amount. Should the precious metal subject to the default be failed to be raised from the market, its equivalent in TL shall be paid. In determining its TL equivalent, the Central Bank buying rate on the business day following the default or the price of the precious metal used in the calculation of the end of day variation margin shall be used. The relevant amount shall be paid in the next business day.

(4) In the Market, the liability of Takasbank arising from the default against the precious metal recipient party on the start date of the transaction shall be limited to the sum of the foreign currency obtained through TL/foreign currency amount subject to the transaction and the pre-trade risk premium amount received for such transaction and the guarantee fund of the default member.

(5) In case of any default, the default interest shall be charged pursuant to the provisions of article 38. A compensation payment shall be made, for the portion failed to be delivered, to the obligee member for the period to be elapsed until its receivable is fully credited, up to $\frac{3}{4}$ of the collected default interest amount.

(6) If the calculated interest amount remains below the minimum default penalty, the payment shall be made over the calculated amount.

(7) The obligor member shall be obliged to pay such debt together with its default interest to be calculated in accordance with article 42.

(8) Other issues related to the default shall be stipulated by the Procedure.

Default interest

ARTICLE 39 - (1) Default interest shall be collected together with its legal obligations from the member who have fulfilled its settlement, variation margin, initial margin and guarantee fund obligations after the designated time.

(2) In calculating the default interest, the period between the default date and the date on which the obligation is fulfilled shall be taken into account. However; the default interest haircut can be differentiated for the obligations being fulfilled after the designated cut-off time on the settlement date but in the same day.

(3) The defaulting member shall be charged a default interest up to the amount to be calculated over the non-fulfilled obligation amount based on the haircuts set forth in the Procedure by applying the higher of the weighted average overnight interest rates formed in BIAS Repo Reverse-Repo Market, CBRT Interbank Money Market or Takasbank Money Market.

(4) A lower limit shall be applied to the default interests to be collected. The minimum default interest shall be determined in the Procedure.

(5) The upper limit shall not be applied for the obligations failed to be fulfilled within the same day.

(6) Amounts of the minimum and maximum default interest shall be determined by taking account of the revaluation rate published by the Ministry of Finance each year and announced to the members before enforcement.

(7) If Takasbank has incurred any loss exceeding the default interest due to non-payment of the debt in whole or in part, such loss shall be indemnified by the defaulting Member.

(8) If the default liability is in foreign currency, it is calculated on the basis of the foreign currency buying rate announced by the CBRT on the relevant value date, and in terms of precious metal, the precious metal price used in the valuation of the end of day variation margin collateral. On the other hand, in case it is defaulted in any foreign currency denominated obligation, Takasbank may also decide to calculate

the default interest over the haircuts it may determine separately for each foreign currency.

Accrual, notification and collection

ARTICLE 40 - (1) The accrued default interest shall be paid together with other legal liabilities within 1 business day following the accrual date.

(2) A notification shall be served to the member for the default interest being accrued. Upon delivery of the notification in the electronic environment, the member shall be deemed to have received it without the need for any further warning or notice.

(3) The default interest and other legal liabilities failed to be paid, albeit accrued, by the member within their time period shall be collected ex-officio by Takasbank from the free account of the member in the next business day. If they are failed to be collected, interest and other legal liabilities shall also be collected in accordance with the provisions of article 41 related to the default management process.

Objecting to default interest accruals

ARTICLE 41 - (1) The default interest-accrued members may object at Takasbank based on the reasons that the default has occurred without its own fault due to problems arisen from the clearing and settlement, relevant central depository system or payment system or a material mistake has been made in the calculation of the default interest. The objection shall not inhibit the payment of default interest

(2) The objection must be made at the latest within 1 week after the default interest accrual date with a letter accompanied by the documents related to the objection.

(3) The defaulting member's objection shall be evaluated and resolved by the Default Committee Established within the structure of Takasbank in accordance with article 35 of the Regulation.

(4) If the objection made by the member is justified, the default interest shall not be applied, and if it has been collected, the relevant amount shall be refunded to the member.

(5) If the objection is declined, the decision shall be informed to the relevant member in writing with its justification.

Default management process

ARTICLE 42 - (1) The relevant default of the Member failing to close its settlement and/or collateral obligations on time and whose settlement debt has been failed to be closed as a result of the transactions conducted in the Market by Takasbank within the time periods set forth in the Directive shall be informed to the Exchange, the Board and the relevant member pursuant to article 13 of the CCP Regulation, and all trading authorization of the member on its accounts shall be suspended.

(2) Takasbank may take one or more than one of the following measures, including but not limited to those, about the defaulting member in accordance with the relevant articles of the Central Counterparty Regulation. In using the default management tools, the reason of default and its impact on the markets shall be taken into account.

- a) Migrating the open positions in the non-defaulting member accounts to a non-defaulting member either in whole or in part together with their collateral pursuant to article 26 of the Central Counterparty Regulation.
- b) Using the excess trade margin of the member in other markets.
- c) Using the guarantee fund contributions of the member in other markets to the extent it has

no risk in the relevant Market.

- ç) Acting in accordance with article 45 of this Directive to make use of the guarantee fund contributions of the non-defaulting members.
- d) Migrating the positions and collateral of the customers either ex officio when necessary or upon request of the customers to other members without seeking the consent of the defaulting member.
- e) Closing the positions in an ex-officio manner.
- f) Netting any debt, receivable, position, collateral, right and obligations existing with the same party.

(3) Any deficit occurred after the enforcement by Takasbank against the defaulting member of the default provisions stipulated in this Directive and the provisions of Chapter Five of the Central Counterparty Regulation and failed to be covered by the collateral and guarantee fund contributions of the defaulting member shall be defined as the loss of Takasbank and other Members and assumed in order as laid down in the first paragraph of article 36 of the Central Counterparty Regulation. Collections to be made later from the defaulting member shall be distributed pursuant to the fifth paragraph of article 36 of the Central Counterparty Regulation.

(4) Should the capital allocated in accordance with article 36 of the Central Counterparty Regulation against the covered risks be used due to the default, 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, the remaining portion of the allocated capital, if any, shall be used. The guarantee fund of the non-defaulting members shall be resorted for the portion which cannot be covered. Restoration of the capital shall not necessitate the return of the guarantee fund contributions being used.

CHAPTER NINE

Final Provisions

Fees and commissions

ARTICLE 43 - (1) For the fees and commissions to be charged by Takasbank to its Members in relation to the services it provides under this Directive, the provisions of article 35 of the General Regulation shall apply.

(2) CBRT is exempt from the commission and feed to be collected.

Exemptions and exceptions

ARTICLE 44 - (1) Pursuant to the first paragraph of article 52 of the Central Counterparty Regulation, the Central Bank of the Republic of Turkey is the natural CCP member and it is not subject to the provisions of this Directive nor to the provisions of the Procedure to be issued in accordance with this Directive.

(2) The rules related to the functioning of the transactions to be conducted by CBRT in the Market shall be determined by a separate Protocol to be signed between Takasbank and CBRT.

(3) CBRT is not obliged to pay any default interest to the extent it fulfills its obligations for the transactions it has conducted in the Market within the same day.

(4) Transactions in Takasbank system can also be executed by Takasbank on behalf of CBRT.

Disciplinary provisions

ARTICLE 45 - (1) In addition to those contemplated in this Directive, the disciplinary provisions stipulated in the Chapter Seven of the Central Clearing and Settlement Regulation shall also be applied to the members failing to comply with the obligations stipulated in this Directive.

Measures to be taken in extraordinary situations

ARTICLE 46 - (1) Takasbank is authorized to determine and enforce the measures to be taken in case of presence of extraordinary situations where it foresees the clearing and settlement operations of the Market may be adversely affected. In such cases, Takasbank is entitled to take the measures referred to in article 48 of the Central Counterparty Regulation.

Provisions to be applied in case of no provision in the Directive

ARTICLE 47 - (1) In case of no provision in the Directive, the provisions of the Central Counterparty Regulation and the Central Clearing and Settlement Regulation shall be applied.

Temporary Provision

ARTICLE 48 – (1) Borsa İstanbul A.Ş. shares are considered as collateral while the buy-back guarantee of Borsa İstanbul remains.

Enforcement

ARTICLE 49 - (1) The Directive shall enter into force on the date of its publication.

Execution

ARTICLE 50 - (1) The provisions of the Directive shall be executed by the Board of Directors.