

**PROCEDURE ON CENTRAL CLEARING AND SETTLEMENT SERVICE TO BE
PROVIDED BY ISTANBUL TAKAS VE SAKLAMA BANKASI A.Ş. IN BORSA ISTANBUL
INC. PRECIOUS METALS MARKET AND THE PRINCIPLES REGARDING THIS
SERVICE**

CHAPTER ONE

General Provisions

Purpose

ARTICLE 1 - (1) The purpose of this Procedure is to regulate the principles regarding the clearing and settlement and collateral management services to be provided by Takasbank as the central clearing and settlement institution in Borsa Istanbul Precious Metals Market.

Scope

ARTICLE 2 - (1) This Procedure covers the matters regarding membership, clearing and settlement, collateral, default, earnings and other issues related to the clearing and settlement and collateral management services to be provided by Takasbank as the central clearing and settlement institution in Borsa Istanbul Precious Metals Market.

Basis

ARTICLE 3 – (1) This Procedure articles 77 of the Capital Markets Law no. 6362 the General Regulation on the Establishment and Operating Principles of the Central Clearing, Takasbank Central Clearing and Settlement Regulation published in the Official, and the Directive on Central Clearing and Settlement Service to be Provided by Takasbank in Borsa Istanbul Inc. Precious Metals Market and the Principles Regarding

Definitions and abbreviations

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

- a) **Intermediary bank:** The bank to which the members request their market receivables and withdrawable cash collateral amounts to be automatically transferred.
- b) **BIC (Bank Identifier Code):** The bank identifier codes.
- c) **Exchange:** Borsa Istanbul Inc.
- d) **EFT:** The Electronic Fund Transfer System facilitating transfer of payment in Turkish Lira.
- e) **EUR:** The currency of European Union
- f) **General Manager:** The General Manager of Takasbank
- g) **GBP:** The currency of the United Kingdom
- h) **Trade Margin:** Collateral deposited to the custody accounts opened at Takasbank.
- i) **Precious Metal:** All precious metals traded in the Exchanges.
- j) **Central Clearing and Settlement Regulation:** Takasbank Central Clearing and Settlement Regulation published in the Official Gazette dated 18.7.2013 and numbered 28711.
- k) **Market:** Borsa Istanbul Inc. Precious Metals Market.

- l) **Position:** The settlement debts and receivables arising in relation to the transactions conducted in the Market.
- m) **Procedure:** This Procedure covering the implementing principles approved by the General Manager and comprising the procedures related to the operation and practices in accordance with the rules and principles stipulated in the Directive.
- n) **Free Account:** The members' TL (11) and foreign currency YP (11) free current accounts at Takasbank.
- o) **System:** Takasbank system in which the clearing and settlement, risk and collateral management of the transactions conducted in the Market is carried out.
- p) **Maintenance Level:** A certain rate of the collateral value determined by Takasbank and required to be maintained at the end of each day.
- q) **SWIFT** (Society for Worldwide Interbank Financial Telecommunication): The international financial telecommunication network and messaging infrastructure.
- r) **Clearing and settlement:** All of the processes that enable the cash and/or assets to be transferred between the parties by fulfillment by the Members of the obligations arising in relation to the transactions conducted in the Market, within the time period and on the conditions set by Takasbank.
- s) **Takasbank:** İstanbul Takas ve Saklama Bankası A.Ş.
- t) **Registration:** Registration of precious metals imported or produced from ore by being traded and registered for the first time in Precious Metals Market.
- u) **Registered:** Precious metals registered in accordance with the procedures and principles set forth in the Borsa İstanbul Precious Metals And Diamond Market Procedure.
- v) **Unregistered:** Precious metals that are not registered, imported or produced from ore.
- w)
- x) **CBRT:** The Central Bank of the Republic of Turkey.
- y) **USD:** The currency of United States of America.
- z) **Member:** Those among the institutions authorized by the Exchange to trade in the Market, which have fulfilled Takasbank membership conditions under this Procedure.
- aa) **Directive:** The Directive on Central Clearing and Settlement Service to be Provided by Takasbank in Borsa İstanbul Inc. Precious Metals Market and the Principles Regarding This Service approved by the Board of Directors.
- bb) **Regulation :** Takasbank Central Clearing and Settlement Regulation
- cc) **Board of Directors:** The Board of Directors of Takasbank.

CHAPTER TWO

Principles for Membership

Conditions for membership

ARTICLE 5 - (1) The following membership conditions must have been met to receive the clearing and settlement, risk and collateral management services for the Market.

- a) There must be trading authorization in the Market,

- b) The Market membership agreement and the pre-agreement information form whose contents are determined by Takasbank must have been signed and submitted,
- c) The technical infrastructure determined and announced to the members by Takasbank must have been established and the necessary measures to ensure its operability must have been taken in order to perform their transactions at Takasbank,
- d) The accounts designated by Takasbank must have been opened,
- e) The membership admission fee must have been deposited.
- f) The membership collateral must have been deposited.

(2) TCMB takes place in the system as a special-status participant. The CBRT is a natural Central Clearing and Settlement Institution member and it is not subject to the provisions of this Procedure.

Membership application and its acceptance

ARTICLE 6 - (1) The institutions to apply for membership are required to apply to Takasbank and submit the information and documents specified in the Procedure and article 10 of Takasbank Central Clearing and Settlement Regulation.

(2) The filed applications this procedure shall be reviewed by Takasbank in terms of whether the conditions prescribed in 5th article have been met or not. In order to commence its operations at Takasbank, the institution whose membership application is accepted must, following the notification that its membership application has been found eligible, deposit the membership admission fee and the membership collateral and authorize the personnel who will trade on behalf of the member in Takasbank system.

Obligations of members

ARTICLE 7 - (1) The Market members are obliged to comply with the following issues to be able to get authorization to perform the transactions of themselves and/or of their customers as a direct clearing and settlement member:

- a) Act in accordance with all rules and principles stipulated by this Procedure and other relevant legislation for the service being provided.
- b) Behave in accordance with the principles of honesty and good faith towards their customers and other members.
- c) Adhere to the system and physical delivery time periods determined by Takasbank and Exchange.
- d) Fulfil the fees, commissions and other obligations required by Takasbank in due time.
- e) Furnish all types of information and documents that may be requested on issues deemed necessary by Takasbank in relation 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 Takasbank officers.
- f) Adapt the system revisions to be made by Takasbank within the prescribed time periods and participate in the tests.
- g) Fulfill their other obligations under the Procedure in due time and in a complete manner.

(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 Exchange 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 measures stipulated in the Procedure.

(3) The members are responsible for the fulfillment of all obligations relating to the transactions they have conducted in accordance with the activities stipulated under the Procedure and for any function performed by their employees pursuant to their duties.

(4) The members conduct their transactions via remote access by using the user codes and passwords allocated to the personnel they have authorized. The responsibility arising from the transactions conducted in the system by using the allocated password and from the use of the password by unauthorized people shall belong to the member.

(5) In cases when access to the system is not possible, the transactions may be executed by Takasbank in accordance with the written instructions to be given by people holding authority to represent the member.

(6) The members are responsible for following the Market-related announcements and messages from the settlement system and other communication means.

Restricting Market trading activities of the members

ARTICLE 8 - (1) The activities of the members under this Procedure may be restricted by Takasbank in the following situations.

a) Restriction or temporary suspension of its Market activities to which clearing and settlement service is provided pursuant to article 13 of the Central Clearing and Settlement 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., temporary or permanent suspension of its activities, cancellation of its relevant operating permit, prohibition to conduct any transaction for the assets traded in the Market for any reason, or decision rendered on its gradual liquidation or bankruptcy.

(2) 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.

(3) If the member's activities are restricted for reasons referred to in this article, the situation shall be immediately notified to the Exchange.

Suspending the member activities and removing from membership

ARTICLE 9 - (1) If it is determined that the member has lost the membership conditions set forth in article 5, Takasbank shall be entitled to ask the fulfilment of such obligations within an appropriate time period to be allotted provided that it shall not exceed 3 months.

(2) In case of occurrence of risks of a significant nature which would jeopardize the secure and uninterrupted functioning of the clearing and settlement system as a result of the loss of the membership conditions or the non-fulfillment of obligations, Takasbank shall be entitled to either temporarily suspend

the activities of the member entirely or on a transaction basis without designating any time or remove the member from the membership. This state of affair shall be informed to the Exchange via the fastest means of communication.

(3) If the trading authorization of the member is revoked by the Exchange, the member shall be removed from the clearing and settlement membership by Takasbank.

(4) The members' obligations arising from the transactions within the scope of the Procedure, of whose activities are suspended, who are removed from the membership or wish to depart from the membership upon their own written request, shall prevail.

(5) Takasbank shall be entitled to take all types of measures it deems necessary, including the following, to ensure completion of the clearing and settlement transactions of the institution whose activities are suspended or who is removed from the membership.

- a) Restraining the member from trading directly on its accounts at Takasbank.
- b) Using the settlement receivables of the member to cover its settlement debts.
- c) Resorting to the collateral of the member.
- d) Resorting to the member's assets held in its free accounts at Takasbank.

Departing from the membership

ARTICLE 10 - (1) The institution wishing to depart from the membership shall simultaneously inform Takasbank and the Exchange of this situation in writing. Along with the obligations of the relevant member within the scope of the Regulation;

- a) copies of the documents received from the Exchange and substantiating the termination of its Market membership must have been delivered to Takasbank,
- b) all transactions it has conducted in the Market must have been fully liquidated,
- c) it must not have any liability against Takasbank.

Returning the membership collateral

ARTICLE 11 - (1) The membership collateral of the institutions whose trading authorization in the Market has been cancelled or who wish to depart from the membership upon their own request shall be returned after submission by the member of its written instruction to Takasbank provided that all of its liabilities to Takasbank have been paid off.

CHAPTER THREE

Account Operations

Account structure

ARTICLE 12 - (1) All members intending to trade in the Market are obliged to open at Takasbank the cash and securities accounts necessary for execution of the clearing and settlement operations.

(2) Trading, position and collateral accounts shall be opened at Takasbank to be able to monitor the trades, positions and collateral. Trading Account is the account where the orders matched in the Market are monitored on a transaction basis. The position accounts include the net amounts and net quantities calculated upon netting of the transactions. The risk management is performed over the position accounts.

Account types

ARTICLE 13 - (1) Position and collateral accounts are opened on a portfolio basis. Net settlement positions are monitored in a separate account from the gross settlement positions.

(2) Portfolio, fund and segregated single trading accounts are associated with the portfolio position account of the member.

(3) Portfolio position account is associated with the portfolio collateral account of the member. The members can trade on behalf of the portfolio, fund and segregated single customer with collateral they have deposited to the portfolio collateral account.

(4) Net portfolio positions and gross portfolio position accounts are associated with a separate portfolio collateral account.

Notification and definition of the intermediary banks and changing the account priority

ARTICLE 14 - (1) In order for the members to automatically transfer their market receivables arising from the transactions they have conducted in the Market and their withdrawable cash collateral amounts to their accounts opened in their own name at a bank resident in Turkey via EFT/SWIFT; the necessary definitions shall be made by Takasbank in the system upon their notification to Takasbank of minimum one and maximum five Intermediary Bank IBAN number(s) in each currency through the “Intermediary Bank Notification Form” attached as Appendix 1 herein.

(2) In the instruction conveyed by the members, they must designate minimum one primary account for different currency types. The members can change the priorities notified to Takasbank and defined to the system.

(3) If there is any request by the members for transfer of their market receivables to the intermediary bank account;

(a) If EFT/SWIFT transfers for the early settlement receivables are equal to or above the minimum amount, executed by the system as of 16:00. The members can approve or cancel the EFT/SWIFT messages, without minimum amount control, created for their early settlement receivables through Takasbank screens before 16:00.

(b) If EFT/SWIFT transfers of the end-of-day settlement receivables are equal to or above the minimum amount, performed by the system the last hours of sending orders to the intermediary bank designated in article 19 of this Procedure. The members can approve or cancel the EFT/SWIFT messages created for their end-of-day settlement receivables through Takasbank screens until the system deadline, without minimum amount control.

(4) Although there is any request by the members for transfer of their market receivables to the intermediary bank account but they have failed to make any account notification to Takasbank thereof, EFT/SWIFT messages shall not be created and their market receivables shall remain in their free accounts.

The amount remaining in the free account can only be processed by way of “collateral deposit and withdrawal” to the extent that an intermediary bank definition is made.

(5) After the closing of the exchange session and following the creation of the debt/receivables information to Takasbank system upon execution of the member-based on the basis of the currency and precious metal type, no change can be made in the intermediary bank account to which the market receivables are to be transferred. Takasbank shall be entitled to change this time upon request of the member or in extraordinary situations.

Accounts to be used for fulfilment of the obligations

ARTICLE 15 - (1) Obligations related to the transactions conducted in the Market shall be fulfilled on the settlement date by using the relevant cash and precious metal settlement accounts.

(2) For the cash settlement operations, the following accounts shall be opened at Takasbank in the name of the member:

(a) For the net settlement, the KMP Member Net Settlement Debt Account “KMPS” in TL and “KMPSX” in USD and EUR; and

(b) For the gross settlement, the KMP Member Gross Settlement Debt Account “KMTB” in TL and “KMTBX” in USD and EUR.

(c) Regarding the cash receivables, “11-TL Account” for TL, “11YP-10101 Account” for USD and “11YP-10120 Account” for EUR.

(3) These accounts shall be opened in Takasbank system upon completion of the membership procedures.

(4) For the foreign currency operations, Citibank shall be used as correspondent bank. The account information is as follows:

	<u>BIC Code*</u>	<u>Account No</u>
CITI New York-USD	CITIUS33	36892258
CITI Frankfurt-EUR	CITIDEFF	4115556024

(*) Takasbank BIC Code : TVSBTRISXXX

(5) For the precious metal settlement operations, “Takasbank Settlement Pool Account” shall be opened at the Exchange.

CHAPTER FOUR

Clearing and Settlement Principles

Takasbank’s responsibility

ARTICLE 16 - (1) Takasbank shall not be responsible for the members' obligations against the Exchange and other members other than those it undertakes through this Procedure in relation to the clearing and settlement, risk and collateral service.

General principles for clearing and settlement

ARTICLE 17 - (1) The clearing and settlement operations are performed over Takasbank system.

(2) The members conduct their transactions by accessing Takasbank system through the infrastructure provided by Takasbank. The features of the system messaging to be established between the members and Takasbank and the contents of message shall be determined and announced to the members by Takasbank.

(3) The rights and obligations of the members arising from their transactions subject to the clearing and settlement are concluded on account over the designated accounts by Takasbank.

(4) Closing the settlement debts by the members is essential. However, the debts may also be collected ex-officio from the member's relevant account

(5) No Takasbank guarantee exists for the completion of transactions on the settlement date and within its time period. Completion of clearing and settlement operations in due time is conditional upon the fulfillment by the obligor members of their obligations on time.

(6) In all business and transactions to be conducted in accordance with this Procedure, Takasbank shall only deal with the relevant member irrespective of whether the transactions belong to the customers of the members or not.

(7) In the clearing and settlement operations, the delivery versus payment principle shall be applied. The settlement receivables of the members failing to fulfill their settlement obligations shall not be paid.

Market settlement transactions

ARTICLE 18 - (1) The member-based settlement positions are generated when the trading transactions conducted by the members in the Exchange are matched.

(2) The settlement positions can be monitored instantly by the members via the Settlement Terminals.

(3) The settlement instructions are created as of 16:00 on the settlement date against each precious metal as per the settlement positions in a manner to also include the receivable/debt information on currency basis. The created settlement instructions can be monitored by the members as of 16:00. The obligations of the members are on the basis of settlement instructions being created.

(4) The rights and obligations of the members arising from their transactions subject to settlement are concluded on account by using the relevant cash or precious metal accounts designated by Takasbank. Obligations are fulfilled by the members having any precious metal debt by using precious metal settlement accounts at the Exchange and by the members having any cash debt by using the cash settlement accounts at Takasbank.

(5) Settlement is concluded in time intervals set by Takasbank collectively in a manner to make settlement of the highest number of entries. It is also possible to fulfill the settlement obligations in a partial manner, and partial settlement can be made in the time periods designated by Takasbank against the partially

fulfilled obligations. Distribution of settlement receivables is performed by taking the status of settlement pool balances during the distribution and the remaining obligations of the members into consideration.

6) Settlement of the transactions conducted by the members in which they perform a buy transaction for a precious metal in a particular type or standard by way of selecting a counterparty is executed via gross settlement.

(a) Gross settlement positions are created on the basis of the counterparty, currency and precious metal.

(b) Gross settlement positions are not netted-off against the net settlement positions of the member, but they are rather monitored separately. The member's gross positions are not subject to the netting. Settlement of the gross settlement instructions is executed separately from the net settlement instructions.

(c) Settlement of the transactions subject to the gross settlement is executed through the gross settlement pool accounts of two members reciprocally, in a different manner from the net settlement process.

7) In transactions subject to clearing and settlement, obligations related to different currencies (TL debt closing for TL debt, USD debt closing for USD debt, etc.) must be fulfilled separately.

Net cash settlement

ARTICLE 19 - (1) Net cash settlement obligations are deposited by the members within the time periods set forth in this Procedure to the KMP Member Net Settlement Debt Account opened on a member basis at Takasbank.

(2) The released cash receivables of the entries whose settlement has been concluded against the partially fulfilled obligations may also be paid in a partial manner. Distribution of settlement receivables is performed by taking the status of settlement pool balances during the distribution and the remaining obligations of the members into consideration.

(3) Cash receivables are credited to the members' "Member Free Current Account No.11" at Takasbank.

(4) If requested by the beneficiary member, its settlement receivable is transferred via EFT/SWIFT to the intermediary bank accounts being notified by the member and defined to the system.

(5) The EFT / SWIFT instructions sent by the automation, are transferred considering the minimum amount in the currency defined in the system. The instructions below the minimum amount are kept waiting to be sent and the instructions equal to or above the minimum amount are transferred by automation.

(6) The settlement receivables transferred after the below-stated times to the account of the member to which the receivable distribution is made are sent at the beginning of next business day to its Intermediary Bank Account defined in the system.

Currency	Intermediary Bank Instruction Transfer Cut-Off Time
TL	*17:15
EUR	18:00
USD	18:00

(*) Any change in EFT closing cut-off time shall be taken into account in the implementation of that time.

Net asset settlement

ARTICLE 20 - (1) Net asset obligations are fulfilled by the members on the settlement date within the time periods specified in this Procedure.

(2) Asset settlement is concluded by the reconciliation made by the system following its transfer from the member precious metal settlement accounts to Takasbank Settlement Pool Account.

(3) The members' precious metal denominated obligations subject to the settlement are fulfilled by way of performing settlement-directed collateral withdrawal operation from the precious metal collateral account of the member by the system. By considering the number of precious metal and debt amount stated in the settlement instruction, it is executed ex-officio by the system by transferring them to the member's precious metal settlement account in a manner not to cause the member to fall into any post-settlement trade margin deficit.

(4) The ex-officio transfer made by the system is performed once as of 08:45 for the defaulted settlement instructions; and at the moment the early settlement instruction is created for the early settlement operations; and at specific time intervals for the end-of-day settlement. Takasbank is entitled to determine the relevant times and intervals.

(5) Pursuant to the third paragraph; if the ex-officio transfer is failed to be made, a precious metal collateral withdrawal operation shall be performed by the member in order for the transfer transaction of the precious metal to the settlement account to be executed for the fulfillment of its settlement obligations.

(6) In order for the asset settlement receivables to be paid, the cash obligations must have been fulfilled in accordance with the delivery versus payment principle and the relevant reconciliation must have been made by the system.

(7) The released asset receivables of the entries whose settlement has been concluded against the partially fulfilled obligations may also be paid in a partial manner. Distribution of settlement receivables is performed by taking the status of settlement pool balances during the distribution and the remaining obligations of the members into consideration.

(8) Precious metal settlement receivables are transferred to the members' precious metal collateral accounts of the members.

9) Obligations must be fulfilled with registered assets. Members are responsible for any default that may occur in case of taking a position in unregistered assets instead of registered assets.

Gross cash settlement

ARTICLE 21 - (1) Gross cash settlement obligations are deposited by the members within the time periods set forth in this Procedure to the KMP Member Gross Settlement Debt Account opened on a member basis at Takasbank.

(2) The released asset receivables of the entries whose settlement has been concluded against the partially fulfilled obligations may also be paid in a partial manner. Distribution of settlement receivables is performed by taking the status of member settlement pool balances during the distribution and the remaining obligations of the members into consideration.

(3) Cash receivables are credited to the members' "Member Free Current Account No.11" at Takasbank.

(4) If requested by the beneficiary member, its settlement receivable is transferred via EFT/SWIFT to the intermediary bank accounts being notified by the member and defined to the system.

(5) The EFT / SWIFT instructions sent by the automation, are transferred considering the minimum amount in the currency defined in the system. The instructions below the minimum amount are kept waiting to be sent and the instructions equal to or above the minimum amount are transferred by automation.

(6) The settlement receivables transferred after the below-stated times to the account of the member to which the receivable distribution is made are sent at the beginning of next business day to its Intermediary Bank Account defined in the system.

Currency	Intermediary Bank Instruction Transfer Cut-Off Time
TL	*17:15
EUR	18:00
USD	18:00

(*) Any change in EFT closing cut-off time shall be taken into account in the implementation of that time.

Gross asset settlement

ARTICLE 22 - (1) Gross asset obligations are fulfilled by the members on the settlement date within the time periods specified in this Procedure.

(2) Asset settlement is concluded by the reconciliation made by the system from the member precious metal settlement accounts.

(3) The members' precious metal denominated obligations subject to the settlement are fulfilled by way of performing settlement-directed collateral withdrawal operation from the precious metal collateral account of the member by the system. By considering the number of precious metal and debt amount stated in the settlement instruction, it is executed ex-officio by the system by transferring them to the member's precious metal settlement account in a manner not to cause the member to fall into any post-settlement trade margin deficit.

(4) The ex-officio transfer made by the system is performed once as of 08:45 for the defaulted settlement instructions; and at the moment the early settlement instruction is created for the early settlement

operations; and at specific time intervals for the end-of-day settlement. Takasbank is entitled to determine the relevant times and intervals.

(5) Pursuant to the third paragraph; if the ex-officio transfer is failed to be made, a precious metal collateral withdrawal operation shall be performed by the member in order for the transfer transaction of the precious metal to the settlement account to be executed for the fulfillment of its settlement obligations.

(6) In order for the asset settlement receivables to be paid, the cash obligations must have been fulfilled in accordance with the delivery versus payment principle and the relevant reconciliation must have been made by the system.

(7) The released asset receivables of the entries whose settlement has been concluded against the partially fulfilled obligations may also be paid in a partial manner. Distribution of settlement receivables is performed by taking the status of settlement pool balances during the distribution and the remaining obligations of the members into consideration.

(8) Precious metal settlement receivables are transferred to the members' precious metal collateral accounts of the members.

9) Obligations must be fulfilled with registered assets. Members are responsible for any default that may occur in case of taking a position in unregistered assets instead of registered assets.

Settlement date and period

ARTICLE 23 - (1) Transactions conducted in the Market shall be settled on the same day (T+0). Settlement of the future-dated transactions shall be performed on the value date.

(2) In determining the settlement periods, the business days on which Takasbank and the Market are open shall be taken into account. The times for the settlement operations are as follows.

Settlement Type	Transaction Type	Start Time	End Time
Early Settlement	Net Settlement Cash Debt Closing	09:00	15:45
	Net Precious Metal Debt Closing		
	Gross Settlement Cash Debt Closing		
	Gross Precious Metal Debt Closing		
End-of-Day Settlement	Net Settlement Cash Debt Closing	16:00	17:00
	Net Precious Metal Debt Closing		
	Gross Settlement Cash Debt Closing		
	Gross Precious Metal Debt Closing		

*For fixing transactions with (T+0) maturity, early settlement start time is 14:25 for gold and 15:20 for silver. For forward fixing transactions, early settlement hours are the same as above table.

(3) It is not possible for the parties to conclude the clearing and settlement transactions by fulfilling their precious metal or cash obligations before the settlement date.

(4) The settlement period can be temporarily changed by Takasbank due to the problems arising from the clearing and settlement, custody, payment or market operating systems.

(5) Settlement operations are not executed on the public holidays and on half business days. Settlement of these transactions is made on the following business day by combining them with the transactions of that day.

(6) Our members trading in the Market are required to make available the foreign currency up to their USD and EUR denominated cash settlement and collateral obligations in their accounts on the first business day before the holidays on which the correspondent banks do not provide service. Otherwise; an event of default due to the failure to close their cash debts as well as a trading restriction in the market as a result of the failure to deposit the cash collateral may occur.

Currency

ARTICLE 24 - (1) In the payment of cash obligations arising from the clearing and settlement operations, use of the currency in which the transactions are conducted is essential.

Netting

ARTICLE 25 - (1) In calculation the net debt or receivable amount for the transactions conducted in the Market, employing multilateral netting method on precious metal and currency basis is essential. At the end of netting, the settlement instructions are created against each precious metal in a manner to include the cash receivable/debt information on currency basis. The obligations of the members are on the basis of settlement instructions being created. Daily netting is applied on a portfolio basis. Except for any event of default, obligations and receivables are not netted off between the settlement days. The fifth paragraph of article of 22 of the Procedure shall be reserved.

(2) The market participants may perform their precious metal transactions by way of gross settlement. The settlement of the transactions subject to gross settlement shall be made on a transaction basis and no netting shall be applied.

Rectifying the transactions conducted in the Market

ARTICLE 26 - (1) Rectify operations of the transactions conducted in the Market are performed by Takasbank upon written instructions of the members.

(2) It is possible to rectify the account number area written on the trade; however, no rectify can be requested on other areas.

(3) Rectify operations can be performed until 15:59 from the realization moment of the trade.

4) Rectify operations can be performed until 15:45 for the transactions with early settlement request.

5) Rectify operations can be performed, from the time of trade execution in fixing transactions until 14.25 for gold and 15.20 for silver, when the fixing price is determined.

Early settlement operations

ARTICLE 27 - (1) Members intending to receive their precious metal or cash receivables before the settlement period convey their early settlement claims over Takasbank system.

(2) Early settlement claim is made over the net and gross settlement positions whose settlement date is equal to the system date.

(3) The member's early settlement claims fulfilled or waiting to be fulfilled are deducted from the relevant side (buy/sell) of the position the member can claim and the outstanding claimable amount is disclosed to the member over the system.

(4) The selection of counterparty against the transaction of the member conveying its early settlement claim is made by the Exchange. The Exchange may select one or more than one member to cover the request of the member conveying the early settlement claim. Afterwards, the early settlement claim is approved by the counterparty/members over Takasbank system within the pre-designated time period. The early settlement claims whose counterparty approval has become subject to timeout or been declined shall not be fulfilled. For the unfulfilled requests, the claiming member may re-convey its request over the system.

(5) For the early settlement claims whose counterparty approval has been obtained pursuant to the third paragraph, the asset obligor member shall be obliged to make available the sufficient amount of precious metal in the same type and standard in the member precious metal collateral account held at the Exchange in order for the settlement instructions to be created. If the sufficient amount of the relevant precious metal is available in the collateral account of the asset obligor member, the early settlement-related settlement instructions and the settlement-directed collateral withdrawal operation shall be created by the system.

(6) The members' rights and obligations arising from the transactions subject to early settlement shall be concluded by using the relevant cash or asset accounts designated by Takasbank. For the asset obligor members, the obligations shall be fulfilled by using the precious metal settlement accounts at the Exchange, whereas for the cash obligor members, they shall be fulfilled by using the cash settlement accounts at Takasbank.

(7) For the early settlement transactions, no partial settlement shall be made. The unfulfilled early settlement obligations shall be included in the normal end-of-day settlement. Default provisions shall be applied for the early settlement instructions not being fulfilled.

CHAPTER FIVE

Risk Management and Collateralization Principles

Risk management

ARTICLE 28 - (1) The risk management in the Market is performed by Takasbank in accordance with the principles created by taking the opinion of the Exchange. The risk management system is composed of three layers: pre-trade, at-trade and post trade.

(2) Pre-trade risk management is the process for controlling the collateral adequacy through the risk parameters calculated by taking account of the probability of orders to turn to a transaction.

(3) Parameters used in the pre-trade risk management process are determined by using minimum 1 year data set and 99% confidence level by Takasbank and updated once every three months by considering the market conditions. If it is deemed necessary, Takasbank may revise the pre-trade risk parameter in accordance with the market conditions without waiting for the end of three months' time period. The parameter being determined is announced via a General Letter.

(4) In the pre-trade risk management system, the unit margin can be scaled by using a parameter greater than "one". The collateral balance calculated by taking account of the total margin requirement scaled for an account is referred to as collateral deficit/surplus constituting the basis to the pre-trade risk management. No position increasing order transmission is allowed over the accounts which have collateral deficit subject to the pre-trade risk management. The collateral balance subject to the pre-trade risk management is monitored over PTRM interface. The scaling parameter to be used in the pre-trade risk management system shall be announced by a general letter.

(5) At-trade risk management is the collateral control process performed at the moment the order is turned to a transaction. The risk and/or collateral balance calculations are made in the post and at-trade risk management layers which lead to collateral deposit and withdrawal transactions and all type of position changes. This process includes two separate calculation components in itself.

(a) Instant collateral adequacy calculation made by the "PTRM Margin Calculation Method" in the pre-trade risk management layer at the moment the order turns to a transaction.

(b) Calculation made in the at-trade risk management layer by taking account of the post-trade risk management principles.

(6) Instant collateral adequacy calculation made by the "PTRM Margin Calculation Method" in the pre-trade risk management layer remains in force until the final collateral adequacy calculation conducted in the at-trade risk management layer by taking account of the post-trade risk management principles is completed, and it is replaced by the newly calculated value upon completion of the calculation.

(7) All outstanding passive orders of an account whose collateral becomes insufficient in the intra-day risk calculations are automatically cancelled in the Exchange trading system and any position increasing order transmission is prevented. When the account makes its available collateral level sufficient by way of depositing collateral and/or conducting position reducing transactions, it can transmit position increasing orders again.

(8) Takasbank cannot be held responsible for the temporary blockages that may occur in the order transmission and for the order cancellations because of the fact that the tentative value calculated in the pre-trade risk management system is greater than the final value calculated in the at-trade risk management layer.

(9) At-trade risk calculations are made only for the accounts which have position changes. In the collateral deposit and withdrawal transactions, no update is made in the risk calculations, the collateral balance is updated and the results are transferred to the PTRM system. For the accounts which have no position and collateral movement, no update is made on the pre-order risk management system interface.

(10) Post-trade risk management includes risk and collateral calculations made at the times announced by Takasbank by using the position and collateral balances of the relevant moment and the current prices.

(11) In the post-trade risk management layer, the “required collateral” is calculated by using the portfolio-based collateralization method for each account in accordance with the principles given under the heading “Collateralization Method” of this Procedure.

(12) Results of the calculation made in the post-trade risk management layer is reflected to BISTECH settlement screens.

(13) A certain rate of the collateral value required to be maintained in the Market at the end of each day may be taken into account as maintenance level by Takasbank. The rate for the end-of-day maintenance level is set by Takasbank by considering the market conditions and announced to the members via general letter. Takasbank may set different collateral rates on a member basis provided that it is not below the designated rate.

(14) A margin call shall be issued to the account whose collateral becomes insufficient by exceeding the maintenance level in the end-of-day risk calculations. In such a case, the total appreciated collateral amount of the member is expected to be increased to the collateral requirement level that must be maintained.

CHAPTER SIX

Principles Regarding Collateral

Membership Collateral

ARTICLE 29 - (1) The Market participants shall deposit membership collateral to cover the losses that may be incurred in case of failure to fulfill the obligations against Takasbank for the dues, fees and commissions and other liabilities within the time period given to them. This amount may be re-determined by the Board of Directors by taking account of the developments in the Market provided that the Board’s consent is obtained. The membership collateral shall be deposited in Turkish Lira. Membership collateral is announced to the members on Takasbank website.

(2) If the Members fail to fulfill their obligations under the first paragraph, Takasbank shall collect the relevant amount from the membership collateral. After the collection operation, the Member shall restore its membership collateral to the amounts referred to in the first paragraph within 3 business days. Should the deficit amount be failed to be restored, the relevant 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 have been settled.

Trade margin

ARTICLE 30 - (1) Collateral calculated in accordance with the methods determined by Takasbank shall be received from the members as to be used for any default which may arise from the clearing and settlement operations. 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 precious metal subject to default during the period from occurrence of any default to its resolution.

Initial and variation margins

ARTICLE 31 - (1) Initial and variation margins are requested from the members to cover the risks arising from the settlement positions of the precious metals (gold, silver, plating and palladium) to which service is provided in the Precious Metals Market. The initial margin is received at the beginning to cover, in the event the member falls into default, any price change that may occur in the Market during the time period elapsed from the moment in which the default occurs to its resolution. On the other hand, the variation margin refers to the collateral requirement being calculated as the difference between the margin price of the price feed series constituting the base to the risk and the margin price increased or decreased according to the direction of the position.

(2) In determining the statistical parameters constituting the basis of the initial margin, the confidence level is applied as 99%, and the collateral values are calculated according to the net trading positions of the conducted trades, the Price Scan Range (PSR, %) of relevant value date and the virtual margin series (VMS). VMS is the serial created to constitute the basis for risk calculation by taking account of the carat and weight characteristics determined for each precious metal type. For the future-dated transactions, the initial margin is re-calculated according to the number of remaining days to the settlement. The designated parameters are announced via a general letter, published on Takasbank's website and reviewed once every three months by considering the market conditions. If it is deemed necessary, Takasbank shall revise the risk parameters in accordance with the market conditions without waiting for the three months' period to expire.

Collateralization method

ARTICLE 32 - (1) For the portfolio-based collateralization transactions, Takasbank uses BISTECH Margin Management which takes portfolio-based risk management algorithm as the base.

(2) BISTECH Margin Method classifies the positions of the same precious metal in itself and analyses them. Takasbank calculates the margin requirement with the following steps by using BISTECH Margin Method:

- 1st Step: Initial Margin Calculation.
- 2nd Step: Variation Margin (Bid/Ask Difference Calculation).
- 3rd Step: Total Margin Requirement Calculation.

Precious metal-based risk analysis

ARTICLE 33 - (1) BISTECH Margin Method performs the risk analysis on the basis of precious metal. The risk of each precious metal is calculated independently from other precious metals. The risk of a precious metal is comprised of the sum of initial margin and variation margin (Bid/Ask Difference Calculation).

(2) Initial Margin is a type of risk determined as a result of the Risk Arrays calculation made by the precious metal-based risk management algorithm by applying the relevant scenarios to the "Price Scan Range (PSR)" values for each precious metal. Price Scan Range refers to the maximum price change that may occur for the virtual margin series.

(3) A risk array calculated for each precious metal is a value demonstrating the theoretical profit/loss figure that may occur for such precious metal according to the different price scenarios of the virtual margin series of the contracts specific to the relevant precious metal. The risk arrays are calculated by using 16 standard scenarios given in the following table. The last two of them, corresponding to the 15th and 16th scenarios, represent the extreme moves that may occur in the virtual margin series. To prevent the extreme scenarios from overriding other scenarios, the obtained profit/loss figure is multiplied by 50% value which is a covered fraction.

Scenario	Price Scan Range (Price Move By Perc.)	Scenario	Price Scan Range (Price Move By Perc.);
1	PSR Constant	2	PSR Constant
3	PSR 1/3 Upwards	4	PSR 1/3 Upwards
5	PSR 1/3 Downwards	6	PSR 1/3 Downwards
7	PSR 2/3 Upwards	8	PSR 2/3 Upwards
9	PSR 2/3 Downwards	10	PSR 2/3 Downwards
11	PSR 3/3 Upwards	12	PSR 3/3 Upwards
13	PSR 3/3 Downwards	14	PSR 3/3 Downwards
15	Extreme Move Scenario: PSR 200% Upwards	16	Extreme Move Scenario: PSR 200% Downwards

Calculating the initial margin

ARTICLE 34 - (1) Initial margin is the value being calculated by multiplying the relevant precious metal's total net bid/ask position subject to the settlement by the price scan range (PSR) value and the virtual margin series (VMS) price on the relevant value date.

(2) The initial margins are calculated separately for each precious metal by using the designated parameter values, and the total value is reflected as initial margin.

$$\text{Initial Margin} = \text{Total Net Bid/Ask Positions (gr)} * \text{PSR Value (\%)} * \text{VMS Price}$$

Calculating the variation margin and total margin requirement

ARTICLE 35 - (1) In the Precious Metals Market BISTECH Margin Method, the variation margin calculation is made by using the relevant precious metal's virtual margin series value. This value refers to the collateral requirement being calculated as the difference between the margin price of the virtual margin series constituting the base to the risk and the margin price increased or decreased according to the direction of the position. Variation margin creates an increasing impact on the total margin requirement.

(2) The variation margin is calculated separately for each precious metal and the total variation margin value is found by adding the relevant precious metals' variation margin values.

$$\text{Variation Margin} = \text{Net Position Value(gr)} * (\text{VMS Value} - \text{B/A VMS})$$

(3) Total margin requirement is equal to the sum of initial margin and variation margin.

$$\text{Total Margin Requirement} = \text{Initial Margin} + \text{Variation Margin}$$

Intra-Day Margin Call

ARTICLE 36 - (1) If the collateral deficit of an account exceeds during the day the criteria determined by Takasbank, an intra-day margin call may be issued by Takasbank to ensure restoration of such overruns. The margin call is issued through the system; and the member is notified by phone and/or via electronic mail.

(2) If issued, the obligations subject to the margin call must be fulfilled within 2 hours. The default provisions shall be applied for the obligations failed to be fulfilled within this time period.

(3) Criteria for the intra-day margin call shall be determined by Takasbank by considering issues such as the market conditions, margin concentration, whether or not the margin call originates from the initial margin or variation margin , and the nominal/proportional deficit amounts of the account, etc.

(4) Accounts subject to the intra-day margin call can leave the intra-day margin call status by way of depositing collateral and/or conducting transactions mitigating the required collateral value.

(5) The accounts which have no collateral deficit at neither of the risk calculation times performed within 2 hours following the intra-day margin call shall be deemed terminated their intra-day margin call obligation. In addition, if the appreciated amount of total deposited collateral at the risk calculation times is greater than the intra-day margin call obligation amount or the sum of the increase in the appreciated collateral amount and the decrease in the required collateral amount being calculated at the risk calculation times within 2 hours following the intra-day margin call is greater than such intra-day margin call obligation, the margin call shall be deemed to have been settled.

(6) In cases when the amount subject to the margin call exceeds the criteria it has determined, Takasbank may prevent the position-increasing order transmission over the accounts subject to the call but may also cancel the pending orders.

End-of-Day Margin Call

ARTICLE 37 - (1) An end-of-day margin call is issued for the accounts whose collateral amount falls below the maintenance level as of 18:00 (13:00 for half day).

(2) This amount is informed to the Members through the settlement terminals. Should the margin call be sent via the system, the members shall be deemed to have received the call without the need for any further notice. The responsibility of the member starts at the moment the margin call issued by Takasbank is received by the member.

- (3) The members are obliged to fulfill their margin call obligations at the latest until 15:00 on the next business day. The default provisions shall be applied for the obligations failed to be fulfilled during this time period. The collateral restoration deadline on half business days is 11:00.
- (4) Accounts with an issued margin call or fallen into default can leave the margin call or default status by way of depositing collateral and/or conducting transactions mitigating the required collateral value.
- (5) The accounts which have no collateral deficit at neither of the risk calculation times on the business day following the margin call shall be deemed terminated their margin call or default obligation. In addition, if the appreciated amount of total deposited collateral is greater than the margin call obligation or the sum of the increase in the appreciated collateral amount and the decrease in the collateral amount required to be held within the day is greater than the margin call obligation calculated at the end of the previous business day, the margin call or the default shall be deemed to have been settled even if the account has collateral deficit at all of the intraday risk calculation times.
- (6) In cases when the amount subject to the margin call exceeds the criteria it has determined, Takasbank may prevent the position-increasing order transmission over the accounts subject to the call but may also cancel the pending orders.

Assets eligible as collateral and the composition limits

ARTICLE 38 - (1) The following assets can be used by the members for the fulfillment of the margin obligations.

- a) Cash Turkish Lira.
 - b) Convertible Foreign Currency (USD, EUR,GBP).
 - c) Government Domestic Debt Securities.
 - d) Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company.
 - e) Letter of Guarantee (TL, USD, EUR).
 - f) Precious Metal.
 - g) Republic of Turkey Undersecretariat of Treasury Foreign Debt Securities (Eurobond).
- (2) The letters of guarantee and the precious metals are delivered to Borsa İstanbul.
- (3) During the collateral valuation process, the asset-based group limit is applied as 100%.
- (4) Takasbank Board of Directors is authorized to set group limits for the new assets to be accepted as collateral or revise the group limits including those defined in this Procedure.
- (5) The group limits, if applied, are calculated over the total deposited collateral.

Valuation haircuts

ARTICLE 39 - (1) In calculating the valuation haircuts reflecting the deduction rates and to be applied to the collateral, the parametric, non-parametric or simulation-based statistical methods deemed appropriate by Takasbank shall be used. 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.

(2) The statistical confidence level and the liquidation period to be used in the calculations to be made separately for the precious metals and convertible foreign currency cannot be less than 99.90% and 2 business days respectively. The historical data to be used in the calculations must not be shorter than 1 year. The valuation haircuts for the assets in which there is insufficient data or no data at all are determined by taking the haircuts calculated for the assets in similar nature as reference.

(3) In calculating the collateral values of non-Turkish Lira assets to be accepted as trade margin, the following valuation haircuts shall be taken as the basis.

Collateral Type	Valuation Haircut
Turkish Lira	100%
Convertible Foreign Currency (USD-EUR-GBP)	100%
Precious Metal	100%
Letter of Guarantee (TL-USD-EUR)	100%
Government Domestic Debt Securities	91%
Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company	88%
Republic of Turkey Undersecretariat of Treasury Foreign Debt Securities (Eurobond)	83%

Updating the values of trade margin

ARTICLE 40 - (1) Assets accepted as collateral are made subject to valuation at the risk calculation times within the day, during the collateral depositing and withdrawal transactions and at the end of each business day over the prices determined by Takasbank to ensure their valuation with the current market prices. At the risk calculation time running at the margin call restoration deadline, the valuation is made with the end of previous day prices.

Valuation	Valuation Criteria	Explanation
Foreign Currency	Intra-day: Interbank Market Buy - Sale quotation average. End-of-day: CBRT Foreign Currency Buying Rate.	Average Interbank Market rates throughout the day including the end of day risk calculation time at 18:00, and for the end-of-day risk calculation time, the buying rate published by CBRT at 15:30.
Treasury Bills and Government Bonds - Sukuk	Intra-day: Theoretical price determined by using Takasbank yield curve or the CBRT Prices. End-of-day: Theoretical price determined by using Takasbank end-of-day yield curve or the CBRT Prices.	GDDS/Sukuk: They are valued by using the prices calculated by the yield curve comprising of zero-coupon and fixed-coupon bonds trading in the Exchange Debt Instruments Market, and if access to these prices is not possible, the benchmark daily values of Government Domestic Debt Securities determined by CBRT. Values used in the valuation may vary in parallel with the yield curve being updated at the intra-day risk calculation times.
Eurobond	Intra-day: Theoretical price determined by using Takasbank yield curve or the price determined by Takasbank. End-of-day: Theoretical price determined by using Takasbank yield curve or the price determined by Takasbank.	Prices calculated by the yield curve comprising of the traded Eurobonds and if the yield curve is failed to be formed, the price determined by Takasbank.
Gold, Silver, Platinum and Palladium in the standard traded in the Exchanges	Intra-day: Last trade price realized in BİAŞ Precious Metal Market before the calculation time. End-of-day: BİAŞ Precious Metal Market end-of-day bulletin price.	It is valued by the price calculated by using the previous end-of-day CBRT foreign currency buying rate and the USD/ONS price formed for transactions with T+0 value date in the Exchange Precious Metals Market. If no trade is realized, the theoretical price or the weighted average price formed in the previous session can be used.

(2) Prices subject to valuation are announced by Takasbank during the day through the Applicable Collateral Report available on Takasbank Integration Menu. Theoretical pricing formulas and methods that can be used in the valuation of assets accepted as collateral by Takasbank shall be published on Takasbank website.

Use of trade margin

ARTICLE 41 - (1) The letters of guarantee and precious metal-denominated trade margins held at the Exchange and other trade margins held in custody at Takasbank are used for the fulfillment of the member's obligations against other members due to the settlement transactions.

(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 set forth in the provisions of the agreement or the relevant legislation, Takasbank shall be entitled to sell the asset subject to collateral in the market if such asset is listed in the exchange or another organized market and cover its receivables from the sale proceeds 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, converting collateral into cash through an auction or another way, etc..

(3) The securities of the members in the collateral account are formally used in the order from the most liquid asset to the lowest liquid asset on the base of convertibility features.

(4) Should the collateral be resorted by Takasbank, the collateral held in custody at Takasbank shall be resorted directly. However; for the collateral held at the Exchange, the necessary actions shall be immediately performed by the Exchange in accordance with the instruction to be given to the Exchange.

(5) Takasbank shall return the collateral together with their rights upon request of the Member on condition that the obligations have been fulfilled.

Collateral monitoring and management

ARTICLE 42 - (1) Takasbank's rights and entitlement on the 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 asset values subject to collateral cannot be raised against Takasbank.

Collateral deposit or withdrawal operations

ARTICLE 43 - (1) Deposit and withdrawal operations related to the assets eligible as collateral (except collateral in the form of letter of guarantee and precious metal) can be conducted from the member screens or by a written instruction to be given to Takasbank. No direct transaction can be conducted to these accounts.

(2) Collateral deposit and withdrawal transactions are performed by way of making electronic transfer from or to the member free accounts.

(3) If requested by the member, the withdrawn cash collateral amount is transferred automatically via EFT/SWIFT to the intermediary bank accounts notified by the member and defined to the system opened in their own name at a bank resident in Turkey.

(4) Collateral deposit and withdrawal operations are performed by physically delivering/collecting the collateral in the form of letter of guarantee and precious metal to/from the collateral account at the Exchange.

(5) Deposit and withdrawal deadlines on collateral basis are as follows:

Assets Eligible as Trade Margin	Full Day Deposit Deadline	Half Day Deposit Deadline	Full Day Withdrawal Deadline	Half Day Withdrawal Deadline
Cash Turkish Lira	19:00	12:45	15:40	11:40
Convertible Foreign Currency (USD/EUR/GBP)*	19:00	12:45	19:00	12:45
Government Domestic Debt Securities	19:00	12:45	19:00	12:45
Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company	19:00	12:45	19:00	12:45
All Types of Precious Metal traded in Borsa Istanbul	19:00	12:45	19:00	12:45

(*)Cut-off times for transferring any collateral surplus to the intermediary banks defined in Takasbank system based on the instructions given by the members are stated below.

Currency	Collateral withdrawal cut-off times (to Intermediary Bank Account)
TL	15:40
EUR	16:15
USD	16:30
GBP	12:00

(6) The cut-off times to deposit collateral and withdraw non-TL collateral are for the transfers between the accounts at Takasbank. For any transfer to outside or other than Takasbank, the operational business rules of the relevant payment system/custody institution shall be applied.

Accrual of interest on cash collateral

ARTICLE 44 - (1) Cash Turkish Lira collateral deposited by the members are accrued interest over the amount remaining after deducting the portion to be set aside as compulsory reserve, if any, with the best possible conditions by Takasbank by taking the credit risk and liquidity conditions into consideration. The accrual process is performed within Takasbank limits.

(2) Tax and other legal liabilities are deducted together with Takasbank commission from the gross interest amount obtained as a result of the accrual of interest process.

(3) No interest shall be accrued on cash Turkish Lira collateral deposited to Takasbank as collateral after 15:40 for full business days and after 11:40 for half business days.

(4) The deduction of legal liabilities and accrual of interest commission over the gross interest amount is made during the interest distribution.

(5) No accrual of interest operation shall be performed for the members wishing to receive no interest. Any change made in Takasbank system until the accrual of interest deadline shall be applicable for the same day.

CHAPTER SEVEN

Principles Regarding the Default Procedures

Default principles

ARTICLE 45 - (1) In case of presence of the following situations, the relevant member shall be deemed to have defaulted without the need for any further notice and the default provisions shall be applied.

- a) Failure to fulfill the margin calls issued by Takasbank within the time period prescribed in this Procedure.
- b) Failure to fulfill the obligation related to the clearing and settlement operations until the deadline set forth in this Procedure.
- c) Decision by Takasbank for the liquidation of the member's obligations pursuant to article 39 of this Procedure.
- d) Failure to fulfill early settlement obligations by the early settlement cut-off time

(2) In the event of default, Takasbank may not allow the member to withdraw its collateral in its relevant accounts. The decision thereof shall be made by Takasbank by considering the size of default, excess/deficit collateral amounts outstanding in the collateral accounts and the market conditions. By taking the size of default and the market conditions into consideration, Takasbank may ask from the Exchange to restrain order transmission over the member's accounts and delete the pending orders from the order book.

(3) The member can be allotted time by Takasbank to resolve its event of default until 12:00 on the business day following the default date at most. Should the event of default be failed to be resolved until the end of the allotted time period, the amount of compensation arising from the price difference of the defaulted member is calculated with the instructions and current price information to be submitted by the Exchange. The calculated amount of penalty fee is collected by Takasbank by using the current account balances of the member in default. In case of the balance is insufficient, the amount of transaction collateral to cover the debt amount is blocked against the risk of non-payment of the remaining debt amount the transaction subject to the defaulted settlement instruction and the Exchange instruction shall be cancelled and the relevant settlement positions shall be closed.

(4) For fulfillment of the cash obligations, the member's transfer time to the relevant cash debt closing account, whereas for fulfillment of the asset obligations, their transfer time to the settlement pool account at the Exchange shall be taken as the base for the debt closing time.

(5) Default interest arising from early settlement and normal settlement obligations shall be collected separately for each default and shall not be combined.

Asset Default

ARTICLE 46 - (1) In the clearing and settlement operations, delivery of asset subject to settlement to the beneficiary member by Takasbank is essential upon default of the member obliged to deliver the asset. Without prejudice to the default provisions of the asset settlement obligor, should the asset debt be obtained in part or in whole, the receivable allocation process shall be made according to the relevant gross or net asset settlement procedure.

(2) In case of any asset default, the default interest shall be applied in accordance with article 45. A compensation payment shall be made to the asset beneficiary pursuant to article 48.

3) In case the early settlement obligation is not fulfilled until the early settlement cut-off time, default interest shall be applied within the scope of article 48 of this Procedure and the unfulfilled early settlement obligations shall be included in the normal end-of-day settlement. No compensation shall be paid to the counter member for the unfulfilled early settlement obligations.

Cash Default

ARTICLE 47 - (1) If the cash debt is paid partially or wholly, making payment to the settlement beneficiary within the same day is essential. Without prejudice to the default provisions of the cash settlement obligor, should the cash debt be obtained in part or in whole, the receivable allocation process shall be performed in accordance with the relevant Gross or Net cash settlement arrangement. If the event of default has not been resolved until the end of the given time period, the defaulted settlement instructions failed to be settled shall be cancelled by Takasbank and the unsettled defaulted settlement positions shall be closed. However, if the early settlement obligation is not fulfilled until the early settlement deadline, default interest shall be applied within the scope of article 48 of this Procedure and the unfulfilled early settlement obligations shall be included in the normal end-of-day settlement. No compensation shall be paid to the counter member for unfulfilled early settlement obligations.

(2) In case of any cash default, the default interest shall be applied in accordance with article 45. A compensation payment shall be made to the cash beneficiary pursuant to article 48.

(3) The cash obligor shall be obliged to pay such cash until the deadline given for resolving the event of default.

(4) If Takasbank incurs any financial loss due to non-fulfillment of any cash debt by the cash defaulting member/members, such cash loss amount shall be collected from the cash defaulting member/members pro-rata to their cash default obligations.

(5) The cash default obligor member is obliged to pay the default amount together with the default interest to be calculated in accordance with article 45 and article 46 of the Procedure.

Default interest

ARTICLE 48 - (1) Default interest shall be collected together with its legal obligations from the member who have fulfilled its settlement and collateral 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.

(3) A default interest shall be applied to the defaulting member up to the amount to be calculated over the unfulfilled obligation amount by using the highest of the overnight weighted average interest rates created in BİAŞ Repo Reverse-Repo Market, CBRT Interbank Money Market or Takasbank Money Market by taking the haircuts determined by the article 49 of the Procedure as the base. The default interest is not applied if default arises from problems in the Exchange, Takasbank and the CBRT systems.

(4) 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.

Calculating default interest

ARTICLE 49 - (1) The default base for the cash obligations is the amount closed with delay, whereas for the precious metal obligations, it is the amount calculated by multiplying the number of precious metal closed with delay with the price given in the second paragraph for the relevant precious metal type.

(2) For gold, the USD price of the last trade price realized for the products with specific standards in the market and calculated by taking account of the weight and karat characteristics of the product being defaulted shall be used in the system on settlement date. For other precious metals, the USD price of the current international previous metal prices published by the data broadcasting institutions and calculated by taking account of the weight and karat characteristics of the product being defaulted shall be used on settlement date.

(3) Default interest amount is calculated by using the following formula and the legal liabilities are added, if any.

$$\text{Base} * (\text{base interest}/100) * \text{days}/360 * \text{haircutmismatch}$$

(4) If the obligations are fulfilled on the settlement date after the settlement deadline, the haircut shall be applied as 0.5 (one-half), and if they are fulfilled on the subsequent days, the haircut shall be applied as 2 (two).

TYPE OF OBLIGATION	TIME SPAN (Full Working Day)	COEFFICIENT
CASH / ASSET (TRY - USD - EUR) (For Gross and Net Settlement)	After 17:01 with same day value (including 17:01)	0.5
	After the value date	2
CASH / ASSET (TRY - USD - EUR)	After 15:46 (including 15:46)	0.5

(For Early Settlement)		
	MARGIN CALL	
	After 15:01 (including 15:01)	0.5
	After the value date	2

(5) If the defaulting member is given any time period to resolve the default, the moment at which the default occurs shall be taken into account in calculating the default interest amount.

(6) The default interest amount shall be accrued in Turkish Lira. In converting the relevant foreign currency to Turkish Lira, the foreign currency buying rate announced by the CBRT shall be used.

(7) In case of default on more than one obligation on the same day (net, gross, early settlement, collateral), the penalties calculated are collected separately, not combined.

Compensation Calculation from Price Difference

ARTICLE 50 – (1) Takasbank carries out the calculation of compensation fee of the compensated member because of price difference, after the current prices are submitted by the Exchange.

- 2) The price obtained from the Exchange is based on a currency other than the defaulted currency subject to the default transaction, the current price currency obtained from the CBRT exchange rate announced the day before is converted to the price based on the default currency. If weight unit of the prices is different, the weight unit is also converted to the weight unit of the defaulted securities.
- 3) The compensated member's transaction is calculated with the current prices. The current prices that are obtained, are multiplied by the number, fineness and weight information of the precious metal related to the defaulted amount.
- 4) If the amount calculated on the current price provided in case of default of the security seller is higher than the amount of the compensated transaction and the amount calculated on the current price obtained in case of default of the cash debtor is less than the amount of transaction subject to the compensation, the difference between the amounts is the compensation amount due to the price difference.
- 5) The calculated amount is multiplied by the CBRT foreign exchange selling rate and converted into TL currency.

Accrual, notification and collection

ARTICLE 51 - (1) The default interest amount and other legal liabilities shall be daily calculated based on the obligations fulfilled with delay or failed to be fulfilled at the end of the relevant day by the member, and the calculated amount shall be accrued on the second business day following this.

(2) The accrued default interest amount shall be paid together with other legal liabilities within 3 business day following the accrual date.

(3) Notification of the accrued default interest shall be made in electronic environment through the member screens. Upon delivery of the notification in electronic environment, the member shall be deemed to have received it without the need for any further warning or notice.

(4) The default interest amount 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 amount and other legal liabilities shall also be collected in accordance with the provisions of article 45 and article 46 of the Procedure regarding the default management process.

(5) The compensated amount due to the price difference is calculated as of 12:00 on the working day after the default date and the defaulting member is notified. Following the submission of the electronic notification, the member shall be deemed to have received the notification.

(6) The compensation payment due to the price difference is paid by default member within 3 working days after notification. The collected amounts are transferred to the free accounts of the compensating members within the same day. The amount of compensation due to the price difference which is not paid within the defined period shall be collected in accordance with the provisions of Article 49 of the Procedure.

(7) The compensated amount due to the price difference to be paid is limited to the transaction guarantee amount of the relevant contract.

Takasbank Default Management Committee

ARTICLE 52- (1) The member accruing default interest may object to Takasbank on the grounds that the default has occurred without its fault due to reasons arising from the Exchange, Takasbank, or the CBRT system, or that an error has been made in the calculation of default interest.

2) The objections shall be made within 1 week at the latest as of the default accrual date with a letter and the documents related to the objection attached.

3) The objection of the defaulting member shall be evaluated and resolved by the Default Committee established within Takasbank pursuant to article 35 of the Central Clearing and Settlement Regulation.

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

5) The objection does not stop the payment of default interest within the term.

Compensation Payment

ARTICLE 53 - (1) A compensation payment shall be made in accordance with the conditions set forth in the fifth paragraph to the member to whom the delivery or payment has been failed to be made on the settlement date due to the default of the member in fulfilling its commitment. However, no compensation payment shall be made for any delivery and payment made with delay within the same day.

(2) For making the compensation payment, no member request shall be sought. If, on the other hand, the member wishing not to receive any compensation payment informs Takasbank in writing of its request thereof, no payment shall be made to that member.

(3) Two-thirds (2/3) of the default interest collected from the defaulting member shall be paid as a compensation payment against the delayed days to the member to whom delivery or payment has been failed to be made due to the defaulting member. If the default interest is failed to be collected, no compensation payment shall also be paid. The compensation payments are calculated on a daily basis.

(4) The compensation payments shall be made to the members' free current accounts.

(5) In order for the compensation payment to be made;

- a) if the defaulting member has made a written objection, the objection should have been deemed null and the collection of the default interest should have been resolved,
- b) the default should not have been originated from any problem occurred at the Exchange, Takasbank and CBRT system,
- c) the beneficiary member should have been fulfilled its settlement obligations on time.

CHAPTER EIGHT

Miscellaneous Provisions

Fees and commissions

ARTICLE 54 - (1) The fees for the services provided under this Directive shall be determined in accordance with the principles stipulated in article 61 of the Central Clearing and Settlement Regulation and announced to the members.

(2) The fees shall be accrued as per the nature of the transaction either at the moment of the transaction or on a monthly basis and collected from the member's accounts at Takasbank.

(3) Any commission amount not being objected within 3 business days after its accrual date shall be deemed accepted.

(4) Any commission failed to be paid within its time period shall be collected ex-officio from the free current accounts of the members.

Disciplinary provisions

ARTICLE 55 - (1) The disciplinary provisions stipulated in the Chapter Seven of the Central Clearing and Settlement Regulation shall be applied to the members failing to comply with the obligations specified in this Procedure.

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

ARTICLE 56 - (1) In case of no provision in the Procedure, the provisions of the Central Clearing and Settlement Regulation and of the Directive shall be applied.

Enforcement

ARTICLE 57 - (1) The Procedure shall enter into force on the date of its announcement.

Execution

ARTICLE 58 - (1) The provisions of the Procedure shall be executed by the General Manager.

Appendix.1: Intermediary Banks Notification Form

Information that must be indicated in the notification to be sent via a written instruction to Takasbank for the Intermediary Bank Account Numbers opened in their names at a bank resident in Turkey to be used by the Market members in the Collateral Withdrawal Operations and for transferring the market receivables arising from Borsa Istanbul Inc. Precious Metals Market transactions is given below.

Minimum 1 and **maximum 5** notification(s) for each currency must be given and one account must definitely be selected as “designated account”.

Intermediary Banks Notification Form

Intermediary Bank Account No. Information to which Borsa Istanbul Precious Metals Market TL Receivables and TL Collateral are sent (TL)

Intermediary Bank	Required Information	Explanation	*Designated Account (This area must be marked for the selected account)
<u>Bank 1</u>	<u>Bank Name</u>		
	<u>Branch Name</u>		
	<u>Beneficiary Name</u>		
	<u>(*) Account Number</u>		
	<u>IBAN</u>		
<u>Bank 2</u>	<u>Bank Name</u>		
	<u>Branch Name</u>		
	<u>Beneficiary Name</u>		
	<u>(*) Account Number</u>		
	<u>IBAN</u>		
<u>Bank 3</u>	<u>Bank Name</u>		
	<u>Branch Name</u>		

	<u>Beneficiary Name</u>		
	<u>(*) Account Number</u>		
	<u>IBAN</u>		
<u>Bank 4</u>	<u>Bank Name</u>		
	<u>Branch Name</u>		
	<u>Beneficiary Name</u>		
	<u>(*) Account Number</u>		
	<u>IBAN</u>		
<u>Bank 5</u>	<u>Bank Name</u>		
	<u>Branch Name</u>		
	<u>Beneficiary Name</u>		
	<u>(*) Account Number</u>		
	<u>IBAN</u>		

(*) IBAN number is a compulsory field for the “Customer” payments, whereas an account number must be notified instead of IBAN number for the “Corporate” payments.

Stamp and Signature

Intermediary Banks Notification Form (In Foreign Currency)
Account Numbers to which Borsa İstanbul Precious Metals Market Foreign Currency
Denominated (/) Receivables and Collateral are sent

Intermediary Bank	Required Information	Explanation	*Designated Account (This area must be marked for the selected account)
<u>Bank 1</u>	<u>Correspondent Bank BIC Code</u>		
	<u>Correspondent Bank Account Number</u>		
	<u>(*) Beneficiary IBAN</u>		
	<u>Branch Code</u>		
	<u>Beneficiary Name</u>		
	<u>Bank BIC Code</u>		
<u>Bank 2</u>	<u>Correspondent Bank BIC Code</u>		
	<u>Correspondent Bank Account Number</u>		
	<u>Beneficiary IBAN</u>		
	<u>Branch Code</u>		
	<u>Beneficiary Name</u>		
	<u>Bank BIC Code</u>		
<u>Bank 3</u>	<u>Correspondent Bank BIC Code</u>		
	<u>Correspondent Bank Account Number</u>		
	<u>Beneficiary IBAN</u>		
	<u>Branch Code</u>		
	<u>Beneficiary Name</u>		
	<u>Bank BIC Code</u>		
<u>Bank 4</u>	<u>Correspondent Bank BIC Code</u>		
	<u>Correspondent Bank Account Number</u>		
	<u>Beneficiary IBAN</u>		
	<u>Branch Code</u>		
	<u>Beneficiary Name</u>		
	<u>Bank BIC Code</u>		
<u>Bank 5</u>	<u>Correspondent Bank BIC Code</u>		

<u>Correspondent Bank Account Number</u>	
<u>Beneficiary IBAN</u>	
<u>Branch Code</u>	
<u>Beneficiary Name</u>	
<u>Bank BIC Code</u>	

Stamp and Signature