General Letter : 1339 Derivatives Clearing & Settlement Team Central Counterparty Department

Subject:	Changes made in the VİOP CCP Directive and Principles for the
Related participants:	Maintenance Level and Intraday Margin Calls Brokerage Firms Banks

Dear General Manager,

Due to the changes and developments in BISTECH infrastructure, "Directive On Central Counterparty Service To Be Provided By Istanbul Settlement And Custody Bank Incorporation To Borsa Istanbul Incorporation Futures And Options Market And The Clearing And Settlement Principles Regarding This Service" which regulates the services related to the Istanbul Stock Exchange Futures and Options Market (VIOP) was amended. These amendments were approved by the Takas Istanbul Board of Directors (dated 20.01.2017) and approved by the Capital Markets Board (dated 17.02.2017). The table of changes is attached and full version will be published in the Takas Istanbul web site. Full version of the Directive can be accessed on our web site under the heading of Directives in Resources (https://www.takasbank.com.tr/en/Pages/Directives.aspx). The Directive changes will enter into force with the migration of VIOP to BISTECH.

In addition, risk management business rules will be revised following the introduction of the BISTECH system in VIOP. In BISTECH, a 25% maintenance level will be applied during the session for the total margin. For monitoring the maintenance margin, the ratio between total collateral and total risk will be taken into consideration. Real-time position-increasing orders will be blocked by the system for the accounts exceeding the maintenance level. For the end of the day margining calculations, the maintenance level will not be applied.

Furthermore, an intra-day margin call can be made for accounts with specified inadequate level of total collateral and minimum cash requirements. The amounts of margin call will be determined by Takasbank considering market conditions, margin concentration, whether the margin call is originated from initial margin or variation margin and the nominal/ proportional deficit of the account

Sincerely Yours,

TAKASBANK ISTANBUL SETTLEMENT AND CUSTODY BANK INC.

Aydın SARI Executive Vice President

Gökhan ELİBOL Executive Vice President

Annex.1: Comparison Table for Article Changes in Directive

ANNEX.1: Comparison Table for Article Changes in Directive*

Directive On Central Counterparty Service To Be Provided By Istanbul Settlement And Custody Bank Incorporation To Borsa Istanbul Incorporation Futures And Options Market And The Clearing And Settlement Principles Regarding This Service **Old version** New version **Definitions and Abbreviations Definitions and Abbreviations** ARTICLE 4- (1) Terms used in this Procedure shall bear the following meanings; ARTICLE 4- (1) Terms used in this Procedure shall bear the following meanings; c) Pre-Order Risk Management: The process of the measurement of risk that the c) Pre-Order Risk Management: The requirement of collateral adequacy by taking portfolio may be exposed by the entry of a new order prior to the matching of into account the matching probability of orders placed in the Exchange order the orders sent to the Exchange as if they are realized and the process of system, acceptance or non-acceptance of the order accordingly, Transition between membership types Transition between membership types ARTICLE 7 - The applications for general clearing membership by the direct ARTICLE 7 - The applications for general clearing membership by the direct clearing clearing members who meet the eligibility requirements for the general clearing members who meet the eligibility requirements for the general clearing membership shall be finalized by Takasbank. membership shall be finalized by Takasbank in 2 months. Membership conditions Membership conditions ARTICLE 8 -(1) c) Receiving at least TBD7 rating note as a result of the internal ARTICLE 8 -(1) c) Receiving at least D rating note as a result of the internal rating rating study conducted by Takasbank within the scope of third paragraph, study conducted by Takasbank within the scope of third paragraph Membership conditions Membership conditions ARTICLE 8 - (2) c) Receiving at least TBD3 rating note as a result of the internal ARTICLE 8 - (2) c) Receiving at least B rating note as a result of the internal rating rating study conducted by Takasbank within the scope of third paragraph. study conducted by Takasbank within the scope of third paragraph. Membership conditions Membership conditions ARTICLE 8 -(3) In the context of internal rating study conducted by Takasbank to ARTICLE 8 -(3) In the context of internal rating study conducted by Takasbank to determine the rating note of the company, the financial statements of such determine the rating note of the company, the financial statements of such company, its activity report, company introductory information form, company company, its activity report, company introductory information form, company key information form, its transaction volumes in the markets, TL custody key information form, its transaction volumes in the markets, TL custody balances, the latest status of accounts opened on customer basis, default and balances, the latest status of accounts opened on customer basis, default and intelligence information concerning the company, and the credit ratings received intelligence information concerning the company, and the credit ratings received from the rating agencies, if any, and the market intelligence information as well from the rating agencies, if any, and the market intelligence information as well as the news featured in visual and printed media are used. Takasbank announces as the news featured in visual and printed media are used. Takasbank announces the general features of the internal rating methodology it adopts at its web site. the general features of the parameters considered in its internal rating methodology as well as the effects of these parameters on the rating notes, on its web site. Membership application and commencement of operations Membership application and commencement of operations ARTICLE 9- (2) For the membership applications to be eligible for assessment by ARTICLE 9- (2) For the membership applications to be eligible for assessment by Takasbank, the information and documents stated in the first paragraph of this Takasbank, the information and documents stated in the first paragraph of this article as well as other documents that may be requested by Takasbank must article as well as other documents that may be requested by Takasbank must have have been completed. The applications shall be assessed by Takasbank within 60 been completed. The applications shall be assessed by Takasbank within 60 days days following the submission of the application in an accurate and complete following the submission of the application in an accurate and complete manner, manner, in terms of whether the conditions specified in article 8 have been met in terms of whether the conditions specified in article 8 have been met or not. The or not. The final decision made by Takasbank on the application shall be notified final decision made by Takasbank on the application shall be notified to those to those concerned in writing with its justification. concerned in writing with its justification in 2 months. Segregation Segregation ARTICLE 17 – (1) Two different types of accounts can be opened with Takasbank; ARTICLE 17 - (1) Two different types of accounts can be opened with Takasbank; a "Customer Account" and a "Portfolio Account". Customer Account is an a "Customer Account" and a "Portfolio Account". Customer Account is an account account where the transactions executed by the Member with its customers are where the transactions executed by the Member with its customers are monitored. Portfolio Account, on the other hand, is an account where the monitored. Portfolio Account, on the other hand, is an account where the transactions executed by the Member for its own portfolio are monitored. In the transactions executed by the Member for its own portfolio are monitored. In the Market, the customer positions and collaterals are monitored separately from Market, the customer positions and collaterals are monitored separately from the the Member's own portfolio and collaterals. The positions and collaterals Member's own portfolio and collaterals. The positions and collaterals belonging to belonging to the Member's own portfolio are monitored in a position account to the Member's own portfolio are monitored in a position account to be opened be opened exclusively for the members and in a linked trading and collateral exclusively for the members and in a linked trading and collateral account. Each account. Each member is required to have a portfolio account and one portfolio member is required to have a portfolio account. Among those members who are account can be opened at most. On the other hand, among those members who qualified as a market maker in accordance with the Exchange legislation can also are qualified as a market maker in accordance with the Exchange legislation can open a market maker account. Market Maker Account is an account where the also open a market maker account. Market Maker Account is an account where market makers monitor the transactions they conduct only for their own portfolio the market makers monitor the transactions they conduct only for their own in accordance with the market making operations. portfolio in accordance with the market making operations. (2) It is essential that the Members monitor the customer positions on single-(2) It is essential that the Members monitor the customer positions on singleposition accounts to be opened in Takasbank system. The collaterals related to the position accounts to be opened in Takasbank system. On the other hand,

multiple-position accounts can be opened as to be limited to the transactions conducted within the scope of the portfolio management activities. The principles relating to the opening of the accounts shall be stipulated in the procedure. The collaterals related to the customer positions monitored through single-position accounts can only be used to liquidate obligations of the respective customer. Opening of the multiple-position accounts can be restricted on a member basis. The collateral obligations arising as a result of the transactions conducted over the multiple-position accounts must be covered by collaterals owned by the Member or on which the Member has the power of disposition. Collaterals deposited by the Member to the collateral accounts of such a nature that are associated with the multiple-position accounts by Takasbank shall be deemed to belong to the Member.	customer positions monitored through single-position accounts can only be used to liquidate obligations of the respective customer. (3) Multiple -position (global) accounts can be opened as to be limited to the transactions conducted within the scope of the portfolio management activities . Opening of the multiple-position accounts can be restricted on a member basis . Collaterals deposited by the Member to the collateral accounts of such a nature that are associated with the multiple-position accounts by Takasbank shall be deemed to belong to the Member. Principles for opening accounts are specified in the Procedure .
General principles for clearing and settlement ARTICLE 20-(3) For the clearing and settlement of the transactions executed in the Market, delivery against payment principle shall be applied with respect to the relation between the Member and Takasbank. The receivables up to the amount of the obligation failed to be fulfilled by the Members shall not be paid to the Members who have margin call requirement, and a blockage shall be imposed up to an amount of the margin call. As the debts arising from the margin call are paid , the blocked receivables shall be released up to the debt amount being paid. The member shall be responsible for paying its debt arising from the margin call until the end of clearing and settlement period.	General principles for clearing and settlement ARTICLE 20-(3) For the clearing and settlement of the transactions executed in the Market, delivery against payment principle shall be applied with respect to the relation between the Member and Takasbank. The member shall be responsible for paying its debt arising from the margin call until the end of clearing and settlement period.
Risk management ARTICLE 23- (2) Transactions executed in the market are received by Takasbank from the Exchange and turned into positions on a real-time basis. For the accounts whose positions are updated, the "initial margin" is calculated by using the final open position and the confidence level and holding periods to be determined in the Procedure according to the fixed or proportional or portfolio based collateralization method defined in the Procedure, as to have at least a 99% confidence level and 2 business days holding period. The maintenance margin equals to the 75% of the initial margin value. Takasbank may determine different margin rates and amounts on the basis of customers; provided, however, that such rates and amounts shall not be less than those mentioned above.	Risk management ARTICLE 23- (2) Transactions executed in the market are received by Takasbank from the Exchange and turned into positions on a real-time basis. For the accounts whose positions are updated, the "initial margin" is calculated by using the final open position and the confidence level and holding periods to be determined in The Procedure according to the fixed or proportional or portfolio based collateralization method defined in the Procedure, as to have at least a 99.50% confidence level and 2 business days holding period.Takasbank may determine different margin rates and amounts on the basis of customers; provided, however, that such rates and amounts shall not be less than those mentioned above. Intra- day margin call (IDMC) may also be executed and principles of the IDMC level will be defined the Procedure.
Risk limits ARTICLE 24 -(1) Takasbank allocates specific risk limits to the Members based upon their financial capabilities. The risk limits are determined on the basis of the margin requirement values in relation to the positions held by the Members.	Risk limits ARTICLE 24 -(1) Takasbank allocates specific risk limits to the Members based upon their financial capabilities. The risk limits are determined on the basis of the margin requirement values in relation to the risk limit calculations based on required collateral for the Members' positions held .
 (3)The total margin requirement arising as a result of all positions taken by the Member for itself and its customers exceeds its risk limit or not; shall be controlled according to principles set out in the procedure. (4) When a Member exceeds its risk limit, the amount exceeding the limit shall be multiplied gradually by the coefficients specified in procedure and the total amount obtained thereof shall be added to the Member's margin requirement that should be maintained in its portfolio account. All accounts of the Member who fails to provide the additional margin within the time specified in Procedure shall be changed to "risky" status. (5) If the member exceeds the ratio of total required collateral to its risk limits defined in Procedure as result of all positions taken by the Member for itself and its customers, all accounts of the Member shall be changed to 'risky' status regardless of whether the portfolio account collateral adequacy is sufficient. The provisions of the third paragraph of 24 article shall apply to the accounts for risky situation. 	 (3) Whether the risk limit calculations based on required collateral as a result of margin calculations for the positions held by Member itself and its customers exceeds its risk limit or not; shall be controlled according to principles set out in the procedure. (4) When a Member exceeds its risk limit, the amount exceeding the limit shall be multiplied gradually by the coefficients specified in the Procedure and the total amount obtained thereof shall be fullfilled at the extra-margin accounts in which liabilities arising as a result of margin calculations are followed. Orders entry from all accounts of the Member who fails to provide the additional margin within the time specified in the Procedure as result of all positions taken by the Member for itself and its customers, all accounts of the Member shall be blocked to submit order regardless of whether the extra margin account collateral adequacy is sufficient. Order entry is allowed again if the ratio of "required collateral based on the risk limit calculations" to the "allocated risk limit to the member" falls below the level specified in the Procedure.
Profit / loss calculation ARTICLE 25- (1) Profit /loss calculations of the positions resulting from the transactions conducted in the Market are performed by Takasbank. The calculations are reported to the Members through Takasbank software. The principles for the calculation of profit or loss are specified in the Procedure.	Profit / loss calculation ARTICLE 25- (1) Profit /loss calculations of the positions resulting from the transactions conducted in the Market are performed by Takasbank. The calculations are reported to the Members through clearing system. The principles for the calculation of profit or loss are specified in the Procedure.

Transferring the profit or loss amounts to the accounts	Transferring the profit or loss amounts to the accounts
ARTICLE 26 - (2) After session close, the end-of-day settlement prices for the futures and option contracts are determined and all accounts are updated. For the accounts whose total collateral amount fell below the maintenance level, "a margin call" shall be issued by sending messages and making reporting to the customer screens provided by Takasbank in accordance with the principles stipulated in article 32. The deadlines for the fulfillment of the margin call obligations of the members are determined in the Procedure.	ARTICLE 26- (2) After session close, the end-of-day settlement prices for th futures and option contracts are determined and all accounts are updated. For th accounts whose total collateral amount fell below the required level , "a margicall" shall be issued by sending messages or making reporting to the custome screens provided by Takasbank in accordance with the principles stipulated i article 32. The deadlines for the fulfillment of the margin call obligations of the members are determined in the Procedure.
Assets that could be accepted as transaction collateral	Assets that could be accepted as transaction collateral
ARTICLE 42 - (1) The following assets can be used by the Members for the fulfillment of their margin requirements.	ARTICLE 42- (1) The following assets can be used by the Members for th fulfillment of their margin requirements.
 a) Cash in Turkish Lira, b) Convertible Foreign Currency, c) Government Domestic Debt Securities, ç) Stocks included in BIST 30 Index, d) Mutual fund participation certificates, e) Lease certificates issued by the Undersecretariat of Treasury of the Republic of Turkey, Asset Leasing Company, f) Gold in the standard traded on the Exhanges 	 a) Cash in Turkish Lira, b) Convertible Foreign Currency, c) Government Domestic Debt Securities, c) Stocks traded in Equity Market of BIAS. d) Equity umbrella fund shares e) Debt instruments umbrella fund shares f) Lease certificates issued by the Undersecretariat of Treasury of the Republic of Turkey, Asset Leasing Company, g) Gold in the standard traded on the Exhanges (3) Takasbank may not accept securities or guarantees that are related to the member due to specific correlation that may exist between the credit worthines of the member and the value of the assets it deposits as collateral, or may lim the acceptance of collateral and guarantee fund contribution. Provisions for th implementation of guarantees for assets that are linked to the credit worthines of the company are stipulated in the Procedure. (4) Adequate stocks as collateral shall be stipulated in the Procedure.
Composition of the transaction collateral and the valuation coefficients ARTICLE 29-(1) If a new position is opened in the Market then, at least 50% of the margin requirement should be comprised of cash collateral denominated in Turkish Lira. The minimum cash maintenance requirement shall not be sought when the loss amount is deducted from the loss-making accounts during the account updating process. (2) The total rate of shares and stock-intensive mutual fund collaterals in non- cash collaterals cannot exceed %50 of total non-cash collaterals; and the rate of each share or stock-intensive mutual fund participation certificate in this rate cannot exceed 20% (10% of total non-cash collaterals).	Composition of the transaction collateral and the valuation coefficients ARTICLE 29-(1) In the case of a new position is opened, at least 50% of the initia and variation margin should be comprised of cash collateral denominated in Turkish Lira. The Board of Directors is authorized to increase this rate accordin to the developments in the market. The ratios and composition limits specifies in the following table shall be applied for the other assets than Turkish Lira case to be accepted as collateral. Composition limits are applied over the sum of the deposited cash and non-cash collateral. Board of Directors is authorized to the termine composition limits for new assets to be accepted as collateral or to change composition limits including those determined by this Directive.
 (3) The following valuation coefficients are taken as the basis in the calculation of the collateral values of non-cash assets that could be accepted as transaction collateral. For the calculation and valuation of the transaction collaterals, the provisions of article 41 of the Central Clearing and Settlement Regulation shall be reserved. (4) The valuation coefficients are reviewed once in a year. The reviews, if deemed necessary, may also be made in shorter periods. If there is any change in the valuation coefficients after such reviews, the new valuation coefficients shall be 	Assets that could be accepted as transaction collateral Group Limit (% of Group Limit (% of Group Limit) (2) The valuation coefficients to be used in the calculation of the Convertible Foreign Currency (USD/EUR) Max %50 - used in the calculation of the
announced to the Members.	Securities Based) collateral values o Equities traded in Equity Market of Max %25 %20 the assets to b
	the Exchange deposited a Share umbrella fund Max %25 %50 collateral shall b
	Debt instruments umbrella fund Max %25 %50 defined in th
	Lease certificates issued by the Undersecretariat of Treasury of the Republic of Turkey, Asset Leasing Company Max %50 %20 (ISIN Based) Procedure. The valuation coefficient are regular
	Gold in the standard traded on the Max %25 - once a year.
	Exhanges necessary, th coefficients are updated more than once a year and members are notified. (3) Parametric, non-parametric or simulation-based statistical methods that ar deemed appropriate by Takasbank are used in the calculation of valuation coefficients. In determining the collateral valuation coefficients, the credit risk valuation, volatility, liquidity and currency risk of the related asset evaluated by
	Takasbank are taken into consideration.

	 (4) The statistical confidence level to be used in the calculations can not be less than 99.75%, and the liquidity duration to be used can not be less than 2 working days. It is the fact that the historical data to be used in calculations is not less than 1 year. Valuation coefficients for assets where there is not enough historical data are determined by comparing the coefficients calculated for assets with similar features. (5) Group limits are calculated on the total deposited collateral. While calculating evaluated collateral after the sub-group limits, total evaluated value that the relevant group limit applied is taken into consideration. (6) Assets that are accepted as collateral are assessed with current market prices and evaluated by the prices determined by Takasbank at the risk calculation time, collateral deposit and withdrawal transactions at the end of each transaction day. Details on collateral evaluation are explained in the Procedure.
Collateral management and monitoring ARTICLE 31: (1) In the Market, gross margining method is employed. Collateral monitored in the accounts associated with single customer positions can be used neither for closing collateral deficit arising from the accounts belonging to the Member's own portfolio or other customer accounts nor for resolving the default.	Collateral management and monitoring ARTICLE 31: (1) In the Market, investor-based gross margining method is employed. For the positions of the individual accounts, portfolio-based net margining is applied. Collateral monitored in the accounts associated with single customer positions can be used neither for closing collateral deficit arising from the accounts belonging to the Member's own portfolio or other customer accounts nor for resolving the default.
Margin Call ARTICLE 32- (1) When the collateral amount falls below the maintenance level or TRY cash deficiency, a margin call shall be made.	Margin Call ARTICLE 32- (1) When the collateral amount falls below the margin requirement level or the member has TRY cash deficiency, a margin call shall be made.
(3) The margin call shall be issued by sending messages and making reporting to the customer screens provided by Takasbank. If the margin call is sent through the system, the Member shall be deemed to have received the call without any further notice and information. The responsibility of the Member shall begin at the moment the margin call made by Takasbank is received by the Member.	(3) The margin call shall be issued by sending messages or making reporting to the customer screens provided by Takasbank. If the margin call is sent through the system, the Member shall be deemed to have received the call without any further notice and information. The responsibility of the Member shall begin at the moment the margin call made by Takasbank is received by the Member.
(4) The accounts that bear a margin call or are in default can only be taken out of margin call or default status either by depositing cash colletaral or conducting transactions that would reduce the margin requirement value. However, those accounts whose cash collateral account has a negative balance can only be taken out from the default status by depositing cash.	4) The accounts that bear a margin call or are in default can only be taken out of margin call or default status either by depositing colletaral or conducting transactions that would reduce the margin requirement value. Those accounts whose cash collateral account has a negative balance can only be taken out from the default status by depositing cash.
Cuerentes Fund	Cuerentee Fund
 Guarantee Fund ARTICLE 34 - (1) A Guarantee Fund shall be established in the Market where the central counterparty service is provided in order to cover the losses that cannot be covered by collaterals of the defaulting Members. All Members are required to participate to the Guarantee Fund. (2) The contribution amounts to be deposited by the Members to the guarantee fund should be met from the assets under their ownership. 	Guarantee Fund ARTICLE 34 - (1) Within the scope of the CCP service to be provided in the Market, Takasbank establishes a guarantee fund which is formed by the contributions of the members to be used for the amount exceeding the collaterals of the members who are liable for loss in case of default. It is obligatory for CCP Members to participate in the guarantee fund. (2) The guarantee fund contribution amounts of the CCP Members are composed of the guarantee fund contribution amounts that have been deposited and to be deposited when Takasbank requested. If the Guarantee Fund is used within the framework of the provisions of the CCP Regulation, the Directive and the
 General principles regarding the Guarantee Fund ARTICLE 35 – (1) All Members are required to make contribution to the Guarantee Fund. (2) The guarantee fund contribution amounts of the Members are composed of the guarantee fund contribution amounts that have been deposited and to be deposited when requested. (3) The deposited guarantee fund contribution amounts are composed of fixed and variable guarantee fund contribution amounts. If the Guarantee Fund is used in accordance with the provisions of the Central Counterparty Regulation, the Market Directive and this Procedure, then the Members may be asked to make contribution a mount to be requested in each case cannot exceed the guarantee fund contribution amount that should have been deposited on the relevant default date. The requests for additional contribution amounts can also be made in tranches. 	 Procedure, Members of the CCP may be required to deposit additional contribution that does not exceed guarantee fund deposited. Members may be required to pay an additional contribution of up to four times during a period of one year from April 1 to March 31. The additional guarantee fund contribution that can be claimed at a time can not exceed the amount of the guarantee fund contribution that must be paid for each member, calculated for the month in which the defaults occur. The additional guarantee fund contribution amount may be requested at once in total amount or more than once in trances, provided that the amount deposited does not exceed the total amount deposited. 3) Maximum guarantee fund liability for CCP members which have requested termination of membership but whose request have not yet been approved by the Board of Directors or CCP members whose termination requests are approved by the Board but who are assigned a period to return the guarantee fund contribution sum whose guarantee fun contribution is not subject to an ongoing default process during the date of the request is twice of that of the amount of the sum of the guarantee fund contribution that request is made. If there is an ongoing default

 (4) No recourse to the guarantee fund contributions of other Members can be made unless the collaterals of the defaulting Member, its guarantee fund contribution and the capital allocation made by Takasbank for the risks assumed in the Market become inadequate. (5) In the case of termination of the membership, the guarantee fund contribution shall be refunded within the framework of Article 33 of the Central Counterparty Procedure. (6) Guarantee fund is represented and administered by Takasbank. (7) The assets in the Guarantee Fund cannot be used other than for their intended purpose. 	 process then the sum is triple of that amount. Takasbank may reject the membership requests by ex-members considered to have requested to cancel their memberships in order to evade possible guarantee fund liabilities. (4) It can not be applied to the guarantee funds of the other members unless the defaulted member has insufficient margin collaterals, guarantee fund contributions, compensation from insurance policies, and capital allocation for covered risks in the market made by Takasbank. (5) In the case of cease to be member, the guarantee fund contribution shall be refunded within the framework 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) It is a principle that the guarantee contributions to be deposited by members shall be met from the assets of their own property. (8) Guarantee fund is represented and administered by Takasbank.
General principles of the Guarantee Fund ARTICLE 35	The scope of this article is moved to Article 34.
Size of the Guarantee Fund and the Contribution Amounts made by the Members	Size of the Guarantee Fund and the Contribution Amounts made by the Members
ARTICLE 36 – (1) The size of the guarantee fund cannot be less than the greater of the funding requirement that may arise as a result of the default of the Member who has the highest margin requirement and of the joint default of the Members who have the second and third highest margin requirement. This funding requirement is composed of the Members' transaction collaterals for their risks and the portion remaining out of the satisfied amount. Such risk equals to the amount of difference between the margin requirements of the Members' positions and the margin requirements calculated by using minimum 99,5% and maximum 99,9% confidence levels and the holding period to be determined through 2 to 5 business days.	ARTICLE 35 – (1) The size of the guarantee fund cannot be less than the greater of the funding requirement that may arise as a result of the default of the Member who has the highest margin requirement and of the joint default of the Members in stress scenarios who have the second and third highest margin requirement. This funding requirement is the portion remaining out of the the Members' transaction collaterals for their risks calculated within these stress scenarios. Risks calculated in stress scenarios were estimated by statistical methods with 99,75% confidence level for 2 business days holding period and historical data not less than 5 years. Takasbank may set the minimum guarantee fund liability higher than the statistically calculated amount by considering market conditions, collateral concentrations and the adequacy level of resources for default management.
(2) For the calculation of the size of the guarantee fund to be established, the margin requirements need to be maintained at the end of the day that have been realized on Member basis for minimum last one year are used.	(2) The sufficiency of the existing guarantee fund is tested by renewing calculation of the total size of the guarantee fund within a period not be more than three months.
 (3) Calculation of the total size of the guarantee fund is renewed, provided that it shall not be less than three months, and the sufficiency of the existing guarantee fund is tested. (4) The deposited guarantee fund contribution amount of a Member cannot be less than the fixed contribution amount. The fixed contribution amounts required to be deposited by the Members are defined in the Procedure. This amount is reviewed at least once a year by taking the developments in the market, national and international economy into consideration; and it may be 	 (3) The contributions of the members to the guarantee fund is comprised of fixed portions and variable contributions calculated in proportion to the risk they bear. (4) The fixed amount contribution is determined on the level less than the average amount of the guarantee fund size per member and announced in the Procedure.
changed if deemed necessary. (5) The guarantee fund risk amount calculated by multiplying the maximum collateral amounts required to be maintained by the members in the last 3 months with a risk coefficient specified in accordance with the principles specified in the first paragraph is used for the calculation of the guarantee fund contribution amount required to be deposited by each member. The guarantee fund requirement of each member shall be equal to the fixed contribution amount; and if not; it shall be equal to the upper limit of the bracket that the risk amount falls into. The guarantee fund risk coefficient can be changed by Takasbank, as to be valid either for all members or for particular members, by taking the market developments and the actual default and risk status into consideration.	(5) The variable contribution is calculated by considering the average amount of collateral that the Member must deposit for the market operations. It is announced via member screens.
(6) The Guarantee Fund contribution amount obligations are calculated on the last business day of each month and updated as of the first business day of the	(6) The deposited guarantee fund contribution of a member can not be less than the fixed portion.
following month. (7) The guarantee fund contribution amount calculations of the members can also be performed by Takasbank, without waiting for the first business day of the following month, by taking the risk status of the relevant Members and the Market conditions into account.	 (7) The length of the data set to be used in the calculation of the size of the guarantee fund in total and in determining the average participation amount of member, which is the basis for the variable contribution of the members, is explained in the Procedure. (8) The Guarantee Fund contribution liabilities are calculated on the first business day of each month and are updated on the following business day. In the period determined in the procedure, the amount of the collateral evaluated

	for the guarantee fund contribution amount reflected to the accounts on Takasbank must be deposited. Default provisions apply for the amounts not deposited. (9) Members' guarantee fund contribution calculations can be made by Takasbank before the first business day of the month according to risk situation of the related members and market conditions.
Eligible Assets for the Guarantee Fund contribution amount ARTICLE 36 (3) The statistical confidence level to be used in the calculations can not be less than 99%, and the duration of liquidating can not be less than 2 business days. It is the fact that the historical data to be used in calculations is not less than 1 year. (6) At least 30% of the total contribution amount required to be maintained must be in the form of cash Turkish Lira.	 Eligible Assets for the Guarantee Fund contribution amount ARTICLE 36 (3) The statistical confidence level to be used in the calculations can not be less than 99.75%, and the duration of liquidating can not be less than 2 business days. It is the fact that the historical data to be used in haircut calculations is not less than 1 year. (6) At least 30% of the total contribution amount required to be maintained must be in the form of cash Turkish Lira. The calculation of composition limit for non-cash collateral is made over the total deposited contribution. (8) Non cash assets that are used as Guarantee Fund contribution are valued with the current market prices and evaluated by the prices determined by Takasbank. (9) For the accounts that have a contribution deficit as a result of the end-of- day valuation, a call for contribution completion is made. Contributions must be completed by the end of the period specified in the Procedure. For incomplete amounts, default provisions apply. Takasbank can also seek contribution by intraday evaluating. (10) Non-cash assets in the Guarantee Fund can be exchanged in the direction of the request of the Member.
Guarantee Fund Usage Principles ARTICLE 38 (8) The total contribution amount that may be requested from any Member in one month due to the default of another member cannot exceed the aggregate of the Member's deposited guarantee fund contribution amount obligation calculated for the respective month and its additional guarantee fund contribution amount obligation, if requested. The total additional guarantee fund contribution amount to be requested in a month's time cannot exceed the deposited guarantee fund contribution amount of the member. The Members may be asked to make contribution at most four times during the period that will elapse from the beginning of April of each year to the end of March of the next year.	Guarantee Fund Usage Principles ARTICLE 37 (8) The total contribution amount that may be requested from any Member in one month due to the default of another member cannot exceed the aggregate of the Member's deposited guarantee fund contribution amount obligation calculated for the respective month and its additional guarantee fund contribution amount obligation, if requested.
(9) If the additional guarantee fund contribution amounts requested from the members due to the default are used either in part or in whole, then the members shall be asked to restore their guarantee fund obligation to the level being calculated pursuant to the item (d) of the first paragraph of article 36 of the Central Counterparty Regulation. However; the guarantee fund contribution amounts exceeding the maximum loss threshold that any Member would assume in the same month in case of default of another member shall be used only in the event of such Member's own default until the end of the month.	(9) If the additional guarantee fund contribution amounts requested from the members due to the default are used either in part or in whole; then the members shall be asked to restore their guarantee fund obligation to the level being calculated pursuant to the article 35. The guarantee fund contribution amounts exceeding the maximum loss threshold that any Member would assume in the same month in case of default of another member shall be used only in the event of such Member's own default until the end of the month. Until the end of the one year period in which the guarantee fund contribution amounts to be claimed from the members fulfilling the maximum additional guarantee fund contribution obligation within the one year period from April 1 to March 31 are used for their own defaults.
Guarantee Fund contribution amount replenishment obligation ARTICLE 39 (1) In case the guarantee fund each cash or non-cash contribution amount of any Member falls below 90% of the amount required to be deposited by that Member, then a call for the replenishment of the guarantee fund contribution amount shall bemade to the member. The call for the replenishment of the guarantee fund contribution amount shall be issued by sending messages and making reporting to the customer screens provided by Takasbank. If the call for the replenishment of the Guarantee Fund Contribution Amount is made through the system, the Member shall be deemed to have received the call without any further notice and information. The responsibility of the Member shall begin at the moment the call for the replenishment of the Guarantee Fund Contribution Amount issued by Takasbank is received by the Member. The call for replenishment shall be fulfilled by the Member within 3 business days. If such call is failed to be fulfilled within its time period, then the Member shall be deemed to have defaulted.	article is omitted
Accrual of interest on cash contribution amounts in the Guarantee Fund ARTICLE 40	Accrual of interest on cash contribution amounts in the Guarantee Fund ARTICLE 38

Default ARTICLE 41 (1) (b) For contracts subject to physical delivery , failure to fulfill the settlement obligations within the time defined in Procedure ;	Default ARTICLE 39 (1) (b) For contracts subject to physical delivery where the CCP service is not provided for the underlying spot market, failure to fulfill the settlement obligations within the time defined in Procedure ;	
(3) Takasbank may grant time to the Member to terminate its default status, at most, until the end of the next business day of the date of default. The provisions of article 43 shall be applied to the Member who have failed to terminate its default status within the given time period.	 (3) Takasbank may grant time to the Member to terminate its default status, at most, until the end of the next business day of the date of default. The provisions of article 41 shall be applied to the Member who have failed to terminate its default status within the given time period. (4) For contracts subject to physical delivery where the underlying spot market with CCP service and positions are created in related markets and collateralized until the end of the physical delivery period. In the event of default, related underlying spot market's default management rules apply. 	
Default on Physical Delivery	Default on Physical Delivery	
ARTICLE 42 (4) If no cash claim is made, then Takasbank shall use its best endeavors to supply the undelivered portion from the market in accordance with the principles related to the default management process specified in article 43. The transaction costs incurred by Takasbank during the supply of the asset from the market shall be collected from the membership collateral of the defaulting Member.	ARTICLE 40 (4) If no cash claim is made, then Takasbank shall use its best endeavors to supply the undelivered portion from the market in accordance with the principles related to the default management process specified in article 41 . The transaction costs incurred by Takasbank during the supply of the asset from the market shall be collected from the membership collateral of the defaulting Member.	
 (5) In case of failure to supply the asset within five business days after the settlement date, then the price of the undelivered portion shall be paid to the recipient of the physical delivery. In the calculation of the payment amount, price is calculated according to the valuation principles stated in Procedure. (6) In case of any default in the physical delivery; a default interest shall be applied to the defaulting member within the scope of article 44. The remaining amount is paid, after the amount determined by Takasbank and the Takasbank commission approved by the Board is deducted from the amount calculated for the undelivered portion in accordance with article 44, to the recipient of the physical delivery for the time period to be lapsed for the complete fulfillment of the physical delivery or until the liquidation of the physical delivery debt by cash payment. 	 (5) In case of failure to supply the asset within two business days after the settlement date, then the price of the undelivered portion shall be paid to the recipient of the physical delivery. In the calculation of the payment amount, price is calculated according to the valuation principles stated in Procedure. (6) For contracts subject to physical delivery where the underlying spot market with non CCP service, in case of any default in the physical delivery; a default interest shall be applied to the defaulting member within the scope of article 42. The remaining amount is paid, after the amount determined by Takasbank and the Takasbank commission approved by the Board is deducted from the amount calculated for the undelivered portion in accordance with article 42, to the recipient of the physical delivery for the time period to be lapsed for the complete fulfillment of the physical delivery or until the liquidation of the physical delivery debt by cash payment. 	
(7) If the receivable of the recipient of the physical delivery is paid by Takasbank in cash, then the debt of the debtor of the physical delivery shall also be turned into cash. When the debt of the physical delivery is turned into cash, then the debtor of the physical delivery shall be liable to pay such cash amount together with its default interest to be calculated pursuant to article 44.	(7) If the receivable of the recipient of the physical delivery is paid by Takasbank in cash, then the debt of the debtor of the physical delivery shall also be turned into cash. When the debt of the physical delivery is turned into cash, then the debtor of the physical delivery shall be liable to pay such cash amount together with its default interest to be calculated pursuant to article 42 .	
Default management process	Default management process	
ARTICLE 43 Default interest	ARTICLE 41 Default interest	
ARTICLE 44 (2) The Member, who has been defaulted as a result of the contracts subject to the physical delivery, shall be charged a default interest over the value of the asset on the settlement date for the time period lapsing from the settlement date to EFT closing time, to be calculated at the rate of 50% of the highest among the weighted average overnight interest rates occurred in the repo-reverse repo markets where government securities are traded, CBRT Interbank Money Market or Takasbank Money Market, that have been formed by the Exchange. For the default amounts that have been closed on the settlement date after EFT closing time, a default interest at the rate of the double of the highest of the foregoing shall be applied.	ARTICLE 42 (2) For contracts subject to physical delivery where the underlying spot market with non CCP service ,the Member, who has been defaulted as a result of the these contracts, shall be charged a default interest over the value of the asset on the settlement date for the time period lapsing from the settlement date to EFT closing time, to be calculated at the rate of 50% of the highest among the weighted average overnight interest rates occurred in the repo-reverse repo markets where government securities are traded, CBRT Interbank Money Market or Takasbank Money Market, that have been formed by the Exchange. For the default amounts that have been closed on the settlement date after EFT closing time, a default interest at the rate of the double of the highest of the foregoing shall be applied.	
Currency ARTICLE 45	Currency ARTICLE 43	
Fees and Commissions ARTICLE 46	Fees and Commissions ARTICLE 44	
Disciplinary Provisions ARTICLE 47	Disciplinary Provisions ARTICLE 45	
Measures to be taken in extraordinary situations ARTICLE 48	Measures to be taken in extraordinary situations ARTICLE 46	
Provisions to be applied in cases where there are no provisions in the directive ARTICLE 49	Provisions to be applied in cases where there are no provisions in the directive ARTICLE 47	
Principles Relating to the Clearing and Settlement Membership TEMPORARY ARTICLE 1 - (1) For the transactions to be conducted in the Market until 01.07.2015, the principles for the direct clearing membership shall be applied.	Temporary Provisions ARTICLE 1 –(1) The risk limit principals in Article 24 of this Directive shall enter into force on the date announced by the Takasbank.	
(2) The terms related to the license specified in the items (a) of the first and second paragraphs of article 8 of this Procedure regulating the conditions of	(2) As of the date when CCP service begins to be provided by Takasbank on the Exchange Equity Market, settlement is guaranteed for physically delivered equity	

Membership and the relevant terms thereof shall enter into force after the end	contracts. Until then, the principles related to the Exchange Equity Market shall
of the time-period specified in the Temporary Article 2 of the Communiqué on	be applied as the principles of default and compensations related to the physical
Principles Regarding Investment Services and Ancillary Services of the Board	delivery of underlying stocks.
published in the Official Gazette dated 11.07.2013 and numbered 28704. Until	
such time; the investment institutions having the certificate of authorization for	
the derivative instruments can make an application for direct clearing and	
settlement membership, provided, however, that other conditions have been	
met.	
(3) The investment institutions, who failed to fulfill the obligation related to	
minimum equity capital specified in the item (c) of the first paragraph of article	
8 as of the date the Directive enters into force, can perform the settlement and	
clearing operations of their own customers until 01.07.2015 by depositing the	
amount to be obtained by multiplying the rate of the difference between their	
existing equity and determined minimum equity amount to the determined	
minimum equity with the guarantee fund contribution amount specified in the	
seventh paragraph of article 52, as an additional collateral among the types	
referred to in article 42, within one month after the enforcement date of the	
Directive, provided that other conditions have been met. The institutions who	
failed to fulfill such minimum equity capital requirement until 01.07.2015 cannot	
carry out the clearing and settlement operations after the said date. The	
collaterals received in this way shall constitute the transaction collateral of the	
Member.	
(4) The Members can provide guarantee letters up to 25% of their	
Guarantee Fund contribution amount requirements until the end of the first year	
following the enforcement date of the Directive. With the enforcement date of	
the Directive no new guarantee letters other than those that are already given	
as guarantee fund contribution amont shall be accepted, and the given	
guarantee letters would lose their function as the guarantee fund contribution	
fund at the end of the first year following the enforcement date of the Directive.	
The Members must substitute such guarantee letters with other collaterals	
within this period of time.	
Enforcement ARTICLE 51	Enforcement ARTICLE 48
Execution ARTICLE 52	Execution ARTICLE 49

* The Turkish text shall prevail.