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	Approved By	General Manager	



# BORSA İSTANBUL A.Ş.

## **DERIVATIVES MARKET PROCEDURE**

## İSTANBUL - 2017

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## **INDEX**

SECTION ONE	7
GENERAL PRINCIPLES	7
1. Scope	7
2. Purpose	
3. Legal Basis	
<ol> <li>Definitions and abbreviations</li> </ol>	
SECTION TWO	
PRINCIPLES REGARDING THE CONTRACTS	
5. General Principles for Contracts	9
5.1. Contracts	
5.2. Bindingness of the contracts	
5.3. Contract codes	
6. Flexible Contracts	
7. Contracts that are Traded at Evening Session	11
SECTION THREE	11
PRINCIPLES REGARDING TRADES	
8. Sub-markets	
9. Daily workflow	
9.1. Non-trading period	
9.2. Opening Session	
9.3. Normal Session	
9.4. Announcement of the settlement prices	
9.5. Evening Session	
9.6. End-of-day operations	
10. Trading hours	
11. Differentiation of trading day section	
12. Trading methods	
13. Trade reporting	
13.1. One-sided trade reporting	
13.2. Two-sided trade reporting	
14. Partitioning	
15. Closing of Market and Sub-markets 16. Suspension of trading in a contract	
16.1. Trading halt After Market-Wide Circuit Breaker System Activation	
17. Permanent termination of trading in the contracts	
18. Notification and announcement of trades	
19. Trade cancellation	
SECTION FOUR	
PRINCIPLES REGARDING ORDERS	17
20. Provisions regarding market access	17
20.1. Protocols used for market access	17
20.2. Provisions regarding algorithmic order transmission systems	18
21. Priority rules in matching	19
22. Order methods	19
23. Order validity	
24. Intermonth Strategy Orders	
25. Stop orders	
26. Priciples Regarding the Orders for the Evening Session	
27. Principles Regarding Orders in Opening Session	22

28. Special Conditions Regarding Physically Delivered Currency Futures and Options Contracts	
30. Minimum Maximum Order Quantities	
31. Order amendment	
32. Order inactivation	
33. Order cancellation	
34. Pre-trade risk management	. 25
SECTION FIVE	. 25
PRINCIPLES REGARDING COMMITTEES AND THEIR FUNCTIONS	. 25
35. Settlement price committee	25
36. Operating principles of the settlement price committee	
37. Determination of the daily and expiry date settlement price by the committee	
38. Obligations of the settlement price committee members	
39. Corporate actions and corporate actions committee	. 26
40. Operating principles of the corporate actions committee	. 27
41. Determination of the changes following corporate actions by the committee	
42. Obligations of the committee members	. 27
SECTION SIX	. 28
PRINCIPLES ON SPECIAL APPLICATIONS	. 28
43. General provisions on market making	28
44. Market maker application conditions and documents to be issued to the Exchange	
45. Market making program	
45.1. General operating principles	
45.2. Obligations of market makers	
45.3. Rights of market makers	
45.4. Exceptional situations in program	. 31
45.5. Market maker performance assessment	. 31
45.6. Revenue Sharing	. 32
45.7. Exchange Fee Discount	
45.8. The users allocated to Market Makers	
45.9. Program duration	
46. Cancellation of Market Making Authorization	
SECTION SEVEN	. 33
PRINCIPLES REGARDING CORPORATE ACTIONS	. 33
47. Corporate Actions Adjustments	
SECTION EIGHT	. 35
EXTRAORDINARY CIRCUMSTANCES	
48. Procedure of extraordinary circumstances	
49. Changing daily price limits	
50. Cancellation of Pending Orders by Phone or E-mail	. 37
SECTION NINE	. 38
OTHER PROVISIONS	
51. Powers of the Exchange	
52. Clearing house	
53. Exchange fee and other charges	
54. Data Dissemination	
55. Bulletin and Reports 56. Circumstances for Which There Is No Provision	
JU. CITCUTTS COLUCE TO ENTITE LE 12 INDE LOUISION	. 37

57	. Repealed Regulations	. 39
58	. Enforcement	. 39
59	. Execution	. 40
60	. Revisions	. 40
APPE	NDIX-1: CONTRACT SPECIFICATIONS OF BORSA İSTANBUL DERIVATIVES MARKET	. 41
Α.	Single Stock Option Contract	. 41
В.	Single Stock Futures Contract	. 43
C.	BIST 30 Options Contract	
D.	BIST 30 Futures Contract	
Ε.	BIST Liquid Banks Futures Contract	
F.	BIST Liquid 10 Ex Banks Futures Contract	
G.	BIST Sustainability 25 Futures Contract	
Н.	Physically Delivered USD/TRY Option Contracts	
١.	USD/TRY Options Contract	
J.	Physically Delivered USD/TRY Futures Contracts	
К.	USD/TRY Futures Contract	
L.	EUR/TRY Futures Contract	
M.		
Ν.	RUB/TRY Futures Contract	. 65
0.	CNH/TRY Futures Contract	
Ρ.	GBP/USD Futures Contract	. 68
Q.	Gold Futures Contract	
R.	USD/Ounce Gold Futures Contract	
S.	USD/Ounce Silver Futures Contracts	
Т.	USD/Ounce Platinum Futures Contract	
U.	USD/Ounce Palladium Futures Contract	
۷.	USD/Tonne Copper Futures Contract	
W.		
Х.	Quarterly Base-Load Electricity Futures Contract	
Υ.	Base-Load Electricity Futures Contract	
Ζ.	SASX 10 Index Futures Contract	. 85
AA	. 1 Month TLREF Futures Contract	. 87
BB	. Physically Delivered Government Bond Futures Contract	. 89
APPE	NDIX-2: MARKET DEFINITION LIST	. 91
	NDIX-3: EXPLANATIONS ON TRADING DAY SECTIONS AND VIOP'S TRADING AND DAILY WORKFLO	
APPE	NDIX-4: RULES FOR TRADE REPORTING APPROVAL	100
APPE	NDIX-5: TARIFF ON EXCHANGE FEE AND OTHER CHARGES	101
APPE	NDIX-6: PRE-TRADE RISK MANAGEMENT	102
APPE	NDIX-7: EXAMPLES AND CALCULATION METHOD REGARDING CORPORATE ACTIONS	115
	NDIX-8: DERIVATIVES MARKET MARKET MAKER COMMITMENT LETTER	
	NDIX 9: MARKET MAKER APPLICATION FORM	
	NDIX -10: NORMAL SESSION OBLIGATIONS OF MARKET MAKERS	
	NDIX -11: NORMAL SESSION RIGHTS OF MARKET MAKERS	
	NDIX-12: EVENING SESSION OBLIGATIONS OF MARKET MAKERS	
	NDIX-13: EVENING SESSION RIGHTS OF MARKET MAKERS NDIX-14: DAILY PRICE LIMITS IN OPTION CONTRACTS	
	NDIX-14: DAILY PRICE LIMITS IN OPTION CONTRACTS	
ALLE		- 52

APPENDIX-16: BORSA İSTANBUL A.Ş. ALGORITHMIC ORDER TRANSMISSOIN SYSTEMS LETTER	
APPENDIX-17: EXPLANATIONS AND EXAMPLES REGARDING INTERMONTH STRATEGY ORD	ERS 156
APPENDIX-18: SINGLE PRICE METHOD EXAMPLES	160
APPENDIX-19: BORSA İSTANBUL A.Ş. DERIVATIVES MARKET PROCEDURE REVISION	COMPARISON
TABLE	163



## **TABLES**

TABLE 1: CODE FOR FUTURES CONTRACTS	9
TABLE 2: CODE FOR OPTIONS CONTRACTS	9
Table 3: Code For Intermonth Strategy Order	10
TABLE 4: CODE FOR FLEXIBLE OPTION CONTRACTS	10
TABLE 5: CODE FOR FLEXIBLE FUTURE CONTRACTS	10
TABLE 6: PRICE CHANGE CALCULATED FROM REFERENCE PRICE.	16
TABLE 7: MINIMUM AND MAXIMUM ORDER QUANTITIES	22
TABLE 8: AMENDMENT ALLOWED ON ORDERS AND TIME PRIORITY	23
TABLE 9: AMENDMENT ALLOWED ON INACTIVATED STOP ORDERS AND TIME PRIORITY	24
TABLE 10: RESPONSIBLE CONTRACTS AND ADDITIONAL RESPONSIBLE CONTRACTS	30

## BORSA İSTANBUL A.Ş. DERIVATIVES MARKET PROCEDURE

#### SECTION ONE GENERAL PRINCIPLES

#### 1. Scope

The purpose of this Implementing Procedures and Principles is to regulate rules and principles of operation of Borsa İstanbul A.Ş. Derivatives Market.

#### 2. Purpose

These Procedures and Principles regulates principles for trading, launching and terminating trading of futures and option contracts and other derivatives, corporate actions, market making and activities of committees.

#### 3. Legal Basis

These Procedures and Principles are issued pursuant to Borsa İstanbulA.Ş. Derivatives Market Directive.

#### 4. Definitions and abbreviations

The terms in these Procedures and Principles shall mean the below;

a) Open Position: Positions which are formed by the market transactions or the methods specified in the Clearing Legislation and which are not closed by reverse transaction, cash settlement, physical delivery or methods specified in the Clearing Legislation,

b) Algorithmic Order Transmission Systems: Systems which generate buy-sell orders by using algorithms that are formed by several softwares, without any human intervention, depending on a rules set that has predefined parameters,

c) Exchange: Borsa İstanbul A.Ş.,

ç) Regulation: Borsa İstanbul A.Ş. Regulation on Principles Relating to Exchange Activities dated 19/10/2014 and numbered 29150,

d) Underlying Asset: Capital market contract, goods, value, economic or financial indicator, commodity or notes which are the subjects of buy/sell issue (right or obligation) through the contract,

e) Co-location: A data center service offered to data broadcasting organizations, service providers, market members and customers to speed up the transmission of orders and data distrubition within the specified standards in the closest manner to the System,

f) General Manager: General Manager of the Exchange,

g) General Management: General Manager of Borsa İstanbul A.Ş. or related Deputy General Manager,

ğ) Law: Capital Markets Law no. 6362 dated 6/12/2012,

h) KAP, Public Disclosure Platform: The system defined in sub-paragraph (k) of the first paragraph of Article 3 of the Law,

1) Short position: The position that gives the owner an obligation; for futures contracts to sell the underlying asset with the agreed price and quantity or to provide cash settlement at expiry, for call options to sell underlying asset at the price and quantity agreed in the contract or to provide cash settlement at/till expiry, for put options to buy the underlying asset with the agreed price and quantity or to provide cash settlement at/till expiry,

i) Board: Capital Markets Board,

j) Option premium: The amount paid by the buyer to the seller of an option contract for the rights granted by the contract,

k) Option contract: The contract that gives the holder the right, but not the obligation, to buy or to sell an underlying asset at a specified price on a predetermined date and gives the seller the obligation to buy or to sell an underlying asset against the option premium that is earned,

1) Corporate Actions: Circumstances that affect share value and/or share amount of a corporation such as dividend payments, increase of capital through rights or bonus issues, decrease of capital, corporation mergers and divisions by means of acquisition or transfer, and equity trades between equity groups of the corporation,

m) Sub-market: The electronic trading environments created on the Derivatives Market trading system according to types, operations principles or other specifications of the contracts,

n) Market, VİOP: Borsa İstanbul A.Ş. Derivatives Market,

o) Market member: Companies authorized to trade within the framework of Article 24 of Regulation on Principles of Foundation, Activities, Operations and Audit of Exchanges and Market Operators dated 19/7/2013 and numbered 28712,

ö) Session: The period of time that the contracts are traded within Market,

p) Capital market contracts: The capital market contracts defined in the sub-paragrah (ş) of the first paragraph of Article 3 of the Law,

r) System: Derivatives Market Trading System,

s) Contract: Futures and option contracts and other derivatives,

ş) Instrument group: The set of all the call options or put options or futures contracts defined by the Exchange,

t) Instrument class: The definiton that involves the information on the instrument type and underlying asset and the other information belonging the contracts traded on the Market,

u) Instrument type: The definition that involves the information related to sub-market and instrument group,

ü) Clearing house: The central institutions established within the Exchange or assigned by the Exchange as a clearing house by the Board of Directors upon approval of the Board in order to carry out the clearing of trades executed in the Market,

v) Clearing legislation: General Regulation on the Establishment and Operating Principles of Central Clearing and Settlement Institutions dated 30/5/2013 and numbered 28662, İstanbul Settlement and Custody Bank Incorporation Central Clearing and Settlement Regulation dated 18/7/2013 and numbered 28711 and İstanbul Settlement and Custody Bank Incorporation Central Counterparty Regulation and directive, procedures and other regulations issued by the Clearing house,

y) CBRT: Central Bank of the Republic of Türkiye,

z) Offsetting trade: Closing a position by taking short position against a long or by taking long position against short in the same contract,

aa) Derivatives: Derivatives considered in the sub-paragraph (u) of Article 3 of the Law,

ab) Settlement Price: The price used for marking to the market of accounts and for cash settlement or physical delivery,

ac) Long position: The position that gives the owner an obligation; for futures contract to buy the underlying asset with the agreed price and quantity or to provide cash settlement at expiry, for call options to buy the underlying asset at the price and quantity agreed in the contract or to provide cash settlement at/till expiry, for put options to sell the underlying asset with the agreed price and quantity or to provide cash settlement at/till expiry,

aç) Futures contract: The contract that gives obligation to buy or sell an underlying asset at a predetermined price and quantity, at a certain future date,

ad) Directive: Borsa İstanbul A.Ş. Derivatives Market Directive,

ae) Board of Directors: Borsa İstanbul A.Ş. Board of Directors. af) HFT Users: Users who have the potential to enter and process a large number of orders and trades at high frequency using algorithmic order entry/transmission systems.

## SECTION TWO PRINCIPLES REGARDING THE CONTRACTS

# **5. General Principles for Contracts 5.1. Contracts**

Contracts to be traded at VIOP and their specifications are announced with this Implementing Procedures and Principles.

Contract specifications can be found at <u>Appendix-1</u>.

## **5.2. Bindingness of the contracts**

According to Article 6 of Directive, specifications of the traded contracts bind both parties of the transaction without any further notice.

## **5.3.** Contract codes

Every contract has a contract code in the System. In addition to the codes that are stated below, additional information according the type of the contract can be added.

For Futures Contracts, the contract code includes information on instrument group, settlement code if required, underlying asset, contract size and expiration date.

 Table 1: Code For Futures Contracts

Code	Explanation
F_	Instrument group (Futures)
P_	Settlement code (P:Physical delivery)
XAUTRY	Underlying asset code
М	Contract code regarding the contract size
_	Contract Month separator for Physically Delivered Government Bond Futures
	Contracts
0317	Expiration date (Ex. March 2017)

For Option Contracts, the contract code includes information on instrument group, settlement code if required, underlying asset, contract size, exercise style, expiration date, option class and strike price.

Code	Explanation
0_	Instrument group (Options)
P_	Settlement code (P: Physical delivery)
XU030	Underlying asset code
Е	Exercise style (A: American-The contractual right can be used on any date until or on expiry date, E: European-The contractual right can be used on expiry date)
0417	Expiration date (Ex. April 2017)
С	Option class (C: Call option P: Put option)

## Table 2: Code For Options Contracts

#### 1240.00 Strike price

Single Stock Futures and Options contracts subject to corporate action adjustments may have different contract specifications than standart contracts. Contract codes may have additional information such as N1, N2, N3 etc. indicating that the contract is non standart.

Intermonth strategy orders shall be sent to the System with strategy order codes determined as in the below instead of the contract codes.

#### **Table 3: Code For Intermonth Strategy Order**

Code	Explanation
F_	Contract group to compose the intermonth strategy order (Futures)
XU030	Underlying asset code
M2-M1	Contract months included in the strategy (M1:nearest contract month - M2: second
	nearest contract month)

Flexible contracts which are created by Exchange members by altering expiry day and/or strike price parameters of existing contracts with predefined constrains, are coded as follows:

Code	Explanation
TM_O_	Flexible Option Contract
P_	Settlement code (P: Physical delivery)
XU030	Underlying Asset Code
E	Exercise style (A: American-The contractual right can be used on any date
	until or on expiry date, E: European-The contractual right can be used on
	expiry date)
250419	Expiration Date (Ex. 25 April 2019)
С	Option class (C: Call option P: Put option)
1235.00	Strike Price

**Table 4: Code For Flexible Option Contracts** 

Flexible future contracts which are created by Exchange members altering expiry day parameter of existing contracts with predefined limits set by the Exchange are coded as follows: T

Code	Explanation
TM_F_	Flexible Future Contract
P_	Settlement code (P: Physical delivery)
USDTRY	Underlying Asset Code
261020	Expiration date (Ex. 26 October 2020)

Flexible contract codes, subjected to corporate action adjustment, may have additional information such as N1, N2, N3 etc. indicating that the contract is non standart.

#### 6. Flexible Contracts

Flexible option and/or future contracts can be created through an existing contract by trading workstation (TW) users authorized as broker/chief broker and FixAPI users in Normal Session. Expiration date and/or strike price of flexible future and/or option contratcs are defined by users within the limits defined in contract specifications (Attachment-1). Strike prices of flexible option contracts can be defined as out of standard strike price ticks for option contracts provided that being compatible with the same strike price decimal of the related instrument class.

It is not allowed to create flexible option contracts with the same expiration date and strike price of an already opened contract or flexible future contracts with the same expiration date. Expiration date and strike price, defined as flexible contract, may be determined as standart expiration date and strike price in case the necessary conditions occur. In this case participant defined flag on the series is removed but contract code and ISIN is not changed.

#### 7. Contracts that are Traded at Evening Session

Index futures (BIST 30, BIST Liquid Banks, BIST Liquid 10 Ex Banks and BIST Sustainability 25), USD/Ounce Gold futures, USD/Ounce Silver futures, USD/Ounce Palladium futures and USD/Tonne Copper futures are traded at Evening Session.

#### SECTION THREE PRINCIPLES REGARDING TRADES

#### 8. Sub-markets

The Sub-markets in the table (<u>Appendix-2</u>) are created in the System depending on the types of contracts that are traded in the Market and the trading principles. Matching of orders and trade reporting occur under the relevant Sub-market. In addition, market segments have been defined for publishing aggregate trade statistics under the relevant Sub-markets.

#### 9. Daily workflow

Daily workflow of VIOP comprises of the non-trading periods, opening session, Normal Session, announcement of the settlement price, Evening Session and end-of-day operations.

#### 9.1. Non-trading period

The period between the opening time of the trading system and the beginning of the sessions or the opening session (in case there exists) is called the "non-trading periods". During the non-trading periods, although the system is open, order entries, execution of trades or trade reporting shall not be allowed. During this periods, users may;

a) connect to the trading system,

b) make inquiries,

c) cancel "good till cancelled orders" or "good till date orders" from the previous days,

ç) reduce the quantities of the "good till cancelled" or "good till date" orders from the previous days and/or change their prices (lower price for buy orders and higher price for sell orders),d) create inactive orders to be sent to the trading system at a later time.

#### 9.2. Opening Session

Opening session is the period that orders are accepted into the system in a certain time frame without matching and at the end of this period, single price method, defined in Procedure, is applied in matching.

In the single price method; orders are sorted according to price and time priority, and the appropriate orders are matched at the price named as the equilibrium price, which ensures the

execution of the highest quantity of trades within the price levels of these orders. If there is more than one price level that ensures the execution of the highest trade quantity, the price level with the minimum remaining quantity of the orders that can match at these price levels is determined as the equilibrium price. In case there is more than one price that meets these two conditions, from the orders pending at price levels that can match the prices that meet the condition; if the total quantity of the buy orders is more than the total quantity of the sell orders, the higher price is determined as equilibrium price. If the total quantity of the sell orders is more than the total quantity of the buy orders the lowest price is determined as equilibrium price. If the total quantity of the buy orders is equal to the total quantity of the sell orders than the arithmetic average of the prices is determined as the equilibrium price. (Appendix-18) It is announced as the opening session price.

There are two periods in opening session: order collection and matching. Order collection period starts at order collection time and ends at a random time in 30 seconds after the end of order collection period. Matching period follows order collection period.

During order collection period;

- a) orders may be entered valid for opening, normal and evening sessions,
- b) price and quantity of orders can be amended, and order validity can be changed.
- c) orders can be cancelled and/or inactivated.
- ç) inactive orders can be activated and sent to the system.

#### 9.3. Normal Session

Normal Session is the main session where trades are executed based on multiple price method according to price and time priority rule. During this period, users may;

a) enter orders that can be valid for Normal Session and Evening Session,

- b) enter trade reports,
- c) amend the order quantity and price, and the validity period of orders,
- ç) cancel and/or inactivate the orders,
- d) activate the inactive orders,
- e) create flexible contracts.

#### **9.4.** Announcement of the settlement prices

Daily settlement prices are announced at the end of each trading day, and expiry date settlement prices are announced at the expiry date.

## 9.5. Evening Session

Evening Session following the Normal Session is the session where trades are executed based on multiple price method according to price and time priority rule and trades are considered as to be held at next day Normal Session trade. During this period, users may;

a) enter day orders that can be valid for Evening Session,

- b) amend quantity and price of the day order that are valid for Evening Session,
- c) cancel and/or inactivate the orders,
- ç) activate the inactive orders,

## 9.6. End-of-day operations

The end-of-day operations include the production and distribution of reports and preparation of the trading system for the next trading day.

#### **10. Trading hours**

Trading hours, trading day sections, and explanations regarding the work and operations that can or can not be made in the corresponding trading day sections in VIOP are listed in <u>Appendix-3</u>.

#### **11. Differentiation of trading day section**

Trading day sections can be differentiated based on the Sub-market and/or contract in the System. In this framework, the trading day section of the contract can be set differently from the trading day section defined in the Sub-market where the contract is traded.

#### **12. Trading methods**

Multiple price method is used in the Market, in which orders are matched continuously on the basis of price and time priority. At the opening session, orders are accepted into the system in a certain time frame without matching and at the end of this period, single price method, defined in this Procedure, is applied in matching. General Manager, if deems necessary, may decide to use a single price or different trading methods in the whole or certain sections of the sessions.

#### **13. Trade reporting**

Trade reports are high quantity trades and Market members may report their deals to be executed to a trade before transmitting their orders to the order book by means of this feature. The minimum and maximum order sizes applicable for trade reports are listed in <u>Appendix-4</u>. Trade reports that meet the approval conditions in <u>Appendix-4</u> match automatically. Price statistics relating to trade reporting are published separately from other trade statistics on the market. But trade reports are included in both total and series' total traded volume and value.

Trade reports are entered only in Normal Session by brokers/chief brokers via trading terminals and FIX users. There are two types of trade reporting methods in the System.

## **13.1. One-sided trade reporting**

One-sided trade reporting is used when the parties of the trade are different Market members. One of the parties enters the details of the trade including trade report type, side, quantity, price, account and counterparty information. The counterparty confirms the trade by entering account information.

## **13.2.** Two-sided trade reporting

Two-sided trade reporting is used when the buyer and the seller are the same Market member who report all details of the trade including trade report type, quantity, price, buy and sell accounts.

## 14. Partitioning

The System consists of partitions in order to optimize the order processing and speed capacity and all the contracts are distributed into these partitions.

As a result of the partitioning, in some market access protocols, it is necessary to provide separate connections to all groups and to pay attention to special situations in order transmission principles.

#### 15. Closing of Market and Sub-markets

Market or Sub-markets can be closed continuously or temporarily on any trading day or up to five trading days upon the resolution of General Manager. Similarly, General Manager is authorized for resuming trading activities. For trading halts exceeding five days, the provisions of Article 39 of the Regulation shall prevail. In case Market or Sub-markets are closed, it is announced with the reasons via KAP.

#### **16.** Suspension of trading in a contract

In the event of the suspension of the underlying asset in the System, the contracts based on the related underlyings may be suspended upon the resolution of General Manager. Despite that the principle is to keep the relevant contracts trading while the underlying asset continues to trade, General Manager may decide on suspension of contracts independent from the underlying asset. Besides, resume time of the contracts may be different from that of the underlying asset depending on the General Manager's decision.

General Manager may suspend trading contracts temporarily for a maximum period of one month in case the provisions of Article 25 of Regulation applies. Board of Directors is authorized to decide on suspensions exceeding one month. The reason of the suspension and timing of re-starting to trade for the relevant contracts is announced via KAP. General Manager may delegate his powers to the appointed Deputy General Manager(s).

#### 16.1. Trading halt After Market-Wide Circuit Breaker System Activation

In case of Market-Wide Circuit Breaker System (MWCB) activation in Equity Market, trading of contracts based on equities and equity indices in Derivatives Market will halt temporarily for 30 minutes. In this period, orders for related contracts can be cancelled and/or inactivated but cannot be amended.

If MWCB is triggered in Equity Market after 17:00, trading of contracts based on equities and equity indices in Derivatives Market are temporarily halted and restarted as of 18:08 with VIOP\_SUREKLI\_MZYD continuous session.

#### **17. Permanent termination of trading in the contracts**

Trading of contracts on the Market can be terminated by General Manager in case of below circumstances:

a) Underlying asset of contract is not traded in spot market or trading of underlying is suspended for a certain period of time,

b) License agreements signed for underlying asset of contract is terminated,

c) There is no trade in contract at least three months or no open position,

ç) Other circumstances which will block the trading ability or may affect the trading in Market arise.

After a contract is terminated, it may be reopened for trading with the decision of the Board of Directors only if the minimum contract specifications remain unchanged.

## **18.** Notification and announcement of trades

Reports on prices, quantities and amounts of trades executed in the Market are accessible to Market members in electronic environment. In addition, the information on orders transmitted to the System and the information on executed trades can be obtained at any time during the period when the System is open.

In the case of any discrepancy on contents of information in the reports regarding trades, the Exchange's records will prevail.

#### **19. Trade cancellation**

Without prejudice to the provisions of Article 33 of the Regulation, trades that occur due to erroneous order(s) may be canceled by the Exchange under the following rules.

a) Erroneous trade/trades shall be executed as a result of one of members' erroneous order at least.

b) All requirements stated below shall be fulfilled in time of cancellation request since erroneous trade/trades may be subject to cancellation.

i. Application Period For Erroneous Trade Cancellation: Application for erroneous trade cancellation can be made within 30 minutes from the time the trade is executed. Deadline of application for trade cancellation is 18:30 for full business day normal session trades and 13:00 for half business day normal session trades.

ii. Required Information In Application For Erroneous Trade Cancellation: Order number subject to cancellation, contract and account number relating to erroneous trade/trades due to the erroneous order shall be submitted during the application period. Trade number, price and trade quantity of erroneous trades executed as a result of the related order are also required following the application.

iii. No Bust Range: Trades executed at the prices that are out of no bust range which are calculated by using reference price can be subject to cancellation. No bust ranges are stated below table on the related contract basis.

Instrument class	Price Change Calculated from Reference Price
BIST30 Index and Single	+/- 5%
Stock Futures	
Currency Futures	+/- 3%
Other Futures Contracts	+/- 4%
All Call and Put Options	Maximum of +/-50% of the reference premium price or market
	maker maximum spread defined for the related contract

## Table 6: Price Change Calculated from Reference Price

iv. Minimum Loss Amount Generated As A Result of Trade/Trades Which Is/Are Subject To Cancellation: Minimum loss amount calculated by comparing reference price and prices of trade/trades subject to erroneous trade cancellation shall be TRY 150,000 for applications before 17:30 for full business day normal session and before 12:00 for half day normal session; TRY 600,000 for applications made at 17:30 and thereafter during the normal session, for half day normal session at 12:00 and thereafter during the half day normal session; and TRY 150,000 for the applications made during the evening session.

v. Reference Price: Reference price, which is calculated with one or more of the following methods in order to determine the price that will reflect the market fairly, is used to clarify acceptable price levels for trade cancellation and losses due to related erroneous trade;

- i. Price/prices before the erroneous trade,
- ii. Price/prices after the erroneous trade,
- iii. Settlement price of the previous day,
- iv. The first trade price in case erroneous trade/trades are executed with a pending order,
- v. Theoretical price calculated according to the spot price of the related underlying asset or the prices of other contract months,
- vi. Prices taken from market makers,
- vii. If it is decided that above mentioned methods does not reflect the market failry, a different reference price may be determined by General Management.

c) In cancellation of trades arising from intermonth strategy orders, prices of trades executed in the related contracts and strategy order price are considered together.

ç) Erroneous trade cancellation requests which fulfill all the requirements stated above can be submitted submitted by either one or both sides of the trade via Trading Workstations (TW, Omnet API) or e-mail to viop@borsaistanbul.com. Cancellation requests for erroneous trade at Evening Session can be submitted by only via e-mail to viop@borsaistanbul.com. Members can also reach VIOP via telephone numbered 0212 298 2427/3, however to be a valid cancellation request an e-mail has to be sent to viop@borsaistanbul.com.

d) To be subject to cancellation, whether price tendency of the market is in line with the erroneous trade price or not may be taken into consideration separately.

e) In case trade cancellation is decided, cancellation decisions are announced pursuant to the relevant legislation. Before the cancellation, trading on the relevant contract may be suspended. Also, parties of the relevant trade may be informed about the cancellation.

f) Even if the above conditions are met with regard to the cancellation of the erroneous trade, Article 33 of the Regulation shall be applied if the above conditions are not met, while the right

of the Exchange to cancel or not to fulfill the whole or part of the cancellation request is reserved.

g) Erroneous trade reports, even if the above mentioned conditions are not met, may be cancelled if the parties have approvals.

ğ) Application for a trade cancellation for erroneous trades in the Evening Session is evaluated in the following Normal Session. If the application is considered as acceptable, the related erroneous trade/trades are cancelled.

h) In the evaluation of trade cancellation request, requests may be evaluated together or seperately taking the relationship between orders and trades into account for the same investor.1) In case of cancellation of the trades executed in the opening session, the equilibrium price does not change.

## SECTION FOUR PRINCIPLES REGARDING ORDERS

## 20. Provisions regarding market access 20.1. Protocols used for market access

The following protocols are used for market access:

a) Trading Workstations (TW, Omnet API),b) FixAPI,c) OUCH,ç) ITCH.

## 20.1.1 Trading Workstations (TW, Omnet API)

Trading workstations are allocated to Market members within the framework of Exchange's regulations.

## 20.1.2. FixAPI

In the System, FixAPI protocol is used for three purposes:

- **FixAPI Order Entry:** It is used for order entry, quote, quote request, entry, amendment and cancellation of trade reports and creation of flexible contracts from co-location or remote access points.
- **FixAPI Reference Data:** It is a FixAPI connection that provides contract-based reference information.
- **FixAPI Drop-Copy:** It is a FixAPI connection that provides notifications of orders, quotes, trades and trade report belonging to a particular Market member. This user-filtering feature makes it possible to filter users by Market members. In other words, it is possible to filter a group of user within all users by Market member.

## 20.1.3. OUCH

It is an order transmission protocol that allows faster order transmission and thus highfrequency trades compared to other order transmission protocols. In this order transmission protocol, limit and quote order entries, order amendments and order cancellation functions can be used.

## 20.1.4. ITCH

It is a protocol that provides faster data flow than other data broadcasting protocols. It is used to publish order and trade data of the contracts being traded with a low delay.

#### 20.2. Provisions regarding algorithmic order transmission systems

It is mandatory for Market members to make written notification (with <u>APPENDIX-15</u>) to the Exchange about the software they will use to send orders from their own centers or co-location centers via Algorithmic Order Transmission Systems. Also, before the Market member begins to send orders via the algorithmic order transmission systems, it is necessary to commit to the Exchange in writing (with <u>APPENDIX-16</u>) that these systems are tested, their results are predictable, and they will not result in operations that would distort the Market. Once systems are introduced, it is necessary that the Market member can monitor the risks in real-time and take the necessary precautions to limit these risks and stop the transmission of orders by stopping the software as soon as possible.

In order to ensure that high-frequency trades are differentiated from normal customer orders and to follow up them, different users will be allocated for these trades with the Market member application. In the transmission of orders with the algorithms based on high frequency trades, it is necessary to define individual users for each different algorithmic order transmission system. Users using the OUCH order transmission protocol are also considered within the scope of high frequency trades. These users are obliged to use risk group controls (user limits) of the Pre-Trade Risk Management Application. The operating principles for the pre-trade risk management application are listed in (<u>APPENDIX-6</u>). In order for a user to be considered as a high-frequency trading user, the servers that will issue orders on behalf of that user must be placed at the Exchange's co-location center by the Market Member and a specific user code must be given by the Exchange to this users.

The Market member is directly accountable to the Exchange for the algorithmic order transmission systems that are used for transmitting own or customer's orders. There is an inalienable responsibility of the Market member who uses/mediates about the effects of these systems on the Market and the consequences thereof. The Market member shall be deemed to have accepted and committed that orders will be sent in such a way that they will not interfere with the operation of the markets, will not cause a risk, will not cause misguidance, and that control measures will be created. It is the responsibility of the Market members to have the necessary controls and tests on the software to be used in order transmission with the algorithmic order transmission as soon as necessary. The Market member is obliged to notify the Exchange with the fastest communication channel as soon as the problems or disruptions caused by the algorithmic order transmission systems occur. It is mandatory for the Market member to document in writing which methods and calculations are used for the risk limits to be set for each risk group within the scope of pre-trade risk management application and to notify the Exchange on the same day if requested.

In case of market disruption situations arising from the trades of the algorithmic transmission systems and in particular high frequency trading users, the trades of related users may be suspended by the Exchange and the services provided may be partially or completely stopped. In case the services are stopped by the Exchange, the member can not claim for profit deprivation, damage and other compensation.

## 21. Priority rules in matching

Priority rules to be applied when matching orders with multiple price method are as follows:

a) Price Priority: Sell orders at lower prices shall be filled before the sell orders at higher prices and buy orders at higher prices shall be filled before buy orders at lower prices.b) Time Priority: In case of prices being equal, orders placed earlier shall be filled first.

#### **22.** Order methods

It is mandatory to select one of order methods mentioned below for order entry on the System:

a) Limit Orders: A Limit Order is the order method to buy or sell amount of contracts up to a specified limit price. Price and quantity must be entered when this method is used.

b) Market Orders: A Market Order is the order method which is used to match orders, starting from the best price order at the time the order is entered. "Market" order can be entered only by choosing "Fill or Kill" or "Fill and Kill" order validity.

c) Market to Limit: Market to Limit Orders are the orders, such as market orders, which are entered only by specifying the quantity without price. Market to Limit Orders execute only with the pending best price orders The unmatched part of the order become a limit order with the price of the last trade and stay in the order book. A market to limit order is cancelled immediately if there is not any pending order on other side.

Order types that can be entered according to trading day sessions are given in the <u>APPENDIX-</u> <u>3</u>.

## 23. Order validity

While entering order, it is obligatory to choose one of the following order validity:

a) Day: Order is valid on the day of entry. If it does not match until the end of the day, it is automatically canceled by the System.

b) Good-Till-Cancelled: Order is valid until cancellation. If this order type is selected, such order shall remain active in force until the expiry date of the contract unless cancelled or matched and shall be cancelled automatically by the System at expiry.

c) Good-Till-Date: The order remains in force until the date indicated upon entering the order in the System. Unless executed or cancelled by the specified date, such order shall be automatically cancelled by the System at the end of the trading day on the specified date. The system shall not allow order entry for further date than that of the expiry date of the relevant contract.

ç) Fill or Kill: It is the order method that requires order to be matched in whole upon the entry or activation otherwise cancelled in whole.

d) Fill and Kill: Upon order entry or activation, the order is matched in full or in part. The unmatched quantity shall be cancelled.

Buy orders lower than the lower limit price and sell orders higher than the upper limit price may be entered into the System. Those orders, including Fill or Kill/Fill and Kill orders, are accepted by the System as "Paused" until they get into the price limits and become active as a result of daily price limit changes and order validity/fill conditions are controlled when they are activated.

Order validities that can be entered according to trading day sessions are given in the <u>APPENDIX-3</u>.

#### 24. Intermonth Strategy Orders

Intermonth strategy orders enable submission of two simultaneous automatic reverse orders (by one order entry with spread price) for different contract months of traded futures contracts. Different contract months composing the strategy are called the "legs" of the strategy where "M1" refers to the nearest contract month and "M2" refers to the second nearest (far) contract month. Futures contracts for which the intermonth strategy orders can be used are given in the appendix (<u>APPENDIX-17</u>) Rules of operation of strategy orders are given below:

- i. Strategy Buy Order: Order is submitted to the System taking into account the spread price (far month contract bid price- near month contract offer price) composing far month contract (M2) buy and near month contract (M1) sell trade.
- ii. Strategy Sell Order: Order is submitted to the System taking into the account the spread price (far month contract offer price-near month contract bid price) composing far month contract (M2) sell and near month contract (M1) buy trade.
- iii. Strategy order codes which are similar to the contract codes are used at order entry.
- iv. Buy or sell strategy orders can be entered with negative price as long as the price limits are satisfied.
- v. Maximum order quantity of a strategy order equals that of the contracts composing the strategy.
- vi. Strategy order entry is not accepted for durations other than Limit and Day. Strategy orders can not be linked to any condition and can not be used for trade reporting.
- vii. Matching: The System initially checks whether the price and quantitiy of a buy or sell strategy order can be met with open orders of near/far month contracts or not, and simultaneously matches the strategy order with these orders if the conditions are satisfied. If the spread and or quantity can not be met with open orders of the contracts, this time the System looks for a (counter) strategy order satisfying the conditions. If such an order exists in the System, appropriate prices for far and near month contracts are determined based on the spread, best bid/best offer and base prices of the related contracts and automatic trades at the far and near month contracts are generated. Detailed information and quantitative examples regarding the intermonth strategy orders are given in the appendix (<u>APPENDIX-17</u>).
- viii. Automatic trades are not included in settlement price calculations and price statistics like the last, low and high of the far and near month contracts composing the strategy and do not activate stop orders with inactive status based on the last price condition. Trade parties can inquire automatic prices for both contract months through trading workstations or FixAPI Drop-Copy intraday, and through trade book at the end of the day.
  - ix. Price Limits: Upper and lower price limits for strategy orders are calculated based on the following formulas:

Lower Limit= (Far Month Contract Base Price- Near Month Contract Base Price)-k Upper Limit= (Far Month Contract Base Price- Near Month Contract Base Price)+k

Information on parameter k which is determined based on the underlying asset is present in the appendix (<u>APPENDIX-17</u>).

x. In case trades in any of the legs/contract months composing the strategy are suspended due to any reason, strategy order entry is not allowed.

## 25. Stop orders

These are orders that are activated when the specified condition is satisfied. As condition, the last, best bid and best ask price of the contract or other contract in the same partition can be used. The features of the stop orders are as follows:

i. They are entered based on a specific price (last price, best bid or best ask) condition.

ii. If an order is entered or a trade is executed at the specified price condition, the stop order become active, in other words the order is triggered when the specified condition is fulfilled.

iii. If there is a pending order in the System, that fulfills the activation condition, or the last trade price fulfills the activation condition, order become active when it is entered. iv. The order does not appear in the order book until activated.

v. Contracts in which the order is entered and contracts used as a condition must be in the same partition. The other instruments traded at BISTECH system can be used as a condition at the stop orders sent through FixAPI. For the order details of such stop orders sent via FixAPI, the messages received from FixAPI channel must be taken into consideration. Certain details regarding these orders may not be shown at trading workstation due to user menu rights. There are certain instruments that are not tradeable but created as underlyings for traded contracts at VIOP (i.e. D\_XU030D, D\_USDTRY etc.). The stop orders that have such instruments as condition shall not be activated even if the specified condition is satisfied.

vi. Buy orders lower than the lower limit price and sell orders higher than the upper limit price may be entered into the System. These orders can be accepted in Paused status if activated. Buy orders lower than the lower limit price and sell orders higher than the upper limit price can also be entered for stop orders. Controls related to price limits are done by the System when the order is activated.

vii. The controls concerning maximum order quantity and price tick will be made by the system at order entry.

The trading day sessions for Stop orders are given in <u>APPENDIX-3</u>.

## 26. Priciples Regarding the Orders for the Evening Session

The orders should be flagged accordingly during entrance, to be valid in the Evening Session. In Evening Session market and market to limit order types and GTD, GTC order validities are not allowed. GTD and GTC orders without off-hour flag are paused while entering Evening Session by the System. Those orders are taken to active status with time priority while entering Normal Session.

Daily orders entered in Normal Session without off-hour flag are cancelled at the end of related Normal Session. Daily orders entered in Normal Session with off-hour flag and day orders entered in Evening Session are cancelled at the end of Evening Session.

There will be different price limits in Normal Session and Evening Session. So it is possible for an off-hour order, entered in Normal Session, to be "paused" in case the price turns out of limits in Evening Session. GTC/GTD stop orders may be entered in evening session, and in normal session with off-hour flag. However, these orders will be cancelled once they are triggered during Evening Session.

Intermonth Strategy Orders are not allowed in Evening Session.

## 27. Principles Regarding Orders in Opening Session

In order collection period only limit orders and orders with order validity other than "FOK" are allowed. "GTD" and "GTC" orders entered from previous days are also included in the opening session.

Strategy orders, stop orders, creation of flexible contracts and trade reports are not allowed.

In matching period of the opening session; order entry, cancellation and order amendment are not allowed.

Unmatched and uncancelled orders from opening session are transferred to the normal session.

If the activation condition for the stop orders entered in the previous days is met during the opening session, the relevant stop orders are triggered by the start of the normal session.

# **28.** Special Conditions Regarding Physically Delivered Currency Futures and Options Contracts

In physically delivered USD/TRY futures and options contracts, orders from real person accounts are not accepted.

## 29. Quote Request

Market members will be able to send quote requests to all market members or a selected one via FIX for a specific instrument. Quote request may be one-sided as well as two-sided.

#### **30. Minimum Maximum Order Quantities**

Price and quantity control is done by the system at order entry. Orders that do not match the features of the corresponding trading day part can not be entered into the system. The minimum and maximum order sizes applied in the market are shown in the table below

## Table 7: Minimum and Maximum Order Quantities

Contract	Minimum	Maximum
	Order Quantity	Order
		Quantity
Single Stock Contracts (Underlying Asset Closing Price)		
0-2.49	1	40,000
2.50-4.99	1	20,000
5.00-9.99	1	10,000
10.00-19.99	1	5,000

20.00-39.99	1	2,500
40.00-79.99	1	1,250
80.00-149.99	1	750
150.00-249.99	1	350
250.00-499.99	1	200
500.00-749.99	1	125
750.00-999.99	1	75
≥1,000.00	1	50
Index Contracts	1	2,000
Currency Contracts	1	5,000
USD/Ounce Gold Contracts	1	1,250
TRY/Gram Gold Contracts	1	25,000
USD/Ounce Silver Contracts	1	5,000
USD/Ounce Platinum	1	500
Contracts		
USD/Ounce Palladium	1	500
Contracts	1	500
USD/Tonne Copper Contracts	1	500
Base Load Electricity Contracts	1	50
TLREF Contracts	1	100
Physically Delivered Government Bond	1	200
Contracts	1	200
Other Contracts	1	2,000

#### 31. Order amendment

Except passive orders, the permitted changes may be made by the authorized representatives on the day of the transaction as specified in the <u>APPENDIX-3</u> on waiting unmatched orders or unmatched portion of the partially matched orders.

Brokers can amend their own orders whereas chief brokers can amend all orders of Market member they are authorized to. While information in certain fields may not be amended as being the main element of an order, information provided in other fields may be amended. In the table below (Table 7), amendable fields and whether or not the time priority would still remain in effect after the amendments are indicated:

Field	Amendable/Not Amendable	Time Priority
Account Number	Cannot be amended for orders in	
	order book.	-
Position	Amendable	Yes
Price	Amendable	No
Quantity	Can be increased/decreased	No/Yes
Order Validity	Amendable	No
Validity Time	Can be increased/decreased	No/Yes
Off-Hours	Cannot be amended*	
Reference	Amendable	Yes

 Table 8: Amendment Allowed on Orders and Time Priority

\* In order to make changes in Off-hours flag from trading workstation terminals, existing order is deleted and an order with new order number is created automatically. Off-hours information cannot be changed by other protocols used in market access, if desired, the order can be canceled and a new order can be entered.

Although the changes and time priority rules mentioned in the table above apply to the day orders entered in the Evening Session, no change in the validity period can be made during the Evening Session.

Field	Amendable/Not Amendable	Time Priority
Stop Instrument Condition	Cannot be amended	-
Stop Price Condition	Cannot be amended *	-
Condition	Cannot be amended *	-
Instrument	Cannot be amended	-
Account Number	Amendable	Yes
Position	Amendable	Yes
Price	Amendable	Yes
Quantity	Amendable	Yes
Туре	Cannot be amended	-
Order Validity	Amendable	Yes
Validity Time	Amendable	Yes
Off-hours	Cannot be amended *	-
Reference	Amendable	Yes

The amendable elements and time priority of unactivated stop orders are indicated table below:
Table 9: Amendment Allowed on Inactivated Stop Orders and Time Priority

\*When stop price condition, condition and off-hours fields are amended via trading workstation, the existing order is deleted and a new order is created with a new order number. In other protocols used for market access, it is not allowed to change stop price condition, condition and off-hours fields. If desired, a new order can be sent after the delete of existing order.

## 32. Order inactivation

Market member's brokers/chief brokers can inactivate their orders and reactivate at any time during the day. On the other hand if configured, all orders can be inactivated automatically in case of a connection loss. Inactivation of an order is same as cancelation in the system. The only difference is that inactivated orders are hold on the local of brokers/chief brokers to be reentered into the System if preferred. Reactivated orders lose their time priority and get a new order number. Only TW users can use inactivation functionality. Messages regarding inactivated orders are sent to FixAPI Drop-copy users. TW users may also enter inactive orders in to the system and reactivate them during the day.

## **33. Order cancellation**

Unmatched orders or unmatched portion of the partially matched orders in the System may be cancelled by placing such order during time period specified in the workflow. Brokers may cancel solely their own orders whereas chief brokers may cancel all orders of the Market members they are affiliated with and authorized Exchange personnel may cancel or inactivate all of the orders in the System.

Orders may be cancelled by Pre-Trade Risk Management System.

"Good-Till-Cancelled" or "Good-Till-Date" orders of members whose trading authorization has been suspended or terminated are deleted from the system by the Exchange with no further notification.

As explained in <u>Appendix-5</u> a "Voluntary Order Cancellation Fee" shall be paid based on the nominal value of the voluntarily cancelled or inactivated orders by Members. In case the nominal value of the orders cancelled in a month will exceeds 50% of the total trading volume accomplished by the Member, one in one hundred thousand of the nominal value of the amount exceeding 50% of the total trading value is paid to the Exchange as the "Voluntary Order Cancellation Fee". Nominal value and trade value is calculated by multiplying contract size, quantity and price. Exchange rate shall be used in calculations of the contracts traded in terms of foreign currency. In the calculation of the total trading values, position offsets on the expiry and trade report values are not taken into account.

Market maker accounts of market maker members are held exempted from Voluntary Order Cancelation Fee in all sessions for the instrument class they are responsible as a market maker.

Intermonth strategy orders are exempt from Voluntary Order Cancellation Fee calculations.

Order cancellations on all contracts based on currency, gold, silver, platinum, palladium and copper are exempted from Voluntary Order Cancellation Fee.

Orders that are cancelled or inactivated by System or other reasons are held exempted from Voluntary Order Cancellation Fee calculation.

Regarding the cancellation of the orders by the Exchange, the provisions of Article 33 of the Regulation shall apply.

#### 34. Pre-trade risk management

The pre-trade risk management is a risk management application developed integrated with the System to control and monitor the risks arising from both orders and trades.

Risk controls may be done at three steps such as pre-order (before orders are accepted into the System) post-order (after orders are accepted) and at the time of the trade.

## SECTION FIVE PRINCIPLES REGARDING COMMITTEES AND THEIR FUNCTIONS

#### **35. Settlement price committee**

The operational principles of pre-trade risk management application are listed in <u>Appendix-6</u>. General Manager shall establish a Settlement Price Committee for the contracts traded on the Market. The committee consists of five members. Members' term of office is two years, and they may be re-elected. Seven substitute members are elected to the committee. The committee chairman is elected from the committee members having signature authority. Full members that resign from the Committee are replaced with substitute members within the knowledge of the committee chairman. In the absence of the chairman for any reason, one of the committee members designated by the committee chairman shall represent the chairman. The committee members shall remain on duty until new members are selected.

committee will be appointed from Derivatives Market, one member from Equity Market, and one member from Audit and Surveillance Board.

## 36. Operating principles of the settlement price committee

The committee shall reach a decision as soon as possible. Any committee member convokes the meetings, and the Market may call committee for meetings or it may be requested to hold a meeting by submitting a suggestion. Committee meetings are not required to be held physically; members may participate in the meetings using communication channels such as telephone, video conference and electronic mail. Absolute majority is required for committee meetings. Committees make decisions by absolute majority vote of the participants. In case of equal votes, the chairman casts the deciding vote. The committee members shall not vote on behalf of other members. The Market is required to keep the committee resolutions, suggestions made by the committee members and other necessary documents in files in a manner leaving no doubt about their safety.

If decisions of the committee members are received over the phone, such telephone conversations may be recorded on electronic media. If not, the Market shall enter the votes or suggestions of the committee members on a report in a manner leaving no doubt about their reliability.

#### 37. Determination of the daily and expiry date settlement price by the committee

The daily settlement price will be determined at the end of Normal Session by methods indicated in related contract specifications.

The committee can determine a new price in accordance with the methods envisaged in the contract specifications. Market will convey demand for changes to committee via e-mail. Then, determined prices will be presented to be voted. Each committee member holds one vote. The price with the most votes will be accepted as the price determined by the committee. In the case of equality of votes, the committee chairman's vote will prevail. In the direction of committee approval, settlement prices of contracts will be announced by the Exchange in the System.

The expiry date settlement price of the contracts traded on the Market may be corrected by a committee decision as envisaged in this Implementing Procedures and Principles.

#### **38.** Obligations of the settlement price committee members

Committee members are obligated to remain objective and unbiased as required by their position. Committee members shall not be held responsible for the decisions they take. By accepting this post, Committee members shall deemed to have declared, accepted and undertaken the provisions set forth in the Regulation and related legislation.

#### **39.** Corporate actions and corporate actions committee

Adjustments with respect to corporate actions could be done procedures indicated in <u>Appendix-</u><u>7</u>.

General Manager shall establish a Corporate Actions Committee for the contracts traded on the Market. The committee consists of five members. Members' term of office is two years, and

they may be re-elected. Seven substitute members are elected to the committee. The committee chairman is elected from the committee members having signature authority. Full members that resign from the Committee are replaced with substitute members within the knowledge of the committee chairman. In the absence of the chairman for any reason, one of the committee members designated by the committee chairman shall represent the chairman. The committee members shall remain on duty until new members are selected. Two members of the committee will be appointed from Derivatives Market, two members from Index Directorate, and one member from Equity Market.

## **40.** Operating principles of the corporate actions committee

The committee shall reach a decision as soon as possible. Any committee member convokes the meetings, and the Market may call committee for meetings or it may be requested to hold a meeting by submitting a suggestion. Committee meetings are not required to be held physically; members may participate in the meetings using communication channels such as telephone, video conference and electronic mail. Absolute majority is required for committee meetings. Committees make decisions by absolute majority vote of the participants. In case of equal votes, the chairman casts the deciding vote. The committee members shall not vote on behalf of other members. The Market is required to keep the committee resolutions, suggestions made by the committee members and other necessary documents in files in a manner leaving no doubt about their safety.

If decisions of the committee members are received over the phone, such telephone conversations may be recorded on electronic media. If not, the Market shall enter the votes or suggestions of the committee members on a report in a manner leaving no doubt about their reliability.

## 41. Determination of the changes following corporate actions by the committee

Adjustment notice regarding corporate actions will be sent by Index Directorate to Derivatives Market. The adjustments on the price and other features of the relevant contracts in accordance with Implementing Procedures and Principles are shared with the committee members by Derivatives Market.

In the case of any rejections or uncertainties on reflecting the adjustments of corporate actions on the relevant contracts' prices and other features, committee may make proposals for reflecting the corporate action on the price and features of the relevant contracts in a reasonable and fair manner. Proposals voted by committee. Each committee member has one vote. The highest voted proposal will be accepted by the committee. In the case of equality of votes, the committee chairman's vote will prevail.

In the event that the Committee decides that the corporate action cannot be reflected to the relevant contracts in a reasonable and fair manner, General Manager shall be entitled to make a decision on the necessary measures, including the termination of the related contracts by cash settlement.

## 42. Obligations of the committee members

Committee members are obligated to remain objective and unbiased as required by their position. Committee members shall not be held responsible for the decisions they take. By

accepting this post, committee members shall deemed to have declared, accepted and undertaken the provisions set forth in the Regulation and related legislation.

## SECTION SIX PRINCIPLES ON SPECIAL APPLICATIONS

#### 43. General provisions on market making

Market makers are institutions that are authorized by the General Manager and whose performance is periodically assessed in this area in order to ensure that the market works honestly, regularly and effectively in the contracts they are responsible for and to encourage the formation of a liquid and continuous market.

General Manager is authorized to decide in which contracts the market making system shall be implemented or abolished.

General Manager may designate different market making systems on the basis of session, contract, instrument class, instrument type, instrument group or market maker in accordance with limitations to market makers' position limits, daily trading limits, minimum order sizes, maximum amount of difference between buy and sell quotes and/or spread, time to expiry, contracts that market makers are responsible for and other variables regarding number of open interest to be carried and other similar criteria.

An institution may be a market maker in more than one contract. Also, there may be more than one market maker for a contract. General Manager may restrict the number of market makers on the basis of contract, instrument class, instrument type and/or instrument group.

#### 44. Market maker application conditions and documents to be issued to the Exchange

Applicants for market making must meet the following minimum requirements:

- a) To be broadly authorized within the framework of the relevant regulations of the Board for intermediary institutions,
- b) All kind of systems and technical infrastructure are completed,
- c) Signing Market Making Commitment Letter which is atteched to the <u>Appendix-8</u> and covering the general obligation of the market makers.

Market makers that meet minimum requirements must submit the following documents to the Exchange along with the application.

a) "Market Maker Application Form" (<u>Appendix-9</u>) with the official letter indicating the wish to be a market maker addressed to the Exchange,
b) "Market Making Commitment Letter"

Market Makers, demanding Market Maker OUCH user for their market making activities, will submit the (<u>Appendix-15</u> and <u>Appendix-16</u>)"Algorithmic Order Transmission Systems Information Form" and "Borsa İstanbul A.Ş. Algorithmic Order Transmission Systems Commitment Letter" documents to Borsa İstanbul in addition to the above mentioned ones.

The application for market making must be submitted to the Exchange at least 10 business days before the first business day of the month in which the market maker activities will be started.

Applications for market making that meet the minimum requirements are evaluated by the General Manager.

# 45. Market making program45.1. General operating principles

The components of the market making program are listed below:

a) Minimum order size: The minimum order quantity that the market maker is required to keep on both sides of the order book of the contract for which it is responsible.

b) Spread: The difference between the best bid and ask prices quoted by the market maker for the contracts that it is responsible for.

c) Market Presence: The ratio of the period of time during which the market maker simultaneously fulfills the maximum spread (the difference between the best bid and ask prices of the market maker for the relevant contracts) and minimum order size obligations, to the period of time during which the market remained open for the relevant contracts.

ç) Time to Expiry: Aspects such as minimum order size, maximum spread, market presence may change for the contracts on the basis of time to expiry.

d) Contracts for which the Market Maker is Responsible: Contracts that the market maker is responsible for performance criteria.

Below are the contracts subject to the Market Making Program:

Group A Contracts

a) Single Stock Futures,

b) USD/Ounce Gold Futures (Normal Session/Evening Session),

c) TRY/Gram Gold Futures

ç) USD/Ounce Silver Futures (Normal Session/Evening Session)

Group B Contracts

a) Base-Load Electricity Futures,

b) RUB/TRY Futures,

c) CNH/TRY Futures,

ç) BIST Liquid Banks Index, BIST Liquid 10 Ex Banks Index and BIST Sustainability 25 Index Futures(Normal Session/Evening Session),

d) USD/Ounce Platinum and USD/Ounce Palladium futures (Normal Session/Evening Session),

e) Physically Delivered Government Bond Futures

f) USD/Tonne Copper Futures (Normal Session/Evening Session),

g) Single Stock Options,

ğ) BIST30 Index Options,

h) USD/TRY Options.

Market making program is applied seperately for normal session and evening session. Market making activities held and revenue sharing in these sessions are evaluated seperately.

Accounts used for market making activities shall be opened at Takasbank and these accounts to be used for market making activities shall be notified in written to the Exchange. Market making activities may be performed through portfolio and/or customer accounts.

The account used for market making activities shall be only used for market making transactions. Trade report transactions can be made with the market maker account. Market maker may carry out market making activities on one account or open more than one account at Takasbank for market making activities with notice to the Exchange. Revenue sharing, fulfillment of obligations and rights are assessed on the basis of market making accounts of market members.

If market making activities are performed through customer accounts in group A contracts, application for below additional responsible contracts is compulsory.

<b>Responsible contracts</b>	Additional Responsible Contracts
Group 1 Single Stock	An options group and a Group B futures contract
Futures	
Group 2 Single Stock	An options group and a Group B futures contract
Futures	
Group 3 Single Stock	An options group and a Group B futures contract
Futures	
USD/Ounce Gold	An options group and a Group B futures contract
Futures	
TRY/Gram Gold	An options group and a Group B futures contract
Futures	
USD/Ounce Silver	An options group and a Group B futures contract
Futures	

Table 10: Responsible Contracts and Additional Responsible Contracts

Notes:

 In single stock options, an options group consists of option contracts based on 5 underlying assets.
 In case of becoming market maker on two contracts of Group A, the additional condition of Group B Futures Contract is not compulsory for subsequent applications.

As a result of the applications made within the program, market makers are included in the market maker program starting from the beginning of the month following the General Manager's decision. It is essential to start market making activities within three months following the General Manager's decision. Those who do not actually start the market making activity at the end of the term are excluded from the program in the relevant instrument class/type/group.

## **45.2.** Obligations of market makers

Market makers are obliged to fulfill performance requirements determined by the General Manager. Related requirements may be differentiated based on contract or contracts.

If needed, changes within the framework of the market making program on the following issues may be made by the General Manager:

i. It is essential that the elements of the program be changed 1 months in advance.

ii. In the event that the program requires the inclusion of new contracts or the need for improvement in relation to the program, or changes in the General Manager's evaluation, the changes may be taken into account without regard to the period specified above.

The obligations of market makers are listed in <u>Appendix-10</u> and <u>Appendix-12</u>.

## 45.3. Rights of market makers

Rights granted to market makers are determined by the General Manager and can be differentiated on contract or contracts.

The General Manager may change the rights set for the market makers in contracts for which the market maker program is applied, by notifying them at least 1 months in advance, taking trade volumes and developments in the Market into account.

The rights of market makers are listed in <u>Appendix-11</u> and <u>Appendix-13</u>.

## **45.4.** Exceptional situations in program

In the case of high volatility in the Market or other extraordinary events, the market maker may contact the Exchange and request an easing or cancellation on market making requirements. Mentioned request has to be sent to the Exchange with its reasoning on the same day by the market marker or within the knowledge of the Market member. After the evaluation of the request by the General Management, market making requirements may temporarily be lifted or amended. The related changes shall be announced to the Market.

In exceptional circumstances, the Exchange may cancel open orders placed by the market maker account/accounts in the System upon request of the market maker and/or may notify the Takasbank to stop the related account/accounts.

## 45.5. Market maker performance assessment

Daily performance is the average of the performances in the instrument class and maturities which the market maker is responsible for. Monthly performance is the average of daily performances. Days with exceptional situations are not counted in monthly performance calculation.

It is examined whether market makers meet their obligations for the period of previous 6 months as of the end of June and December. The market maker who meet the performance at least for three months in six-month period will be succeed. As a result of the performance assessment, a written warning may be made to market makers who do not meet the monthly performance criteria or in order to continue to market making activity the period can be granted or the rights of the market makers who fail to fulfill their obligations may be forfeited. Also, there will not be performance assessment for the market makers that started their activity between the evaluation periods. If necessary, Exchange may evaluate the market makers' performance for periods shorter than six months.

## 45.6. Revenue Sharing

The specified rates (<u>Appendix 11</u> and <u>Appendix 13</u>) of the total exchange fee collected for the trades (closing positions are not included) in the relevant contracts will be distributed to the market makers on performance basis, for revenue sharing purposes in return for issuing a copy of "Transaction Result Form" (at least two copies of this form should be issued by the institution and one copy should be given to Exchange) and submitting it to the Exchange.

The performance of market maker institutions for the relevant contracts will be evaluated on the basis of the following two criteria:

a) Market Presence Ratio: The ratio of the period during which the market maker simultaneously fulfills the maximum spread and minimum order size obligations determined by the Exchange, to the period during which the relevant contracts were open to trading.

b) Traded Value Ratio: The ratio of the trades entered into by a market maker institution with non-market maker accounts for the relevant contract, to the total traded value of the trades entered into by all the market maker institutions with non-market maker accounts for such contract.

Revenue sharing is on instrument class/type/group basis. Exchange fee collected from trades executed at all contracts in the related instrument class/type/group, not at only the contracts for which the market maker is responsible, are added into revenue sharing calculation. Exchange fee collected from trade reports are excluded from revenue sharing. In revenue sharing calculation, exchange fee and trade value amounts of opening session are included in the normal session's amounts.

The revenue sharing amount to be paid to each market maker will be calculated on a daily basis, taking into account the market presence rates of all market makers regardless of whether they meet the performance criteria or not and their trading volume with non-market maker accounts. Market makers who meet the performance criteria on the relevant day will have right to receive this amount and deserved payment will be made on monthly basis. In case of market making activies in Group A Contracts through customer accounts, the monthly performance on additional responsible contracts must be satisfied in order to receive share from revenue sharing.

Traded value ratio and market presence ratio coefficients are given in <u>Appendix 11</u> and <u>Appendix 13</u> for the calculation of the amount subject to revenue sharing. At this calculation, trade values of trade reports are not added to market makers' trade values. 95% of the ratio of the continuous trading duration of Equity Market to the Normal Session duration of Derivatives Market is also taken into consideration in the calculation of the rebate amount to be paid to the market makers who fulfill their obligations for single stock futures contracts. If changes in session hours are in favor of market makers, they are effective as of the relevant month.

## **45.7. Exchange Fee Discount**

Exchange fee discount is applied to market maker accounts at rates specified in <u>Appendix 11</u> and <u>Appendix 13</u> if they meet the market presence ratio determined in the same appendices. The exchange fee discount is applied to all contracts in the related instrument class/type/group, not only to the contracts for which the market maker is responsible. The discount is calculated

daily. The rules for the exchange fee discount applicable in the normal session also apply to the opening session.

The exchange fee discount does not apply to trade reports.

## 45.8. The users allocated to Market Makers

Market Makers may be provided with free of charge Market Maker FixAPI or OUCH users, which are allocated to send orders from only the market maker accounts and to responsible contracts. When allocating the users, the possibility to send orders for risk management purposes from market maker accounts to the contracts that the market maker is not responsible is taken into consideration. The number of Market Maker users allocated free of charge to market makers can be reduced, or all Market Maker users can be retrieved.

## 45.9. Program duration

The market making program is applied indefinitely. The General Manager may terminate program by announcing it to the Market 3 months in advance.

## 46. Cancellation of Market Making Authorization

Market making authority may be cancelled temporarily or permanently by the General Manager ex-officio or upon the application of the market maker. The market maker shall notify the Exchange in written form stating the request to withdraw from market making temporarily or permanently.

Temporary withdrawal from market making can be requested for a maximum period of one year. Those whose request is accepted and market maker authorization is temporarily cancelled by the General Manager may continue their market making activity at the end of the specified period with rights and obligations valid at that time. The General Manager's ex-officio to cancel authority of market maker before resuming market maker activity is reserved.

The market makers that are withdrawn permanently from market making with approval of the Exchange may be market maker again upon their application. General Manager is authorized to decide on this matter.

The cancellation of the market maker authorization does not affect the authorization to trade in the Market.

## SECTION SEVEN PRINCIPLES REGARDING CORPORATE ACTIONS

## **47.** Corporate Actions Adjustments

Examples regarding the adjustments of corporate actions and the formulas used in the calculation are given in the <u>Appendix-7</u>.

In the context of the corporate actions adjustments, the aim is to reflect the change related to the price and quantity of the underlying asset fairly to the the price of the contract, the exercise

price, and the quantity of the contract. In addition, with this reflection, the balance of total value of the open positions before and after the corporate actions adjustments will be maintained.

In line with the adjustments made to the price and quantity of the underlying share due to the corporate actions, the prices of the contracts traded in the Market, the strike price and contract size and the codes of related contracts are adjusted accordingly. No correction is made to the number of open positions in the related contracts. Depending on the rounding in the corporate action adjustments, no action will be taken regarding the possible differences in positions of the Turkish Lira values compared to the pre-corporate action adjustment values.

When an adjustment is made to the underlying asset due to the corporate action adjustment, all non-standard contracts with the same expiry date are introduced while all existing contracts in the Market are closed. Open positions in standard contracts that are closed due to the adjustments are transferred to non-standard contracts defined by a new code. The "Good-TillCancelled" and "Good-Till-Date" orders pending at the respective contracts are canceled. In addition standard option contracts with adjusted theoratical underlying price after corporate actions are opened in compliance with the related contract specifications to be traded in the Market.

If a new corporate action adjustment is made to the underlying share, the standard futures and option contracts and non-standard futures and option contracts arising due to the previous corporate action will be closed and new non-standard futures and option contracts will be introduced. Positions in closed contracts are transferred to non-standard new contracts. In addition standard option contracts with adjusted theoratical underlying price after corporate actions are opened in compliance with the contract specifications to be traded in the Market.

In the context of corporate action adjustments, the base or strike prices of the contracts after the adjustment are rounded to the nearest price tick according to the general rounding rules, which is two decimal digits. The contract size is rounded to the nearest whole number according to the rounding rules. The "Adjustment Factor", which is the base for the calculations and reflected on the relevant contracts, is obtained by rounding the closest value to seven decimal digits.

In the event that the price limits of the underlying share are removed on the spot market, the Corporate Actions Committee decides on the price change limits applicable to the relevant futures contracts. In this case, relevant adjustments are made for futures and option contracts using the reference price calculated in the spot market and/or determined by the Corporate Actions Committee.

Corporate action adjustments are not made in case of cash dividend distributions.

If the dividend payment is in the form of a share distribution, the adjustment is made according to the formula applied in capital increase by bonus issue. In the case that the dividend is distributed mixed as cash and share, the adjustment is made only for the dividend part distributed as share, adjustment is made according to the formula applied in capital increase by bonus issue. On the other hand, the Corporate Actions Committee can decide to adopt a different method than the methods mentioned above.

Flexible contracts are also subject to corporate action adjustments. Contract size, strike prices and settlement prices of flexible contracts are adjusted as well as applied for standard contracts

after corporate action adjustment. Flexible contracts created through non-standard contracts have the same contract size of non-standard contracts.

Information on new contracts and adjustments are announced to the Market by the Exchange.

In case of emergence of new situations that requires adjustment other than stated in the Implementing Procedures and Principles, adjusted price and quantity of share futures and option contracts are decided by the Corporate Actions Committee and announced by the Exchange.

## SECTION EIGHT EXTRAORDINARY CIRCUMSTANCES

#### **48. Procedure of extraordinary circumstances**

All conditions and developments, that arise from conditions of markets, sub-markets, platforms and systems or infrastructure, preventing or that may prevent the fair and secure functioning of the Market and other unexpected events are accepted as extraordinary circumstances.

If at least one of the below cases is occurred before the Opening Session, it may be decided that opening session is not started or suspended after it is opened by the General Manager:

- Technical problems stemming from the System, network, VIOP's data broadcasting (resulting from the Exchange) or data/database which may be possibly effect the entire trading system,
- The case of technical disruptions at electricity and uninterruptible power systems (UPS) of the Exchange, which disables or may disables working of the System,
- The cases of earthquake, radiation hazard, fire, flood, natural disaster, power cut and terrorist incidents etc. which may prevent the regular Opening Session.

If the Opening Session is not started at its regular time or interrupted due to the above cases, re-arrangement of opening and normal session and/or changes in start/end hours of opening and normal sessions are decided by General Manager.

If at least one of the below cases is occurred before the Normal Session, it may be decided that trading session is not opened or suspended after it is opened by the General Manager:

- Technical problems stemming from the System, network, VIOP's data broadcasting (resulting from the Exchange) or data/database which may be possibly effect the entire trading system,
- If participation in trading is restricted or hindered, due to technical disruptions for a critical number of Market members; the critical number of Market members shall be deemed to have been reached if the Market members consist more than one quarter of the total Market members (which are defined as active in the System and are executed trades in the last three calendar months before the current month) operating in the Market or/and –at least there has to be five members- concerned jointly accounted for 50% of the trading volume of VIOP at last three calendar months before the current month,
- Depending on extraordinary seasonal or other extraordinary conditions, if participation in trading is restricted or hindered, for a critical number of Market members; the critical number of members shall be deemed to have been reached if the members consist more

than one quarter of the total members operating in the Market or/and –at least there has to be five members- concerned jointly accounted for 50% of the trading volume of VIOP at last three calendar months before the current month,

- Due to a technical disruption at Takasbank system or pre-trade risk management application, at least one quarter of the total members' order cannot reach to the System and those members -at least there has to be five- concerned jointly accounted for 50% of the total transaction volume of VIOP at last three calendar months before the current month,
- The case of technical disruptions at electricity and uninterruptible power systems (UPS) of the Exchange, which disables or may disables working of the System,
- Events which may prevent the Normal Session from being held and the cases of earthquake, radiation hazard, fire, flood, natural disaster, power cut and terrorist incidents etc.

If the Normal Session is not opened at its regular time or interrupted due to the above cases, trading session's duration is determined by the below rules;

- In case Normal Session is not opened at its regular time or interrupted, if the session is not opened until the last 15 minutes of the trading session and it is understood that is not started until to the normal end time, trading session is not reopened at that day.
- In case Normal Session is opened and then interrupted due to the above reasons and cannot reopened, executed trades and entered orders are considered valid with the confirmation of no data loss by the Exchange.
- If the Normal Session is opened and then interrupted due to the above cases and then reopened, ending time of Normal Session can be changed by the General Management.
- When the Normal Session is not opened or Normal Session time cannot be changed, different practices may be applied by the General Management considering the possible effects on Market regarding the expiry date or corporate actions.

If the Opening and/or Normal Session cannot be opened or interrupted and not reopened, transactions can be held at Disaster Recovery Site. In this case, the above mentioned rules (trading session duration, ratios, numbers etc.) are executed. For all connections remote access method is used in DRS.

If at least one of the below cases is occurred before the Evening Session, it may be decided that trading session is not opened or suspended after it is opened by the General Manager:

- Technical problems stemming from the System, network, VIOP's data broadcasting (resulting from the Exchange) or data/database which may be possibly effect the entire trading system,
- Extension of Normal Session or delay on end of day processes of Normal Session,
- The case of technical disruptions at electricity and uninterruptible power systems (UPS) of the Exchange, which disables or may disables working of the System,
- Events which may prevent the Evening Session from being held and the cases of earthquake, radiation hazard, fire, flood, natural disaster, power cut and terrorist incidents etc.

If Evening Session is not opened at its regular time or interrupted due to the above cases, trading session's duration is determined by the below rules:
- In case Evening Session is not opened at its regular time or interrupted, if the session is not opened until the last 1 hour of the trading session and it is understood that is not started until to the Evening Session end time, trading session is not reopened at that day.
- In case Evening Session is opened and then interrupted due to the above reasons and cannot reopened, executed trades and entered orders are considered valid with the confirmation of no data loss by the Exchange.
- If the Evening Session is not opened, interrupted and restarted due to the above cases, the end time of Evening Session may be changed by the General Management.

In the case of extraordinary circumstances, General Manager may take, depending on the type of the extraordinary event, inter alia, one or more of the following measurements in order to ensure that trading in the Market is carried out in a fair and secure manner:

- a) To change the requirements concerning the financial obligations of Market members,
- b) To request for transactions to be carried out only for closing open interests,
- c) To change the expiry dates of contracts,
- c) To change the method and conditions of settlement,
- d) To change the daily price limits,
- e) To request offset of the open interests and determine the settlement price of the contract,
- f) To change opening and closing hours of the trading session, suspend or restrict the transactions,

Depending on the quality of the extraordinary circumstances, provisions of Clearing Legislation shall be applied relating to precautions to be taken by the Clearing House.

In the case of a Market member's or client's failure to fulfill the actions required in accordance with the provisions of this article, transactions that may be realized by the Exchange or the Clearing House will be realized at their own option with no further notice.

Practices hold within the framework of extraordinary circumstances and the others set by the General Manager in this regard will be executed by VIOP.

#### **49.** Changing daily price limits

If deemed necessary for market conditions or in case extraordinary circumstances occur, daily price limits calculated from base price can be changed on the basis of contract and/or session by General Manager. This change is announced to the Market.

Changes in daily price limits can be made in the opening session, normal Session or evening Session as well as before or after these sessions. If necessary within the framework of market conditions, the daily price limits, on a contract basis, may be raised up to two times by the Deputy General Manager or Market Manager.

#### 50. Cancellation of Pending Orders by Phone or E-mail

In case market members could not connect to system due to technical disruptions and provided that there is no operational and technical risk, order cancellation requests via telephone or email may be accepted regarding the availability of the sources and principle of best effort within the rules below. a) Order cancellation requests may only be accepted via phone in which conversations are recorded and from member e-mail addresses. Accordingly, +90 212 298 24 27 (Dial: 3) numbered phone or viop@borsaistanbul.com e-mail address may be used to reach a Derivatives Market staff.

b) Market staff may cancel the orders with her own user on behalf of member when broker/chief broker applied for order cancellation with phone or e-mail and required security checks completed if necessary.

c) During order cancellation request, order number, contract or strategy order code, account number, order method, side, price and quantity have to be specified to market staff. However, if it is required to cancel all orders of the member/user/account in any or all instrument/instrument class/type, the necessary information to make relevant distinction is sufficient. In any case, market staff may request additional information for confirmation if necessary.

c) The pending orders that are requested to be cancelled may be matched and turned into trade until canceled by the market staff. The Member cannot request the cancellation of these trades, without prejudice to the provisions of this Procedure regarding the cancellation of the trades due to erroneous orders or orders.

**SECTION NINE** d) The market member who requests order cancellation via phone is regarded to accept that the phone call records taken by the Exchange and the Exchange orderbook, records and documents on which the order cancellations are reflected will be final and valid evidence, that she has no objection to the trades realized until the cancellation, and that she accepts the errors which may be made while entering the requests received via phone to the system and their consequences.

### **OTHER PROVISIONS**

### **51.** Powers of the Exchange

Without prejudice to its authorities vested by the Regulation, Directive and other arrangements, in order to ensure that the Market operates in an efficient, fair, and reliable manner, or in the event of extraordinary price and quantity movements or formation of artificial prices, if deems necessary, General Manager authorized to:

a) Set different trading methods including the single price trading method,

b) Suspend trading for a certain period depending on price movements and number of trades,

c) Decide trade reporting shall be accepted or not,

ç) Bring limitations to methods, types and validity periods of orders,

d) Cancel all or part of the pending orders,

e) Limit the connection protocols belonging to Market member or stop usage of those,

f) Change the scope of the data to be disseminated,

g) Change the hours specified in the daily workflow.

General Manager may perform the tasks and procedures listed above without prior notice.

### **52.** Clearing house

İstanbul Settlement and Custody Bank Inc. (Takasbank) is clearing house for the trades executed in the Market.

### **53.** Exchange fee and other charges

A fee based on the trades executed in the Market is collected at the rates determined by the Exchange. Exchange fee is charged separately for each side of trade. Closing the open positions at the expiry is also charged as exchange fee.

Tariff on exchange fee and other charges are in the <u>Appendix-5</u>.

### 54. Data Dissemination

Orders in the System may be monitored via the inquiry screens that include market depth data such as market by level and market by order. Furthermore, the price and depth information relating to pending orders in the System for each contract may be disseminated on a real-time or delayed basis through data vendors. In addition to these, reference data which unchanged during the day and the date of trade are disseminated in the same way at the beginning of each day.

General Management determines order and trade information to be disseminated. Moreover, General Management decides electronic media will be used for dissemination and frequency of update for information disseminated.

### **55. Bulletin and Reports**

Bulletin and reports regarding the Market are published electronically. Details in the aforementioned bulletin and reports and explanations about them announced in "VIOP Data Dissemination and Acceptance Formats". General Management is authorized to determine principles concerning the dissemination of price and depth information.

### 56. Circumstances for Which There Is No Provision

General Manager is authorized to make decisions, organize and direct implementations within the framework of legislation about subjects not included or not mentioned in this Implementing Procedure and Principles.

### **57. Repealed Regulations**

With the entry into force of this Implementing Procedure and Principles, Circular on Principles of Operation of the Derivatives Market dated 19/7/2013 and numbered 433, Circular on General Principles Regarding Adjustments to Single Stock Futures and Equity Options Due to Corporate Actions dated 13/12/2012 and numbered 414, Announcement dated 15/9/2015 and numbered 2015/86, Announcement dated 19/3/2015 and numbered 2015/31, The General Letter dated 21/7/2014 and numbered 4186 and the General Letter dated 26/3/2014 and numbered 4139 have been abolished.

#### 58. Enforcement

This Implementing Procedures and Principles shall enter into force on the date of its publication.

### **59. Execution**

The provisions of this Implementing Procedures and Principles shall be executed by General Manager.

#### **60. Revisions**

Revisions of this procedure are attached (Appendix-19).

# APPENDIX-1: CONTRACT SPECIFICATIONS OF BORSA İSTANBUL DERIVATIVES MARKET

<b>A. Single Stock Option</b> Underlying Asset	Equities selected by Borsa İstanbul and approved CMB.
Option Class	Call and Put Options
1	A
Exercise Style Contract Size (Standard Contract)	European; an option may only be exercised on the expiry date. One standard single stock option contract represents 100 shares of underlying stock. In cases of capital increase through rights/bonus issues, merger and similar events (corporate actions) which influence the price and quantity of the underlying asset, where the Exchange changes the price, strike prices and/or multiplier, the contract size may be determined as different from the standard contract size. In such cases, different single stock option contracts with standard and non-standard contract sizes of the same underlying asset may be traded
Price Quotation and Minimum Price Tick (Standard Contract)	On the order book, premium offers are shown on the basis of 1 underlying asset. In other words, the offers for single stock options contract in the Market are entered on the basis of the premium given on the basis of 1 unit of the underlying asset. The premium price of a single stock option contract is entered into the system with two digits after the comma. Minimum price tick is 0.01. Quantity offers are entered as 1 contract and its multiples.
Contract Months	All calendar months (three consecutive months - the current contract month and the next two calendar months shall be concurrently traded.) In addition to standard contract months, flexible contracts can be created for a maximum period of the expiry day up to 180 days by users.
Settlement Method	Physical delivery
Settlement Method Daily Settlement Price	<ul> <li>Physical delivery.</li> <li>At the end of the session, the daily settlement price is calculated as follows and rounded to the nearest price tick: <ul> <li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed, theoretical prices calculated in consideration prices of underlying asset and other contracts based on the same underlying asset will be determined as the daily settlement price.</li> </ul> </li> </ul>

### A. Single Stock Option Contract

	If the daily settlement price cannot the above methods by the end of the prices calculated do not reflect the may determine the daily settlem theoretical price, spot price of the day's settlement price or the best the session. Trades reports will not be taken calculations. The Settlement Price daily settlement price is under rese	e session, or it is decided that the market correctly, the Exchange nent price in consideration of underlying asset, the previous bid and ask prices at the end of into consideration in the above Committee's right to change the
Last Trading Day	Last business day of the standart c is the expiration date for flexible co In case domestic markets are close	ontract month. Last trading day ontracts. ed for half day due to an official
	holiday, last trading day shall be th	
Expiry Day	Last business day of the standart concerning the standart concerning the standart concerning the standard stand	1
Settlement Period	In case domestic markets are close holiday, expiry day shall be the pre Settlement period is T+2 for physic	ed for half day due to an official eceding business day.
	collected starting from T day from received are transferred to the acco	m the accounts and premiums
Base Price and Daily Price Limit	The base price is the theoretical pr price limits and determined by Ta contract is opened. For other tradin of previous day. Daily price limit is applied as state	akasbank at the date when the ag days it is the settlement price
Strike Prices	Strike prices of the single stock opti shall be determined in accordance	
	Strike Price Intervals (TRY)	Strike Price
		Increments (TRY)
	0.01–0.99	0.02
	1.00–2.49	0.05
	2.50-4.99	0.10
	5.00-9.99	0.20
	10.00-24.99	0.50
	25.00-49.99	1.00
	50.00-99.99	2.00
	100.00-249.99 250.00-499.99	5.00 10.00
	500.00-999.99	20.00
	1,000.00 and upper	50.00
	By taking closing price of underly trading day as base price and usi method, at-the-money price levels eight different (one at-the-money, of the-money) strike price levels are of	ings in spot market in previous ng theoretical price calculation are determined. Contracts with one in-the-money and six out-of-

	In addition to standard strike prices, flexible contracts can be created by users with the strike prices which are between below/above 20% of minimum/maximum of the current strikes.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
Collateral and	It is stated according to Clearing Legislation.
Margining Rules	
B. Single Stock Futures	Contract
Underlying Asset	Equities selected by Borsa İstanbul and approved by CMB.
Contract Size	One standard single stock future contract represents 100 shares of
(Standard Contract)	underlying stock. In cases of capital increase through rights/bonus issues, merger and similar events (corporate actions) which influence the price and quantity of the underlying asset, where The Exchange changes the price, and/or multiplier, the contract size may be determined as different from the standard contract size. In such cases, different single stock future contracts with standard and non-standard contract sizes of the same underlying asset may be traded.
Price Quotation and	On the order book, offers are shown on the basis of 1 underlying
Minimum Price Tick	asset. In other words, the offers in the Market are entered on the
(Standard Contracts)	basis of the price given on the basis of 1 unit of underlying asset.
	system with two digits after the comma. The minimum price ticks for price intervals are shown in the table. Quantity offers are entered as 1 contract and its multiples.
	Minimum
	Price Intervals (TRY) Minimum Price Tick
	0,01 99,99 0,01
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	500,00 999,99 0,10
	1.000,00 2.499,99 0,25
	2.500,00 - 0,50
Contract Months	All calendar months (three consecutive months - the current contract month and the next two calendar months shall be concurrently traded.)
Settlement Method	Physical Delivery.
Daily Settlement Price	The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick: a) The weighted average price of all the trades performed
	within the last 10 minutes of the Normal Session,

	<ul> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> </ul>
	with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	a) The average of the best buy and sell quotations at the end
	<ul><li>of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	Closing price of every single stock underlying in spot market in last trading date is stated as expiry day settlement price.
	On the last trading day, the expiry date settlement price is determined by the Settlement Price Committee if the session and/or closing session on the spot market is partially or completely closed, or price was not discovered despite the fact that the market was open on the last trading day.
Last Trading Day	Last business day of each contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	Settlement period is T+2 for physical delivery. Premium liabilities are collected starting from T day from the accounts while premium receivables are transferred to the accounts by T day.
Base Price and Daily	Base price is used in calculation of daily price limits and it is
Price Limit	determined by Settlement Price Committee at the date when the contract is opened. For other trading days it is the settlement price of previous day.
	Daily price limit is equal to $\pm 20\%(*)$ of the base price determined for each contract. If the upper or lower limit so calculated does

		not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours		Trading Hours are in <u>Appendix-3</u> .
Collateral a	nd	It is stated according to Clearing Regulation.
Margining Rules		_

C. BIST 30 Options Con Underlying Asset	BIST 30 Price Index	
Option Class	Call and Put Options	
Exercise Style Contract Size	European; an option may only be exercised on the expiry date. Contract size for the index options is 10 underlying securities. (For example, BIST-30 Index * TRY $10 = (10,240.00)*10 = TRY$ 102,400.00).	
Price Quotation and Minimum Price Tick	Prices are offered for the premium value of one underlying security. It is entered as two digits after the point. Minimum price tick is 0.01. Quantity quotations are entered as one contract and its multiples.	
Contract Months	February, April, June, August, October and December (Contracts with three different expiration months nearest to the current month shall be traded concurrently.) In addition to standard contract months, flexible contracts can be created for a maximum period of the expiry day up to 180 days by users.	
Settlement	Cash settlement	
Daily Settlement Price	<ul> <li>The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:</li> <li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the weighted average price of all the trades performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> </ul> If the daily settlement price cannot be calculated with the methods above by the end of the session, or the prices calculated do not reflect the market correctly, the Exchange may determine the daily settlement price in consideration of theoretical price, the previous day's settlement price or the best bid and ask prices at the end of the session.	

### C. BIST 30 Options Contract

	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the
	daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	For call options,
	The final settlement price shall be calculated by weighting of the time weighted average of index values of the last 30 minutes of continuous auction in the equity market and closing price of the index with 80% and 20%, respectively. The difference between the calculated weighted average price (final settlement price of pertaining contract month's BIST30 Index Futures) and strike price is rounded to the nearest price tick and called as the final settlement price.
	For put options,
	The final settlement price shall be calculated by weighting of the time weighted average of index values of the last 30 minutes of continuous auction in the equity market and closing price of the index with 80% and 20%, respectively. The difference between strike price and the weighted average price (final settlement price of pertaining contract month's BIST30 Index Futures) is rounded to the nearest price tick and called as the final settlement price.
	The final settlement price will be determined by the Settlement Price Committee if the session and/or closing session in the spot market was partly or entirely closed, or price was not discovered despite the fact that the market was open on the last trading day.
Last Trading Day	<ul><li>Last business day of the standard contract month. Last trading day is the expiration date for flexible contracts.</li><li>In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.</li></ul>
Expiry Day	Last business day of the standard contract month. Expiry day is the expiration date for flexible contracts. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Premiums paid are deducted from the accounts starting from the end of T day, while premiums received are added to the accounts by T day.
Daily Price Limit	The base price is the theoretical price used in calculation of daily price limits and determined by Takasbank at the date when the contract is opened. For other trading days it is the settlement price of previous day. Daily price limit is applied as stated in <u>Appendix 14</u> .
Strike Prices	Strike prices of the index option contracts in the trading system shall be determined in accordance with the following table.
	StrikePriceIntervalsStrikePrice(TRY)Increments (TRY)

		0,01-99,99	1,00	
		100,00-249,99	2,50	
		250,00-499,99	5,00	
		500,00-999,99	10,00	
		1.000,00-2.499,99	25,00	
		2.500,00-4.999,99	50,00	
		5.000,00-9.999,99	100,00	
		10.000,00-24.999,99	250,00	
		25.000,00-49.999,99	500,00	
		50.000,00 and up	1.000,00	
	spot ma method eleven o out-of-t In addit created	ng previous day's closir rket as base price and u at-the-money price leve different (one at-the-mon he-money) strike price le tion to standard strike p by users with the stri bove 20% of minimum/r	sing theoretical price ls are determined. Co ney, two in-the-mone wels are opened. prices, flexible contra- tike prices which a	calculation ntracts with y and eight acts can be re between
Trading Hours	Trading	Hours are in Appendix-	3.	
Collateral and	-	ed according to Clearing		
Margining Rules				
D. BIST 30 Futures Con	1			
Underlying Asset		) Price Index	. 10 1 1 .	
Contract Size		t size for the index futur e, BIST-30 Index* TR` 0.00).		
Price Quotation and Minimum Price Tick	underly Market	order book, prices are ing asset. In other words are entered on the basis he underlying asset.	, the offers for index	futures in the
	the co example 1 contra	e:10,240.00, 10,240.00 e ect and its multiples.	num price tick is tc.). Quantity offers a	s 1.00 (for are entered as
Contract Months	with the shall be months	y, April, June, August, ee different expiration m traded concurrently. If l , an extra contract with launched.)	nonths nearest to the c December is not one of	eurrent month of those three
Settlement	Cash se	ttlement		

Deiler Cettlement D'	The deiler actilement mine and from 1.4.
Daily Settlement Price	The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:
	<ul> <li>price tick:</li> <li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> </ul>
	prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	<ul><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	The final settlement price of BIST 30 futures contracts shall be calculated by weighting of the time weighted average of index values of the last 30 minutes of continuous auction in the equity market and closing price of the index with 80% and 20%, respectively. The calculated weighted average is rounded to the nearest price tick. The final settlement price will be determined by the Settlement Price Committee if the session and/or closing session in the spot
	market was partly or entirely closed, or price was not discovered despite the fact that the market was open on the last trading day.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.

correspond to a price tick, the upper limit will be rounded to t	
lower price tick; and the lower limit, to the upper price tick.	
Trading HoursTrading Hours are in Appendix-3.	U
CollateralandIt is stated according to Clearing Legislation.Margining Rules	

Underlying Asset	BIST Liquid Banks Index
Contract Size	Contract size for the index futures is 10 underlying securities. (For example, BIST Liquid Banks Futures Index* TRY $10 = (10,240.00)$ )* $10 = \text{TRY } 102,400.00$ ).
Price Quotation and Minimum Price Tick	On the order book, prices are shown on the basis of 1 unit of underlying asset. In other words, the offers for index futures in the Market are entered on the basis of the price given on the basis of 1 unit of the underlying asset.
	Index value is entered into the trading system with two digits after the comma, and the minimum price tick is 1.00 (for example:10,240.00, 10,240.00 etc.). Quantity offers are entered as 1 contract and its multiples.
Contract Months	February, April, June, August, October and December (Contracts with three different expiration months nearest to the current month shall be traded concurrently. If December is not one of those three months, an extra contract with an expiration month of December shall be launched.)
Settlement	Cash settlement
Daily Settlement Price	<ul> <li>The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:</li> <li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session, the weighted average price of all the trades performed during the session, the weighted average price of all the trades performed during the session,</li> </ul>

E. BIST Liquid Banks Futures Contract

	<ul> <li>d) If no trades were performed during the session, the settlement price of the previous day,</li> </ul>
	will be determined as the daily settlement price.
	If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	<ul><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	The final settlement price of BIST Liquid Banks futures contracts shall be calculated by weighting of the time weighted average of index values of the last 30 minutes of continuous auction in the equity market and closing price of the index with 80% and 20%, respectively. The calculated weighted average is rounded to the nearest price tick.
	The final settlement price will be determined by the Settlement Price Committee if the session and/or closing session in the spot market was partly or entirely closed, or price was not discovered despite the fact that the market was open on the last trading day.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in setting the daily price limits. For the other days, base price is the settlement price of the previous day. Base price for the contracts that are traded at Evening Session is the settlement price that is calculated at the end of Normal Session.
	Daily price limit is equal to $\pm 15\%(*)$ of the base price in the Normal Session and $\pm 3\%$ of the base price in the Evening Session for each contract. If the upper or lower limit so calculated does not

	correspond to a price tick, the upper limit will be rounded to the
	lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in Appendix-3.
Collateral an	I It is stated according to Clearing Regulation.
Margining Rules	

Underlying Asset	BIST Liquid 10 Ex Banks Index		
Contract Size	Contract size for the index futures is 10 underlying securities. (For example, BIST Liquid 10 Ex Banks Index* TRY $10 = (10,240.00)$		
	10 = TRY  102,400.00.		
Price Quotation and Minimum Price Tick	On the order book, prices are shown on the basis of 1 unit of underlying asset. In other words, the offers for index futures in the Market are entered on the basis of the price given on the basis of 1 unit of the underlying asset.		
	Index value is entered into the trading system with two digits after the comma, and the minimum price tick is 1.00 (for example:10,240.00, 10,240.00 etc.). Quantity offers are entered as 1 contract and its multiples.		
Contract Months	February, April, June, August, October and December (Contracts with three different expiration months nearest to the current month shall be traded concurrently. If December is not one of those three months, an extra contract with an expiration month of December shall be launched.)		
Settlement	Cash settlement		
Daily Settlement Price	The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick: a) The weighted average price of all the trades performed		
	<ul> <li>within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session, the session,</li> </ul>		
	<ul><li>d) If no trades were performed during the session, the settlement price of the previous day,</li><li>will be determined as the daily settlement price.</li></ul>		
	If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.		

### F. BIST Liquid 10 Ex Banks Futures Contract

	a) The average of the best buy and sell quotations at the end of
	<ul><li>the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	The final settlement price of BIST Liquid 10 Ex Banks futures contracts shall be calculated by weighting of the time weighted average of index values of the last 30 minutes of continuous auction in the equity market and closing price of the index with 80% and 20%, respectively. The calculated weighted average is rounded to the nearest price tick. The final settlement price will be determined by the Settlement Price Committee if the session and/or closing session in the spot market was partly or entirely closed, or price was not discovered
Last Trading Day	despite the fact that the market was open on the last trading day. Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in setting the daily price limits. For the other days, base price is the settlement price of the previous day. Base price for the contracts that are traded at Evening Session is the settlement price that is calculated at the end of Normal Session.
	Daily price limit is equal to $\pm 15\%(*)$ of the base price in the Normal Session and $\pm 3\%$ of the base price in the Evening Session for each contract. If the upper or lower limit so calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in Appendix-3.
Collateral and	It is stated according to Clearing Regulation.
Margining Rules	
r) The daily price limit of BI	ST Index futures contract is applied 10% until a second notice, according

## G. BIST Sustainability 25 Futures Contract

Underlying Asset BIST Sustainability 25 Index
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Contract Size	Contract size for the index futures is 10 underlying securities. (For example, XSD25 Index* TRY $10 = (5,640.00)*10 = TRY$ 56,400.00).
Price Quotation and Minimum Price Tick	On the order book, prices are shown on the basis of 1 unit of underlying asset. In other words, the offers for index futures in the Market are entered on the basis of the price given on the basis of 1 unit of the underlying asset.
	Index value is entered into the trading system with two digits after the comma, and the minimum price tick is 1.00 (for example:10,240.00, 10,240.00 etc.). Quantity offers are entered as 1 contract and its multiples.
Contract Months	February, April, June, August, October and December (Contracts with three different expiration months nearest to the current month shall be traded concurrently. If December is not one of those three months, an extra contract with an expiration month of December shall be launched.)
Settlement	Cash settlement
Daily Settlement Price	<ul> <li>The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:</li> <li>e) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>f) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>g) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>g) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>h) If no trades were performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> <li>If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.</li> <li>c) The average of the best buy and sell quotations at the end</li> </ul>
	<ul><li>of the session,</li><li>d) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.

Expiry Day (Final) Settlement Price	The final settlement price of XSD25 Index futures contracts shall be calculated by weighting of the time weighted average of index values of the last 30 minutes of continuous auction in the equity market and closing price of the index with 80% and 20%, respectively. The calculated weighted average is rounded to the nearest price tick. The final settlement price will be determined by the Settlement Price Committee if the session and/or closing session in the spot market was partly or entirely closed, or price was not discovered despite the fact that the market was open on the last trading day.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in setting the daily price limits. For the other days, base price is the settlement price of the previous day. Base price for the contracts that are traded at Evening Session is the settlement price that is calculated at the end of Normal Session. Daily price limit is equal to $\pm 15\%(*)$ of the base price in the Normal Session and $\pm 3\%$ of the base price in the Evening Session for each contract. If the upper or lower limit so calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in Appendix-3.
Collateral and Margining Rules	It is stated according to Clearing Legislation.

Underlying Asset	USD/TRY Parity	
Option Class	Call and Put Options	
Exercise Style	European; an option may only be exercised on the expiry date.	
Contract Size	1,000 USD	
Price Quotation and	Prices shall be entered for 1,000 USD as the premium value in	
Minimum Price Tick	terms of Turkish Lira significant to one decimal. (Example: 20.1,	
	20.2 etc.) Minimum price tick is 0.1. Quantity quotations are	
	entered as one contract and its multiples.	

## H. Physically Delivered USD/TRY Option Contracts

Contract Months	All calendar months (2 consecutive months - the current contract month and the next calendar months shall be concurrently traded)
	In addition to standard contract months, flexible contracts can be
	created for a maximum period of the expiry day up to 180 days by
	users.
Settlement	Physically delivery
Daily Settlement Price	The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick: a) The weighted average price of all the trades performed
	<ul> <li>within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>a) If less than 10 trades were performed during the session</li> </ul>
	c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,
	d) If no trades were performed during the session, the settlement price of the previous day,
	will be determined as the daily settlement price.
	If the daily settlement price cannot be calculated with the methods above by the end of the session, or the prices calculated do not reflect the market correctly, the Exchange may determine the daily settlement price in consideration of theoretical price, the previous day's settlement price or the best bid and ask prices at the end of the session.
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Last Trading Day	Last business day of the standard contract month. Last trading day
	is the expiration date for flexible contracts.
	In case domestic markets are closed for half day due to an official
	holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the standard contract month. Expiry day is the expiration date for flexible contracts.
	In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	Settlement period is T+1 for physical delivery. In case of US Dollar holidays or domestic markets are closed for half day due to an official holiday, settlement transactions are not realized.
	Premiums paid are deducted from the accounts starting from the end of T day, while premiums received are added to the accounts by T day.
Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for

		trading, and used in setting the daily price limits. For the other days, base price is the settlement price of the previous day.			
		Daily	price limit is appl	ied as stated in Append	dix 14.
Strike Prices		Strike in the	prices of the phys	ically delivered USD/7 hall be determined in	<b>FRY</b> option contracts
			Strike Price Intervals (TRY)	Strike Price Increments (TRY)	
			1-99	1	-
			100-249	2	
			250-499	5	-
			500-999	10	
			1.000-2.499	25	
			2.500-4.999	50	
			5.000-9.999	100	
			10.000-24.999	250	
			25.000-49.999	500	
			50.000 and up	1.000	
		annou calcula Contra each c In add created below	nced by CBRT ation method, at- acts with at-the-n ontract months. lition to standard d by users with /above 100% of th		g theoretical price els are determined. els are opened for e contracts can be
Trading Hours Collateral			ng Hours are in <u>Ar</u> ated according to	<u>opendix-3</u> . Clearing Legislation.	
Margining Rules	anu	1t 15 St	ateu accorunig lo	Cleaning Legislation.	

### I. USD/TRY Options Contract

COD/INI Options Co	
Underlying Asset	USD/TRY Parity
Option Class	Call and Put Options
Exercise Style	European; an option may only be exercised on the expiry date.
Contract Size	1,000 USD
Price Quotation and	Prices shall be entered for 1,000 USD as the premium value in
Minimum Price Tick	terms of Turkish Lira significant to one decimal. (Example: 20.1,

	20.2 etc.) Minimum price tick is 0.1. Quantity quotations are entered as one contract and its multiples.
Contract Months	All calendar months (3 consecutive months - the current contract month and the next two calendar months shall be concurrently traded)
	In addition to standard contract months, flexible contracts can be created for a maximum period of the expiry day up to 180 days by users.
Settlement	Cash settlement
Daily Settlement Price	The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:
	a)The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,
	b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,
	c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,
	<ul><li>d) If no trades were performed during the session, the settlement price of the previous day,</li><li>will be determined as the daily settlement price.</li></ul>
	If the daily settlement price cannot be calculated with the methods above by the end of the session, or the prices calculated do not reflect the market correctly, the Exchange may determine the daily settlement price in consideration of theoretical price, the previous day's settlement price or the best bid and ask prices at the end of the session.
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final)	For call options
Settlement Price	Final settlement price is calculated as the difference between the value of multiplying the average of USDollar selling and buying rate announced by CBRT at 15:30 of the last trading day by 1,000 and the option contract's strike price. The final value is rounded to the nearest price tick.
	For put options
	Final settlement price is calculated as the difference between the option contract's strike price and the value of multiplying the average of USDollar selling and buying rate announced by CBRT

	at 15:30 of the last trading day by 1,000. The final value is rounded to the nearest price tick.		
	If the related selling rate is not announced by CBRT on the last trading day, the final settlement price shall be determined by the Settlement Price Committee.		
Last Trading Day	<ul> <li>Last business day of the standard contract month. Last trading day is the expiration date for flexible contracts.</li> <li>In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.</li> </ul>		
Expiry Day	Last business day of the standard contract month. Expiry day is the expiration date for flexible contracts. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.		
Settlement Period	T+1 (first day following the expiry date) Premiums paid are deducted from the accounts starting from the end of T day, while premiums received are added to the accounts by T day.		
Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in setting the daily price limits. For the other days, base price is the settlement price of the previous day.		
Strike Prices	Daily price limit is applied as stated in <u>Appendix 14</u> .         Strike prices of the USD/TRY option contracts in the trading system shall be determined in accordance with the following table.		
	StrikePriceStrikePriceIntervals (TRY)Increments (TRY)		
	1-99 1		
	100-249 2		
	250-499 5		
	500-999 10		
	1.000-2.499 25		
	2.500-4.999 50		
	5.000-9.999 100		
	10.000-24.999 250		
	25.000-49.999 500		
	50.000 and up 1.000		
	By multiplying the average of USDollar selling and buying rate announced by CBRT at 15:30 of the last trading day by 1,000 and using theoretical price calculation method, at-the-money price levels are determined. Contracts with eleven different (one at-the-		

		money, two in-the-money and eight out-of-the-money) strike price levels are opened.
		In addition to standard strike prices, flexible contracts can be created by users with the strike prices which are between below/above 20% of minimum/maximum of the current strikes.
Trading Hours		Trading Hours are in <u>Appendix-3</u> .
Collateral	and	It is stated according to Clearing Legislation.
Margining Rules		

# J. Physically Delivered USD/TRY Futures Contracts

Underlying Asset	USD/TRY Parity
Contract Size	1,000 USD Dollar
Price Quotation and	Prices shall be quoted in terms of Turkish Lira per USD significant
Minimum Price Tick	to four decimals (Ex: 34.0430; 34.0440; 34.0450 etc.). The
	minimum price tick is 0.0010 TL. The minimum price tick
	corresponds to a value of 1 TL (0.0010 * 1,000) for a contract.
Contract Months	Cycle months are February, April, June, August, October and
	December (The current calender month, the next calender month,
	next nearest cycle month and expiration month of December of the
	same year shall be traded concurrently. If there are less than four
	contracts, an extra contract with an expiration month of December
	of the next year shall be launched.
	In addition to the standard contract months, flexible contracts can
	be created for a maximum period of the expiry day up to 364 days
	by users.
Settlement	Physically delivery
Daily Settlement Price	The daily settlement price used for updating accounts following the
	end of the session is calculated as follows and rounded to the nearest
	price tick:
	a) The weighted average price of all the trades performed
	within the last 10 minutes of the Normal Session,
	b) If less than 10 trades were executed in the last 10 minutes of
	the session, the weighted average price of the last 10 trades
	performed during the session,
	c) If less than 10 trades were performed during the session, the
	weighted average price of all the trades performed during the session,
	d) If no trades were performed during the session, the
	settlement price of the previous day,
	will be determined as the daily settlement price.
	If the daily settlement price cannot be calculated in accordance with
	the above methods by the end of the session, or it is decided that the
	prices calculated do not reflect the market correctly, the daily
	settlement price may be determined by using one or more of the
	following methods.

Expiry Day (Final) Settlement Price	<ul> <li>a) The average of the best buy and sell quotations at the end of the session,</li> <li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li> <li>Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.</li> <li>The average of USDollar selling and buying rate announced by CBRT at 15:30 of the last trading day. The Final Settlement Price</li> </ul>
Settlement Thee	shall be rounded to the nearest tick.
Last Trading Day	Last business day of the standard contract month. Last trading day is the expiration date for flexible contracts.
	In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the standard contract month. Expiry day is the expiration date for flexible contracts. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	Settlement period is T+1 for physical delivery. In case of US Dollar holidays or domestic markets are closed for half day due to an official holiday, settlement transactions are not realized. Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
Collateral and Margining Rules	It is stated according to Clearing Legislation.

## K. USD/TRY Futures Contract

Underlying Asset	USD/TRY Parity
Contract Size	1,000 USD Dollar
Price Quotation and	Prices shall be quoted in terms of Turkish Lira per USD significant
Minimum Price Tick	to four decimals (Ex: 34.0430; 34.0440; 34.0450 etc.). The
	minimum price tick is 0.0010 TL. The minimum price tick
	corresponds to a value of 1 TL (0.0010 * 1,000) for a contract.
Contract Months	All calendar months (The current contract month and the nearest 15
	contract months shall be concurrently traded).

-	
S. (1)	In addition to the standard contract months, flexible contracts can be created for a maximum period of the expiry day up to 364 days by users.
Settlement	Cash settlement
Daily Settlement Price	<ul> <li>The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick: <ul> <li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the settlement price of the previous day,</li> </ul> </li> <li>will be determined as the daily settlement price.</li> <li>If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.</li> <li>a) The average of the best buy and sell quotations at the end of the session,</li> <li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li> </ul>
Expiry Day (Final) Settlement Price	daily settlement price is under reserve.The average of USDollar selling and buying rate announced by CBRT at 15:30 of the last trading day. The Final Settlement Price shall be rounded to the nearest tick.
Last Trading Day	<ul><li>Last business day of the standard contract month. Last trading day is the expiration date for flexible contracts.</li><li>In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.</li></ul>
Expiry Day	Last business day of the standard contract month. Expiry day is the expiration date for flexible contracts.
	In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.

Settlement Period	T+1 (first day following the expiry date) Losses are deducted from
Settlement I enou	the accounts starting from the end of T day, while profits are added
	to the accounts by T day.
Base Price and Daily	Base price is the price determined by the Settlement Price
Price Limit	Committee on the day the relevant contract is introduced for
Thee Linit	trading, and used in calculating the daily price limits. For the other
	days, base price is the settlement price of the previous day.
	days, base price is the settlement price of the previous day.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for
	each contract. If the upper or lower limit calculated does not
	correspond to a price tick, the upper limit will be rounded to the
	lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
Collateral and	It is stated according to Clearing Legislation.
Margining Rules	It is stated according to creating Legislation.
L. EUR/TRY Futures Co	ontract
Underlying Asset	EUR/TRY Parity
Contract Size	1,000 EUR
Price Quotation and	Prices shall be quoted in terms of Turkish Lira per Euro significant
Minimum Price Tick	to four decimals (32.8320; 32.8330; 32.8340 etc.). The minimum
	price tick corresponds to a value of 1 TL (0.0010 * 1,000) for a
	contract.
Contract Months	Cycle months are February, April, June, August, October and
	December. Four contracts whose expiration months are the current
	month, the next calendar month, the next cycle month and
	December shall be concurrently traded. If there are less than four
	contracts, an extra contract with an expiration month of December
	of the next year shall be launched
Settlement	Cash settlement
Daily Settlement Price	The daily settlement price used for updating accounts following the
	end of the session is calculated as follows and rounded to the nearest
	price tick:
	a) The weighted average price of all the trades performed
	within the last 10 minutes of the Normal Session,
	b) If less than 10 trades were executed in the last 10 minutes
	of the session, the weighted average price of the last 10
	trades performed during the session,
	c) If less than 10 trades were performed during the session,
	the weighted average price of all the trades performed
	during the session,
	d) If no trades were performed during the session, the
	settlement price of the previous day,
	will be determined as the daily settlement price.
	If the daily settlement price cannot be calculated in accordance with
	the above methods by the end of the session, or it is decided that the
	prices calculated do not reflect the market correctly, the daily
	settlement price may be determined by using one or more of the following methods
	following methods.

	<ul><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	The average of Euro selling and buying rate announced by CBRT at 15:30 of the last trading day. The Last Settlement Price shall be rounded to the nearest tick.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick, and the lower limit to the upper price tick.
Trading Hours	lower price tick; and the lower limit, to the upper price tick. Trading Hours are in <u>Appendix-3</u> .
Collateral and Margining Rules	
M. EUR/USD Futures Co	ontract
Underlying Asset	EUR/USD Parity
Contract Size	1,000 EUR
Price Quotation and	Prices shall be quoted in terms of US Dollars per 1Euro significant
Minimum Price Tick	to four decimals (1.3050; 1.3051 etc.). The minimum price tick is 0.0001.
	The minimum price tick corresponds to a value of 0.1 USD for a contract.
Contract Months	Cycle months are February, April, June, August, October and December. Four contracts whose expiration months are the current month, the next calendar month, the next cycle month and December shall be concurrently traded. If there are less than four contracts, an extra contract with an expiration month of December of the next year shall be launched
Settlement	Cash settlement

Daily Settlement Price	The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:
	<ul> <li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> </ul>
	If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	<ul> <li>a) The average of the best buy and sell quotations at the end of the session,</li> <li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract menths of the contract.</li> </ul>
	contract months of the contract. Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the
	daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	Indicative EUR/USD Cross Rate announced CBRT at 15:30 on the last trading day. The Last Settlement Price shall be rounded to the nearest tick.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not

	correspond to a price tick, the upper limit will be rounded to the
	lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
Collateral and	It is stated according to Clearing Legislation.
Margining Rules	6 · · · · · · · · · · · · · · · · · · ·
Exchange Rate of Dollar	The calculations related to this contract for converting the values in
5	US Dollars to Turkish Lira are based on US Dollar buying rate
	announced by CBRT at 3:30 pm. If deemed necessary or in case US
	Dollar rate is not announced by CBRT, the exchange rate of Dollar
	may be updated using the exchange rates in the spot market.
N. RUB/TRY Futures Co	ontract
Underlying Asset	RUB/TRY Parity
Contract Size	100,000 RUB
Price Quotation and	Prices shall be quoted in terms of Turkish Lira per Russian Ruble
Minimum Price Tick	significant to five decimals.
	The minimum price tick is $0.00001 (0.00001*100,000 = 1 \text{ TRY} \text{ for})$
	each contract)
	Sample quote: TRY 0.06432, TRY 0.06579, TRY 0.06698
Contract Months	Cycle months are February, April, June, August, October and
	December. Four contracts whose expiration months are the current
	month, the next calendar month, the next cycle month and
	December shall be concurrently traded. If there are less than four
	contracts, an extra contract with an expiration month of December
	of the next year shall be launched.
Settlement	Cash settlement
Daily Settlement Price	The daily settlement price is calculated as follows at the end of the session and rounded to the nearest price tick:
	a) The volume weighted average price of all the trades executed within the last 10 minutes of the Normal Session,
	b) If less than 10 trades were realized in the last 10 minutes of the Normal Session, the volume weighted average price of the last 10 trades executed during the session,
	c) If less than 10 trades were realized in the session, the volume weighted average price of all the trades executed during the session,
	d) If no trades were realized during the session, the previous day settlement price is determined as the daily settlement price.
	If the daily settlement price cannot be calculated with the methods above by the end of the session, or the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	a) The average of the best buy and sell quotations at the end of the session,
	b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.
	Trades executed on Negotiated Deals Market will not be taken into consideration in the above calculations. The Settlement Price

	Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	The average of RUB selling and buying rate announced by CBRT at 15:30 of the last trading day. The Last Settlement Price shall be rounded to the nearest tick.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from, profits are added to the accounts at the end of T day
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price change limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit so calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
Collateral and Margining Rules	It is stated according to Clearing Legislation.

### **O. CNH/TRY Futures Contract**

Underlying Asset	CNH/TRY Parity
Contract Size	10,000 CNH
Price Quotation and Minimum Price Tick	Prices shall be quoted in terms of Turkish Lira per Chinese Offshore Yuan significant to four decimals. The minimum price tick is 0.0001 (0.0001*10,000 = 1 TRY for each contract) Sample quote: TRY 0.5194, TRY 0.5299, TRY 0.5326
Contract Months	Cycle months are February, April, June, August, October and December. Four contracts whose expiration months are the current month, the next calendar month, the next cycle month and December shall be concurrently traded. If there are less than four contracts, an extra contract with an expiration month of December of the next year shall be launched.
Settlement	Cash settlement

Daily Settlement Price	The daily settlement price is calculated as follows at the end of the session and rounded to the nearest price tick:
	<ul> <li>a) The volume weighted average price of all the trades executed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were realized in the last 10 minutes of the Normal Session, the volume weighted average price of the last 10 trades executed during the session,</li> <li>c) If less than 10 trades were realized in the session, the volume weighted average price of all the trades executed during the session,</li> <li>d) If no trades were realized during the session, the previous day settlement price is determined as the daily settlement price.</li> </ul>
	If the daily settlement price cannot be calculated with the methods above by the end of the session, or the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	<ul><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trades executed by trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price (*)	The CNH/TRY rate calculated with exchange rate of USD/CNY (HK) announced by the Hong Kong Treasury Markets Association and average of USD/TRY selling and buying rates announced by CBRT at 15:30 of the last trading day.
	The Last Settlement Price shall be rounded to the nearest tick. If the final settlement price cannot be calculated due to public market holiday or any other reason the Settlement Price Committee will determine the final settlement price on the expiry day.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from, profits are added to the accounts at the end of T day
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price change limits. For

		the other days, base price is the settlement price of the previous
		day.
		Daily price limit is equal to $\pm 10\%$ of the base price determined for
		each contract. If the upper or lower limit so calculated does not
		correspond to a price tick, the upper limit will be rounded to the
		lower price tick; and the lower limit, to the upper price tick.
Trading Hours		Trading Hours are in <u>Appendix-3</u> .
Collateral	and	It is stated according to Clearing Legislation.
Margining Rules		

(\*) For the contracts with an expiration date later than December 31, 2024, the final settlement price shall be Offshore Chinese Yuan/Turkish Lira rate calculated by taking the average of bid and ask prices of US Dollar/Offshore Chinese Yuan rate announced by LSEG Data & Analytics Workspace as CNH= on the last trading day between 17:00:00-17:00:59 Istanbul Time and the average of USD/TRY selling and buying rates announced by CBRT at 15:30 of the last trading day.

The Last Settlement Price shall be rounded to the nearest price tick.

If the final settlement price cannot be calculated due to public market holiday or any other reason the Settlement Price Committee will determine the final settlement price on the expiry day (last trading day).

	1. GDI/USD Futures Contract		
Underlying Asset	GBP/USD Parity		
Contract Size	1,000 GBP		
Price Quotation and	Prices shall be quoted in terms of US Dollars per 1GBP significant		
Minimum Price Tick	to four decimals (1.2667 etc.). The minimum price tick is 0.0001.		
	The minimum price tick corresponds to a value of 0.1 USD for a		
	contract.		
Contract Months	Cycle months are February, April, June, August, October and		
	December. Six contracts whose expiration months are the current		
	month, the next calendar month, the next three cycle month and		
	December shall be concurrently traded. If there are less than six		
	contracts, an extra contract with an expiration month of December		
	of the next year shall be launched.		
Settlement	Cash settlement		
Daily Settlement Price	The daily settlement price used for updating accounts following the		
	end of the session is calculated as follows and rounded to the nearest		
	price tick:		
	a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,		
	b) If less than 10 trades were executed in the last 10		
	minutes of the session, the weighted average price of the		
	last 10 trades performed during the session,		
	c) If less than 10 trades were performed during the session,		
	the weighted average price of all the trades performed		
	during the session,		
	d) If no trades were performed during the session, the		
	settlement price of the previous day,		
	will be determined as the daily settlement price.		

P. GBP/USD Futures Contract

	If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	<ul><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	Indicative GBP/USD Cross Rate announced by CBRT at 15:30 on the last trading day. The Last Settlement Price shall be rounded to the nearest tick.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
CollateralandMargining Rules	It is stated according to Clearing Legislation.
Exchange Rate of Dollar	The calculations related to this contract for converting the values in US Dollars to Turkish Lira are based on US Dollar buying rate announced by CBRT at 3:30 pm. If deemed necessary or in case US Dollar rate is not announced by CBRT, the exchange rate of Dollar may be updated using the exchange rates in the spot market.

# **Q.** Gold Futures Contract

Underlying Asset	Pure gold
Contract Size	1 gram

Price Quotation and	Value of 1 gram gold shall be quoted in terms of Turkish Lira
Minimum Price Tick	significant to two decimals. The minimum price tick is TRY 0.10
Contract Months	February, April, June, August, October and December (Contracts
	with three different months nearest to the current month shall be
	traded concurrently.)
Settlement	Cash settlement
Daily Settlement Price	The daily settlement price used for updating accounts following the
Dairy Settement Thee	end of the session is calculated as follows and rounded to the nearest price tick:
	a) The weighted average price of all the trades performed
	within the last 10 minutes of the Normal Session,
	<ul><li>b) If less than 10 trades were executed in the last 10 minutes of</li></ul>
	,
	the session, the weighted average price of the last 10 trades
	performed during the session,
	c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,
	d) If no trades were performed during the session, the
	settlement price of the previous day,
	will be determined as the daily settlement price.
	while determined as the daily settlement price.
	If the daily settlement price cannot be calculated in accordance with
	the above methods by the end of the session, or it is decided that the
	prices calculated do not reflect the market correctly, the daily
	settlement price may be determined by using one or more of the
	following methods.
	Tonowing methods.
	a) The average of the best buy and sell quotations at the end of the session,
	b) Theoretical prices are calculated considering spot price of
	the underlying asset or the daily settlement price for other
	contract months of the contract.
	contract months of the contract.
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the
	daily settlement price is under reserve.
Expiry Day (Final)	LBMA Gold Price P.M. (released by ICE Benchmark
Settlement Price	Administration in the afternoon), shall be converted to TRY/gram
	price and called as the final settlement price. In calculations, the
	average of US Dollar selling and buying rate announced by CBRT
	at 15:30 (for USD/TRY conversion) and 31.1035 (for ounce/gram
	conversion) shall be used as the conversion factors. If the afternoon
	fixing price is not released, the gold fixing price (USD/ounce)
	released in the morning (A.M. price) shall be used as the final
	settlement price. If the fixing prices are not released due to official
	holidays or another reason, the average of bid and ask gold prices
	(USD/ounce) announced on the international spot market at 17:00
	(İstanbul time) shall be used. The final settlement price found by the
	above methods is rounded to the nearest price tick.
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Last Trading Day	Last business day of the contract month. In case domestic markets
	are closed for half day due to an official holiday, last trading day
	shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets
	are closed for half day due to an official holiday, expiry day shall be
	the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from
	the accounts starting from the end of T day, while profits are added
	to the accounts by T day.
Base Price and Daily	Base price is the price determined by the Settlement Price
Price Limit	Committee on the day the relevant contract is introduced for
	trading, and used in calculating the daily price limits. For the other
	days, base price is the settlement price of the previous day.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for
	each contract. If the upper or lower limit calculated does not
	correspond to a price tick, the upper limit will be rounded to the
	lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
Collateral and	It is stated according to Clearing Legislation.
Margining Rules	

# **R. USD/Ounce Gold Futures Contract**

Underlying Assot	Duro gold
Underlying Asset	Pure gold
Contract Size	1 ounce of gold
Price Quotation and	Value of 1 ounce gold shall be quoted in terms of US Dollars
Minimum Price Tick	significant to two decimals. (Example:2,450.10 or 2,450.20) The
	minimum price tick is 0.10. Value of one tick corresponds to 0.10
	US Dollars.
Contract Months	February, April, June, August, October and December (Contracts
	with three different months nearest to the current month shall be
	traded concurrently)
Settlement	Cash settlement
Daily Settlement Price	The daily settlement price used for updating accounts following
	the end of the session is calculated as follows and rounded to the
	nearest price tick:
	a) The weighted average price of all the trades performed
	within the last 10 minutes of the Normal Session,
	b) If less than 10 trades were executed in the last 10 minutes
	of the session, the weighted average price of the last 10
	trades performed during the session,
	c) If less than 10 trades were performed during the session,
	the weighted average price of all the trades performed
	during the session,
	d) If no trades were performed during the session, the
	settlement price of the previous day,
	will be determined as the daily settlement price.
	will be determined as the daily settlement price.

	If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	<ul> <li>a) The average of the best buy and sell quotations at the end of the session,</li> <li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li> </ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	LBMA Gold Price P.M. (released by ICE Benchmark Administration in the afternoon), shall be used as the final settlement price. If the afternoon fixing price is not released, the gold fixing price released (USD/ounce) in the morning (A.M. price) shall be used as the final settlement price.
	If the fixing prices are not released due to official holidays or another reason, the average of bid and ask gold prices (USD/ounce) announced on the international spot market at 17:00 (İstanbul time) shall be used. The final settlement price found by the above methods is rounded to the nearest price tick.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Base price for evening session contracts is the settlement price calculated at the end of normal session.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
Collateral and Margining Rules	It is stated according to Clearing Legislation.
Exchange Rate of Dollar	The calculations related to this contract for converting the values
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	in US Dollars to Turkish Lira are based on US Dollar buying rate
	announced by CBRT at 3:30 pm. If deemed necessary or in case
	US Dollar rate is not announced by CBRT, the exchange rate of
	Dollar may be updated using the exchange rates in the spot market.

## S. USD/Ounce Silver Futures Contracts

Underlying Asset	Pure silver
Contract Size	10 ounce of silver
Price Quotation and	Value of 1 ounce silver shall be quoted in terms of US Dollars
Minimum Price Tick	significant to three decimals.(Example:19.010 or 19.020) The
	minimum price tick is 0.010.
	Value of one tick corresponds to 0.10 US Dollars.
Contract Months	February, April, June, August, October and December. Contracts
	with three different months nearest to the current month shall be
	traded concurrently.
Settlement	Cash settlement
Daily Settlement Price	The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:
	a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,
	b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,
	c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,
	d) If no trades were performed during the session, the settlement price of the previous day, will be determined as the daily settlement price. If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	<ul><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering and price of</li></ul>
	b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	LBMA Silver Price (released by ICE Benchmark Administration) of the last trading day, shall be used as the final settlement price.

	If the fixing prices are not released due to official holidays or another reason, the average of bid and ask silver prices (USD/ounce) announced on the international spot market at 17:00 (İstanbul time) shall be used.
	The final settlement price found by the above methods is rounded to the nearest price tick.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Base price for evening session contracts is the settlement price calculated at the end of normal session. Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u>
Collateral and Margining Rules	It is stated according to Clearing Legislation.
Exchange Rate of Dollar	The calculations related to this contract for converting the values in US Dollars to Turkish Lira are based on US Dollar buying rate announced by CBRT at 3:30 pm. If deemed necessary or in case US Dollar rate is not announced by CBRT, the exchange rate of Dollar may be updated using the exchange rates in the spot market.

## T. USD/Ounce Platinum Futures Contract

Underlying Asset	Platinum.
Contract Size	1 ounce of platinum.
Price Quotation and	Value of 1 ounce platin shall be quoted in terms of US Dollars
Minimum Price Tick	significant to two decimals (Example: 1,058.10 or 1,058.20). The
	minimum price tick is 0.10. Value of one tick corresponds to 0.10
	US Dollars.
Contract Months	February, April, June, August, October and December (Contracts
	with three different months nearest to the current month shall be
	traded concurrently)
Settlement	Cash settlement

Daily Settlement Price	<ul> <li>The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:</li> <li>e) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>f) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>g) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>g) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>h) If no trades were performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> <li>If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.</li> <li>c) The average of the best buy and sell quotations at the end of the session,</li> </ul>
Expiry Day (Final) Settlement Price	<ul> <li>d) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li> <li>Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.</li> <li>The final settlement price of USD/Ounce Platinum futures contracts shall be calculated by taking the time weighted average of USD/Ounce Platinum prices (Mid Price) announced by Refinitiv with the code of XPT= on the last trading day between 17:00:00 - 17:00:59 (İstanbul Time).</li> <li>The final settlement price found by the above methods is rounded to the nearest price tick.</li> <li>If the prices are not released due to official holidays or another reason, absence of enough data or it is decided that the prices calculated do not reflect the market correctly, the final settlement price is determined by the Settlement Price Committee.</li> </ul>

Expiry Day Settlement Period Base Price and Daily Price Limit	<ul> <li>are closed for half day due to an official holiday, last trading day shall be the preceding business day.</li> <li>Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.</li> <li>T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.</li> <li>Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for</li> </ul>
Settlement Period Base Price and Daily	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day. T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for
Settlement Period Base Price and Daily	<ul> <li>are closed for half day due to an official holiday, expiry day shall be the preceding business day.</li> <li>T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.</li> <li>Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for</li> </ul>
Base Price and Daily	<ul> <li>be the preceding business day.</li> <li>T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.</li> <li>Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for</li> </ul>
Base Price and Daily	<ul><li>T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.</li><li>Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for</li></ul>
Base Price and Daily	<ul><li>the accounts starting from the end of T day, while profits are added to the accounts by T day.</li><li>Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for</li></ul>
•	added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for
•	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for
•	Committee on the day the relevant contract is introduced for
Price Limit	
	trading, and used in calculating the daily price limits. For the
	other days, base price is the settlement price of the previous day.
	Base price for evening session contracts is the settlement price
	calculated at the end of normal session.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for
	each contract. If the upper or lower limit calculated does not
	correspond to a price tick, the upper limit will be rounded to the
	lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in Appendix-3.
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Collateral and	It is stated according to Clearing Legislation.
Margining Rules	
Exchange Rate of	The calculations related to this contract for converting the values
Dollar	in US Dollars to Turkish Lira are based on US Dollar buying rate
	announced by CBRT at 3:30 pm. If deemed necessary or in case
	US Dollar rate is not announced by CBRT, the exchange rate of
	Dollar may be updated using the exchange rates in the spot
	market.
CollateralandMargining RulesExchangeRateOf	<ul> <li>each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.</li> <li>Trading Hours are in Appendix-3.</li> <li>It is stated according to Clearing Legislation.</li> <li>The calculations related to this contract for converting the value in US Dollars to Turkish Lira are based on US Dollar buying rat announced by CBRT at 3:30 pm. If deemed necessary or in cas US Dollar rate is not announced by CBRT, the exchange rate of Dollar may be updated using the exchange rates in the spontant.</li> </ul>

# U. USD/Ounce Palladium Futures Contract

Underlying Asset	Palladium.
Contract Size	1 ounce palladium.
Price Quotation	Value of 1 ounce platin shall be quoted in terms of US Dollars significant
and Minimum	to two decimals (Example: 1,090.10 or 1,090.20). The minimum price
Price Tick	tick is 0.10. Value of one tick corresponds to 0.10 US Dollars.
<b>Contract Months</b>	February, April, June, August, October and December (Contracts with
	three different months nearest to the current month shall be traded
	concurrently)
Settlement	Cash settlement
Daily Settlement	The daily settlement price used for updating accounts following the end
Price	of the session is calculated as follows and rounded to the nearest price
	tick:

	<ul> <li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the settlement price of the previous day, will be determined as the daily settlement price.</li> </ul>
	above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.
	<ul><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	The final settlement price of USD/Ounce Palladium futures contracts shall be calculated by taking the time weighted average of USD/Ounce Palladium prices (Mid Price) announced by Refinitiv with the code of XPD= on the last trading day between 17:00:00 - 17:00:59 (İstanbul Time).
	The final settlement price found by the above methods is rounded to the nearest price tick.
	If the prices are not released due to official holidays or another reason, absence of enough data or it is decided that the prices calculated do not reflect the market correctly, the final settlement price is determined by the Settlement Price Committee.
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.

Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Base price for evening session contracts is the settlement price calculated at the end of normal session.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in Appendix-3.
Collateral and Margining Rules	It is stated according to Clearing Legislation.
Exchange Rate of	The calculations related to this contract for converting the values in US
Dollar	Dollars to Turkish Lira are based on US Dollar buying rate announced
	by CBRT at 3:30 pm. If deemed necessary or in case US Dollar rate is
	not announced by CBRT, the exchange rate of Dollar may be updated using the exchange rates in the spot market.

# V. USD/Tonne Copper Futures Contract

Underlying Asset	Copper
Contract Size	0.1 tonne
Price Quotation	Value of 1 tonne copper shall be quoted in terms of US Dollars significant
and Minimum	to two decimals (Example: 10,058.50; 10,059.00). The minimum price
Price Tick	tick is 0.50. Value of one tick corresponds to 0.05 US Dollars.
<b>Contract Months</b>	February, April, June, August, October and December (Contracts with
	three different months nearest to the current month shall be traded
	concurrently).
Settlement	Cash settlement.
Method	
Daily Settlement	The daily settlement price used for updating accounts following the end
Price	of the session is calculated as follows and rounded to the nearest price
	tick:
	a) The weighted average price of all the trades performed within
	the last 10 minutes of the Normal Session,
	b) If less than 10 trades were executed in the last 10 minutes of the
	session, the weighted average price of the last 10 trades performed
	during the session,
	c) If less than 10 trades were performed during the session, the
	weighted average price of all the trades performed during the
	session,
	d) If no trades were performed during the session, the settlement
	price of the previous day,
	will be determined as the daily settlement price.
	5 1

	If the daily settlement price cannot be calculated in accordance with the
	If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices
	calculated do not reflect the market correctly, the daily settlement price
	may be determined by using one or more of the following methods.
	may be determined by using one of more of the following methods.
	a) The average of the best buy and sell quotations at the end of the session,
	b) Theoretical prices are calculated considering spot price of the
	underlying asset or the daily settlement price for other contract months of the contract.
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final)	The final settlement price on the last trading day is LME Official
Settlement Price	Settlement Price for Copper which is announced by London Metal
	Exchange as Tonne/USD for Grade A Copper.
	If the prices are not released due to official holidays or another reason, absence of enough data, the last LME Official Settlement Price is used as
	the final settlement price. It is decided that the prices calculated do not
	reflect the market correctly on the last trading day, the final settlement
	price is determined by the Settlement Price Committee.
	price is determined by the betternent i free commutee.
	The final settlement price found by the above methods is rounded to the nearest price tick.
Last Trading Day	Last business day of the contract month. In case domestic markets are
	closed for half day due to an official holiday, last trading day shall be the
	preceding business day.
Expiry Day	Last business day of the contract month. In case domestic markets are
	closed for half day due to an official holiday, expiry day shall be the
	preceding business day.
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the
	accounts starting from the end of T day, while profits are added to the
	accounts by T day.
Base Price and	Base price is the price determined by the Settlement Price Committee on the day, the relevant contract is introduced for trading, and used in
Daily Price Limit	the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the
	settlement price of the previous day. Base price for evening session
	contracts is the settlement price calculated at the end of normal session.
	contacts is the sectoment price calculated at the ond of normal bession.
	Daily price limit is equal to $\pm 10\%$ of the base price determined for each
	contract. If the upper or lower limit calculated does not correspond to a
	price tick, the upper limit will be rounded to the lower price tick; and the
	lower limit, to the upper price tick.
Trading Hours	Trading Hours are in Appendix-3.
Collateral and	It is stated according to Clearing Regulation.
Margining Rules	

<b>Exchange Rate of</b>	The calculations related to this contract for converting the values in US
Dollar	Dollars to Turkish Lira are based on US Dollar buying rate announced by
	CBRT at 3:30 pm. If deemed necessary or in case US Dollar rate is not
	announced by CBRT, the exchange rate of Dollar may be updated using
	the exchange rates in the spot market.

### W. Yearly Base-Load Electricity Futures Contracts

Underlying Asset	The basic arithmetic average of the Unconstrained Market Clearing Prices announced by spot market operator for each hour of the contract month.		
Contract Size	<ul> <li>Number of hours in the maturity period x 0.1 MWh</li> <li>Number of hours in the maturity period: Number of days in the maturity period x 24.</li> <li>The contract size shall vary depending on the number of days in the contract period and summer/winter time.</li> <li>Example:</li> <li>The contract size for normal years is 876 MWh (365x24x0.1MWh), for leap years is 878.4 MWh (366x24x0.1MWh).</li> </ul>		
Price Quotation and Minimum Price Tick	<ul> <li>1 MWh of electricity shall be quoted in terms of Turkish lira significant to two decimals. (Example: 121.20)</li> <li>The minimum price tick is 0.10 (Example: Tick value is TRY 87.6 for the contracts with size 876 MWh, TRY 87.84 for the contracts with size 878.4 MWh.)</li> </ul>		
Contract Period	The nearest 2 year's (following the current year) contracts shall be concurrently traded.		
Settlement	Cash settlement		
Daily Settlement Price	<ul> <li>Cash settlement</li> <li>The daily settlement price is calculated as follows at the end of the session and rounded to the nearest price tick: <ul> <li>a) The volume weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the volume weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were executed during the session, the volume weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the settlement price of the previous day,</li> </ul> </li> <li>Will be determined as the daily settlement price.</li> </ul>		
	the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily		

	settlement price may be determined by using one or more of the following methods.
	<ul><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	Since Yearly contracts are subject to the cascading procedures, final settlement price is not calculated.
Last Trading Day	Third business day before the maturity period starts. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.
Expiry Day	Since Yearly contracts are subject to the cascading procedures, expiry day is the last trading day.
Settlement Period	T+1 Losses are deducted from the accounts at the end of T day, profits are added to the accounts on T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day.
	Daily price limit is equal to $\pm 20\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in Appendix-3.
Collateral and Margining Rules	It is stated according to Clearing Legislation.
Cascading	Positions in yearly contracts are automatically transferred to quarterly contracts on the last trading day, based on the daily settlement price. For example, the positions in the F_ELCBASY18 contract are transferred to the F_ELCBASQ118, F_ELCBASQ218, F_ELCBASQ318, F_ELCBASQ418 contracts on the last trading day of the contract in December, 2017.
	Electricity Futures Contract
Underlying Asset	The basic arithmetic average of the Unconstrained Market Clearing Prices announced by spot market operator for each hour of the contract month.

	<ul> <li>The contract size shall vary depending on the number of days in the contract month and summer/winter time. For the day of transition from winter time to summer time, the number of hours shall be applied as 23. For the day of transition from summer time to winter time, the number of hours shall be applied as 25.</li> <li>Example:</li> <li>The contract size for first quarter is 216 MWh (90x24x0.1MWh), for leap years is 218.4 MWh,</li> <li>The contract size for second quarter is 218.4 MWh'dir (91x24x0.1MWh),</li> <li>The contract size for third quarter is 220.8 MWh'dir (92x24x0.1MWh)</li> <li>The contract size for fourth quarter is 220.8 MWh'dir (92x24x0.1MWh),</li> </ul>			
	These contract sizes shall not be applied for contract months in transition from winter time to summer time or vice versa			
Price Quotation and Minimum Price Tick	transition from winter time to summer time or vice versa. 1 MWh of electricity shall be quoted in terms of Turkish lira significant to two decimals. (Example: 121.20)			
	The minimum price tick is 0.10 (Example: Tick value is TRY 21.6 for the contracts with size 216 MWh, TRY 21.84 for the contracts with size 218.4 MWh, TRY 22.08 for the contracts with size 220.8 MWh.)			
Contract Period	The current contract year's and the nearest 2 year's quarterly contracts shall be concurrently traded.			
	Q1 (Jan-Mar), Q2 (Apr-Jun), Q3 (Jul-Sep) ve Q4 (Oct-Dec).			
Settlement	Cash settlement			
Daily Settlement Price	<ul> <li>The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:</li> <li>a) The volume weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the volume weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the volume weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> </ul>			
	the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily			

	settlement price may be determined by using one or more of the following methods.	
	a) The average of the best buy and sell quotations at the end of the session,	
	<ul> <li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li> </ul>	
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.	
Expiry Day (Final) Settlement Price	Since Quarterly contracts are subject to the cascading procedures, final settlement price is not calculated.	
Maturity Period	Term specified in the contract code. (Example: The delivery period for the $F_ELCBASQ317$ contract is the third quarter of 2017).	
Last Trading Day	Last business day before the maturity period starts. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.	
Expiry Day	Since Quarterly contracts are subject to the cascading procedures, expiry day is the last trading day.	
Settlement Period	T+1 Losses are deducted from the accounts at the end of T day, profits are added to the accounts on T day.	
Base Price and Daily		
Price Limit	Committee on the day the relevant contract is introduced for	
	trading, and used in calculating the daily price limits. For the other	
	days, base price is the settlement price of the previous day.	
	Daily price limit is equal to $\pm 20\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.	
Trading Hours	Trading Hours are in Appendix-3.	
Collateral and	It is stated according to Clearing Legislation.	
Margining Rules		
Cascading	Positions in quarterly contracts are automatically transferred to monthly contracts on the last trading day, based on the daily settlement price.	
	For example, the positions in the F_ELCBASQ317 contract are transferred to the F_ELCBAS0717, F_ELCBAS0817, F_ELCBAS0917 contracts on the last trading day of the contract in June, 2017.	
Y. Base-Load Electricity		
Underlying Asset	The basic arithmetic average of the Unconstrained Market Clearing Prices announced by spot market operator for each hour of the contract month.	
Contract Size	Number of hours in the contract month x 0.1 MWh.	
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	<ul> <li>Number of hours in the contract month: Number of days in the contract month x 24.</li> <li>The contract size shall vary depending on the number of days in the contract month and summer/winter time. For the day of transition from winter time to summer time, the number of hours shall be applied as 23. For the day of transition from summer time to winter time, the number of hours shall be applied as 25. Example:</li> <li>The contract size for 30 day contract months is 72 MWh (30x24x0.1MWh),</li> <li>The contract size for 31 day contract months is 74.4 MWh (31x24x0.1MWh),</li> <li>The contract size for 28 day contract months is 67.2 MWh (28x24x0.1MWh),</li> <li>The contract size for 29 day contract month of February is 69.6 MWh (29x24x0.1MWh)</li> </ul>	
Price Quotation and	These contract sizes shall not be applied for contract months in transition from winter time to summer time or vice versa. 1 MWh of electricity shall be quoted in terms of Turkish lira	
Minimum Price Tick	significant to two decimals. (Example: 121.20)	
	The minimum price tick is 0.10 (Example: Tick value is TRY 7.2 for the contracts with size 72 MWh, TRY 7.44 for the contracts with size 74.4 MWh, TRY 6.72 for the contracts with size 67.2 MWh, TRY 6.96 for the contracts with size 69.6 MWh)	
Contract Months	7 months (The current contract month and the nearest 6 contract	
	months shall be concurrently traded)	
Settlement	Cash settlement	
Daily Settlement Price	<ul> <li>The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:</li> <li>e) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>f) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>g) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>h) If no trades were performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> <li>If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.</li> </ul>	

	<ul><li>c) The average of the best buy and sell quotations at the end of the session,</li><li>d) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>	
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.	
Expiry Day (Final) Settlement Price	The Last Settlement Price shall be the basic arithmetic average of the Unconstrained Market Clearing Prices announced by spot market operator for each hour of the contract month. The Last settlement price determined with the above-mentioned methods shall be rounded to nearest price tick.	
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.	
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.	
Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.	
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 20\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit to the upper price tick	
Trading Hours	lower price tick; and the lower limit, to the upper price tick. Trading Hours are in <u>Appendix-3</u> .	
Collateral and Margining Rules	It is stated according to Clearing Legislation.	
Z. SASX 10 Index Futur	es Contract	
Underlying Asset	Price Index named "The Sarajevo Stock Index 10" of the Sarajevo Stock Exchange	
Contract Size	SASX 10 Index value multiplied by 1 TRY.	
Price Quotation and Minimum Price Tick	On the order book, prices are shown on the basis of 1 unit of underlying asset. In other words, the offers in the Market are entered on the basis of the price given on the basis of 1 unit of the underlying asset.	

# BORSA İSTANBUL A.Ş. DERIVATIVES MARKET PROCEDURE HALKA AÇIK/PUBLIC

Contract Months	February, April, June, August, October and December. Contracts		
Contract Months	with two different expiration months nearest to the current month		
	shall be traded concurrently.		
Settlement	Cash settlement		
Daily Settlement Price	<ul> <li>The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick: <ul> <li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li> <li>b) If less than 10 trades were executed in the last 10 minutes of the session, the weighted average price of the last 10 trades performed during the session,</li> <li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the session,</li> <li>d) If no trades were performed during the session, the settlement price of the previous day,</li> <li>will be determined as the daily settlement price.</li> </ul> </li> <li>If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided tha the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the</li> </ul>		
	<ul><li>following methods.</li><li>a) The average of the best buy and sell quotations at the end of the session,</li><li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li></ul>		
	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.		
Expiry Day (Final) Settlement Price	The final settlement price of SASX 10 futures contracts shall be the closing price of the related index. This value is rounded to the nearest price tick, and called as the final settlement price. The final settlement price will be determined by the Settlement Price Committee if the spot market was entirely closed in the spot market that underlying security is traded, or price was not discovered or index value could not be calculated despite the fact that the market was open on the last trading day.		
Last Trading Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, last trading day shall be the preceding business day.		
Expiry Day	Last business day of the contract month. In case domestic markets are closed for half day due to an official holiday, expiry day shall be the preceding business day.		

Settlement Period	T+1 (first day following the expiry date) Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day.	
Base Price and Daily Price Limit		
	Daily price limit is equal to $\pm 15\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.	
Trading Hours	Trading Hours are in <u>Appendix-3</u> .	
Collateral and	It is stated according to Clearing Legislation.	
Margining Rules		
AA. 1 Month TLREF I		
Underlying	Turkish Lira Overnight Reference Rate (TLREF) announced by Borsa İstanbul.	
Contract Size	Nominal Value = TRY 1,000,000 $(22)$	
	Contract Size = $1,000,000 \times \left(\frac{30}{360}\right) \times 0.01 = 833$	
Price Quotation and Minimum Price Tick	Price is entered to the system as a three digit value of interest rate multiplied by 100. (Example: 20.050, 20.060 etc.) Minimum price tick is 0.010. The tick value is TRY 8.33.	
Contract Months	All calendar months (The current contract month and the nearest 6 contract months shall be concurrently traded)	
Settlement	Cash Settlement	
Daily Settlement Price	The daily settlement price used for updating accounts following the end of the session is calculated as follows and rounded to the nearest price tick:	
	<ul><li>a) The weighted average price of all the trades performed within the last 10 minutes of the Normal Session,</li><li>b) If less than 10 trades were executed in the last 10 minutes of the</li></ul>	
	<ul><li>session, the weighted average price of the last 10 trades performed during the session,</li><li>c) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the</li></ul>	
	<ul><li>session,</li><li>d) If no trades were performed during the session, the settlement price of the previous day,</li></ul>	
	will be determined as the daily settlement price.	
	If the daily settlement price cannot be calculated in accordance with the above methods by the end of the session, or it is decided that the prices calculated do not reflect the market correctly, the daily settlement price may be determined by using one or more of the following methods.	
	a) The average of the best buy and sell quotations at the end of the session,	
	<ul> <li>b) Theoretical prices are calculated considering spot price of the underlying asset or the daily settlement price for other contract months of the contract.</li> </ul>	

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	Trade reports will not be taken into consideration in the above calculations. The Settlement Price Committee's right to change the daily settlement price is under reserve.
Expiry Day (Final) Settlement Price	The final settlement price is calculated as follows and rounded to the nearest price tick:
	$\text{EDSP} = \left[\prod_{i=1}^{N_0} \left(1 + \frac{r_i \times n_i}{365}\right) - 1\right] \times \frac{365}{N} \times 100$
	N: The number of calendar days in delivery period $N_0$ : The number of business days in the calculation period $n_i$ : The number of calendar days in the relevant calculation period on which the rate is $r_i$
	$r_i$ : The overnight reference rate announced by Borsa İstanbul for <i>i</i> day
	The previous Turkish Lira Overnight Reference Rate may be used for days which the reference rate cannot be determined.
	The final settlement price will be determined by the Settlement Price Committee if the price is not determined with methods above or the calculated prices do not reflect the market accurately.
Delivery Period	Term specified in the contract code (Example: The delivery period for the F_TLREF1M1219 contract is December 2019).
Last Trading Day	Last business day of the delivery period.
Expiry Day	Last business day of the delivery period.
Settlement Period	T+1 Losses are deducted from the accounts at the end of T day, profits are added to the accounts on T day.
Base Price and Daily Price Limit	Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day.
	Daily price limit is equal to $\pm 20\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.
Trading Hours	Trading Hours are in <u>Appendix-3</u> .
Collateral and Margining Rules	It is stated according to Clearing Legislation.

	Government Debt Securities traded at Borsa İstanbul Debt Securities			
Underlying Asset	Market and determined by Borsa İstanbul.			
Contract Sinc	Nominal Value= 100,000 TRY			
Contract Size	Contract Size= 1,000			
Price Quotation and	Prices shall be entered on the basis of 100 unit as a three digit value of			
Minimum Price Tick	clean price that is not including any accrued interest. (for example:			
	99.373, 99.374 etc.) Minimum price tick is 0.001 TRY. The minimum			
	price tick corresponds to a value of 1 TRY.			
	March, June, September and December. (Contracts with two different			
Contract Months	expiration months nearest to the current month shall be traded			
	concurrently.)			
Settlement	Physical delivery			
	The daily settlement price used for updating accounts following the end			
	of the session is calculated as follows and rounded to the nearest price			
	tick:			
	e) The weighted average price of all the trades performed within			
	the last 10 minutes of the Normal Session,			
	f) If less than 10 trades were executed in the last 10 minutes of the			
	session, the weighted average price of the last 10 trades			
	performed during the session,			
	g) If less than 10 trades were performed during the session, the weighted average price of all the trades performed during the			
	session,			
	h) If no trades were performed during the session, the settlement			
	price of the previous day,			
Daily Settlement Price	will be determined as the daily settlement price.			
	If the daily settlement price cannot be calculated in accordance with the			
	above methods by the end of the session, or it is decided that the prices			
	calculated do not reflect the market correctly, the daily settlement price			
	may be determined by using one or more of the following methods.			
	c) The average of the best buy and sell quotations at the end of the session,			
	d) Theoretical prices are calculated considering spot price of the			
	underlying asset or the daily settlement price for other contract			
	months of the contract.			
	Trade reports will not be taken into consideration in the above			
	calculations. The Settlement Price Committee's right to change the daily			
	settlement price is under reserve.			

### **BB.** Physically Delivered Government Bond Futures\_Contract

# BORSA İSTANBUL A.Ş. DERIVATIVES MARKET PROCEDURE HALKA AÇIK/PUBLIC

	The weighted average clean price calculated for the T+1 value date of	
Expiry Day (Final) Settlement Price	the relevant underlying Government Debt Securities is accepted as the	
	final settlement price	
	The final settlement price will be determined by the Settlement Price	
	Committee if the spot market was partialy or entirely closed in the spot	
	market that underlying security is traded, or price was not discovered	
	despite the fact that the market was open on the last trading day.	
	The price for physical delivery is the dirty price found by adding the	
	accrued interest to the settlement price.	
	Last business day of the standard contract month.	
Last Trading Day	In case domestic markets are closed for half day due to an official	
	holiday, last trading day shall be the preceding business day.	
Expiry Day	Last business day of the standard contract month.	
	In case domestic markets are closed for half day due to an official	
	holiday, expiry day shall be the preceding business day.	
Settlement Period	Settlement period is T+1 for physical delivery.	
Settlement Period	Settlement period is T+1 for physical delivery. Losses are deducted from the accounts starting from the end of T day,	
Settlement Period		
Settlement Period Base Price and Daily Price	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on	
	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in	
Base Price and Daily Price	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the	
Base Price and Daily Price	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day.	
Base Price and Daily Price	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each	
Base Price and Daily Price	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a	
Base Price and Daily Price	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each	
Base Price and Daily Price	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a	
Base Price and Daily Price	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the	
Base Price and Daily Price Limit	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.	
Base Price and Daily Price Limit	Losses are deducted from the accounts starting from the end of T day, while profits are added to the accounts by T day. Base price is the price determined by the Settlement Price Committee on the day the relevant contract is introduced for trading, and used in calculating the daily price limits. For the other days, base price is the settlement price of the previous day. Daily price limit is equal to $\pm 10\%$ of the base price determined for each contract. If the upper or lower limit calculated does not correspond to a price tick, the upper limit will be rounded to the lower price tick; and the lower limit, to the upper price tick.	



# **APPENDIX-2: MARKET DEFINITION LIST**

SUB-MARKET CODE/NAME	MARKET SEGMENT CODE/NAME	UNDERLYING
51/VIOP Government Bond Derivatives Market	BOP/Physically Delivered Government Bond Futures-TRY	Government Bonds
105/VIOP Equity Derivatives Market	SSO/Equity Options-TRY	EQUITY
105/ VIOF Equity Derivatives Market	SSF/Equity Futures-TRY	EQUITY
	INO/Index Options-TRY	XU030D
		XU030D
<b>170/VIOP Index Derivatives Market</b>	INF/Index Futures-TRY	XLBNKD
	INF/Index Futures-TRY	X10XBD
		XSD25
171/VIOP Foreign Indices Derivatives Market	FIF/Foreign Index Futures VİS-TRY	SASX10
	PCF/Physically Delivered Currency Futures- TRY	USDTRYP
	PCO/Physically Delivered Currency Options- TRY	USDTRYKP
	CRO/Currency Options-TRY	USDTRYK
<b>176/VIOP Currency Derivatives Market</b>	CRFU/Currency Futures-USD	EURUSD
		GBPUSD
	CRF/Currency Futures-TRY	USDTRY
		EURTRY
		RUBTRY
		CNHTRY
178/VIOP ETF Derivatives Market	ETF/ETF Futures-TRY	-
	PMF/Precious Metals Futures-TRY	XAUTRY
<b>179/VIOP Precious Metals Derivatives Market</b>	PMFU/Precious Metals Futures-USD	XAUUSD
		XAGUSD

# BORSA İSTANBUL A.Ş. DERIVATIVES MARKET PROCEDURE HALKA AÇIK/PUBLIC



SUB-MARKET CODE/NAME	MARKET SEGMENT CODE/NAME	UNDERLYING				
		XPTUSD				
		XPDUSD				
<b>180/VIOP Metal Derivatives Market</b>	MTF/Metal Futures-USD	XCUUSD				
181/VIOP Interest Rate Derivatives Market	ONF/Fixed Income Futures-TRY	-				
101/ VIOI Interest Rate Derivatives Market	TRF/TLREF Futures-TRY	TLREF1M				
182/VIOP Commodity Derivatives Market	CMF/Commodity Futures-TRY	-				
		-				
		ELCBAS01				
		ELCBAS02				
		ELCBAS03				
		ELCBAS04				
		ELCBAS05				
		ELCBAS06				
		ELCBAS07				
		ELCBAS08				
185/VIOP Base Load Electricity Derivatives Market	ENF/Base Load Electricity Futures-TRY	ELCBAS09				
		ELCBAS10				
		ELCBAS11				
		ELCBAS12				
		ELCBASQ1				
		ELCBASQ2				
		ELCBASQ3				
		ELCBASQ4				
		ELCBASY				



# APPENDIX-3: EXPLANATIONS ON TRADING DAY SECTIONS AND VIOP'S TRADING AND DAILY WORKFLOW HOURS

#### <u>A) DAILY WORKFLOW HOURS AND TRADING DAY SECTIONS OF CONTRACTS</u> EXCLUDED FROM EVENING SESSION

FULL BUSINESS DAY/HALF BUSINESS DAY						
SUB-MARKET	SESSION HOURS					
Contracts Not Included in Evening Session	09:20-18:10 / 09:20-12:40					
TRADING DAY SECTIONS	HOURS					
VIOP_YAYIN	System Startup					
VIOP_SEANS_ONCESI	07:30:00					
VIOP_ACS_EMR_TP	09:20:00					
VIOP_ACS_ESLESTIRME	09:25:00*					
VIOP_SUREKLI_MZYD	09:30:00					
VIOP_SEANS_SONU	18:10:00 / 12:40:00					
VIOP_UF_ILANI	18:55:00+ / 13:25:00+					
VIOP_GUNSONU_N	19:00:00+ / 13:30:00+					

\* Order matching session will start at a random time within 30 seconds, and the order collection will continue until this time.

#### B) DAILY WORKFLOW HOURS AND TRADING DAY SECTIONS OF CONTRACTS INCLUDED IN EVENING SESSION

FULL BUSINESS DAY/HALF BUSINESS DAY						
CONTRACT	SESSION HOURS					
Contracts Included in Evening Session	09:20-18:10 & 19:00-23:00 / 09:20-12:40					
TRADING DAY SECTIONS	HOURS					
VIOP_YAYIN_AS	System Startup					
VIOP_SEANS_ONCESI_AH	07:30:00					
VIOP_ACS_EMR_TP	09:20:00					
VIOP_ACS_ESLESTIRME	09:25:00*					
VIOP_SUREKLI_MZYD	09:30:00					
VIOP_SEANS_SONU	18:10:00 / 12:40:00					
VIOP_UF_ILANI	18:45:00+ / 13:25:00+					
VIOP_GUNSONU / VIOP_GUNSONU_N	18:46:00+ / 13:30:00+					
VIOP_AS_ONCESI	18:50:00					
VIOP_AS_SUREKLI_MZYD	19:00:00					
VIOP_AS_SONU	23:00:00					
VIOP_GUNSONU_AS	23:15:00					

\* Order matching session will start at a random time within 30 seconds, and the order collection will continue until this time.

Evening Session does not held at the last trading day of the calendar year.



TRADING DAY SECTIONS	EXPLANATIONS				
	It is used for trading halt.				
BIST_DURDURMA	Order entry, cancellation and amendment are not allowed.				
	Trade reporting is not allowed.				
	Opening session period that orders are accepted into the system in a certain time frame without matching.				
	Various kinds of orders with different types and validities can be sent. (see. Table-2)				
VIOP_ACS_EMR_TP	Trade reporting is not allowed.				
VIOI_AC5_EMK_II	Flexible contracts cannot be created.				
	Price and quantity of orders can be amended, and order validity can be changed.				
	Orders can be cancelled and/or inactivated.				
	Inactive orders can be activated and sent to the system.				
	Opening session period in which the trades are realized with single price method.				
VIOP_ACS_ESLESTIRME	Order entry, cancellation and amendment are not allowed.				
	Trade reporting is not allowed.				
	Flexible contracts cannot be created.				
	It is the no trade period if there is a trading halt or the time between the creation of flexible contract and opening to trade.				
VIOP_ARA	Order entry and amendment are not allowed.				
	Orders can be cancelled.				
	Trade reporting is not allowed.				
	It is the no trade period if there is a trading halt in Evening Session.				
VIOP_ARA_AS	Order entry and amendment are not allowed.				
	Orders can be cancelled.				
	Trade reporting is not allowed.				
	It is the no trade period before Evening Session.				
	It is allowed to connect to the trading system and				
	perform query.				
	Order entry is not allowed.				
	Trade reporting is not allowed.				
VIOP_AS_ONCESI	Flexible contracts cannot be created.				
	Remaining day orders, "good till date" or "good till cancel" orders from previous days or Normal Session of the same day may be canceled.				
	The quantity of orders which are valid in Evening Session and will expire at the end of the related evening session can be reduced and/or prices can be				



TRADING DAY SECTIONS	EXPLANATIONS			
	changed to worse (lower for buy orders, higher for sell orders) prices.			
	Normal Session price statistics (open position, base price, settlement price, lower price limit, upper price limit, except closing) are removed.			
	Inactive orders valid for Normal Session and Evening Session can be entered.			
	It is the stage showing that Evening Session is over.			
VIOP_AS_SONU	Order entry and amendment are not allowed. Orders can be cancelled.			
	Trade reporting is not allowed.			
	On the basis of price and time priority, it is a multiple price continuous Evening trading session in which trades are performed on a continuous process.			
	Various kinds of orders, valid for Evening Session, with different types and validities can be sent. (see. Table-2)			
VIOP_AS_SUREKLI_MZYD	Trade reporting is not allowed.			
	Flexible contracts cannot be created.			
	Price and quantity of orders can be amended.			
	Orders can be cancelled and/or turned into inactive status.			
	Inactive orders, valid for Evening Sesson, can be activated and sent to the system.			
	It is used for trading halt at normal session			
VIOP_DURDURMA	Order entry, cancellation and amendment are not allowed.			
	Trade reporting is not allowed.			
VIOP_DURDURMA_AS	It is used for trading halt at evening session Order entry, cancellation and amendment are not allowed.			
	Trade reporting is not allowed.			
VIOP_DURDURMA_EI	It is used for trading halt at normal session and when market-wide circuit breaker system is activated.			
	Order entry and amendment are not allowed.			
	Orders can be cancelled and/or inactivated.			
VIOP_DURDURMA_EI_AS	Trade reporting is not allowed.It is used for trading halt at evening session			
	Order entry and amendment are not allowed.			
	Orders can be cancelled and/or inactivated.			
	Trade reporting is not allowed.			



TRADING DAY SECTIONS	EXPLANATIONS
	It indicates the end of Normal Session for contracts
	included in Evening Session.
	Orders can not be sent, amended nor cancelled.
VIOP_GUNSONU	Daily orders, that are not valid in Evening Session and
	not turned into trade, are automatically canceled by the system.
	Trade reporting is not allowed.
	It is the period between the end of Evening Session
	and the system close in which trade is not allowed.
VIOP_GUNSONU_AS	Orders can not be sent, amended nor cancelled.
VIOF_GUNSONU_AS	Daily orders, that are valid in Evening Session and not
	turned into trade, are automatically canceled by the
	system. Trade reporting is not allowed
	Trade reporting is not allowed.
	It indicates the end of trading day for contracts that are not included in Evening Session.
	Orders can not be sent, amended nor cancelled.
VIOP_GUNSONU_N	Daily orders that do not match are automatically
	canceled by the system.
	Trade reporting is not allowed.
	Session state used for non-trading period from system
	start-up to continuous trading of Normal Session (or
	fixing if applicable). It is allowed to connect to the trading system and
	perform query.
	Order entry is not allowed.
	Trade reporting is not allowed.
VIOP_SEANS_ONCESI	Remaining "good till date" or "good till cancel" orders
	from previous days may be canceled or inactivated.
	The quantity of "Good-Till-Cancelled" and "Good- Till Data" and are from provide days can be reduced
	Till-Date" orders from previous days can be reduced and/or prices can be changed to worse (lower for buy
	orders, higher for sell orders) prices.
	Inactive orders can be prepared to be sent to the system
	later.
	Session state used for non-trading period from system
	start-up to continuous trading of Normal Session (or
	fixing if applicable) for contracts included in Evening Session.
VIOP_SEANS_ONCESI_AH	It is allowed to connect to the trading system and
	perform query.
	Order entry is not allowed.



TRADING DAY SECTIONS	EXPLANATIONS
	Remaining "good till date" or "good till cancel" orders from previous days may be canceled.
	The quantity of "Good-Till-Cancelled" and "Good- Till-Date" orders from previous days can be reduced and/or prices can be changed to worse (lower for buy orders, higher for sell orders) prices. Evening Session price statistics (open position, base price, settlement price, lower price limit, upper price limit, except closing) are removed.
	It is the stage in which the settlement prices are
	calculated after the continuous trading of Normal Session is over.
VIOP_SEANS_SONU	Order entry and amendment are not allowed.
	Orders can be cancelled.
	Trade reporting is not allowed.
	On the basis of price and time priority, it is a multiple price continuous trading of Normal Session in which trades are performed on a continuous process.
	Various kinds of orders with different validities can be sent. (see. Table-2)
VIOP_SUREKLI_MZYD	Trade reporting is allowed.
	Price and quantity of orders can be amended, and order validity can be changed.
	Orders can be cancelled and/or turned into inactive status.
	Inactive orders can be activated and sent to the system.
	Flexible contracts can be created.
VIOP_TUM_EMIR_IPTAL	It is the section used for cancellation of all orders in the system by Borsa İstanbul in case of extraordinary circumstances.
VIOP_UF_ILANI	Calculated settlement prices and other price statistics are finalized and announced. Order entry, cancellation and amendment are not allowed.
	Trade reporting is not allowed.
VIOP_YAYIN	It is the section to generate correctly the end-of-day statistics to be used by data vendors.
VIOP_YAYIN_AS	It is the section to generate correctly the end-of-day statistics for contracts included in Evening Session to be used by data vendors.



Types of Orders That Can Be Entered According to Trading Day Segments																			
Trading Day Segments		Order Type			Order Validity				Order Amend/Cancel					Ot e	-				
	Α	B	С	D	H	Ι	J	K	L	Μ	Ν	0	P	R	S	Τ	U	V	Y
BIST_DURDURMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VIOP_ACS_EMR_TP	1	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0
VIOP_ACS_ESLESTIRME	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
VIOP_ARA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
VIOP_ARA_AS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
VIOP_AS_ONCESI	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1
VIOP_AS_SONU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
VIOP_AS_SUREKLI_MZYD	1	0	0	1	1	1	1	0	0	1	1	1	1	1	0	0	1	0	1
VIOP_DURDURMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VIOP_DURDURMA_AS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VIOP_DURDURMA_EI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
VIOP_DURDURMA_EI_AS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
VIOP_GUNSONU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VIOP_GUNSONU_AS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VIOP_GUNSONU_N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VIOP_SEANS_ONCESI	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1
VIOP_SEANS_ONCESI_AH	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1
VIOP_SEANS_SONU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
VIOP_SUREKLI_MZYD	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VIOP_TUM_EMIR_IPTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VIOP_UF_ILANI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
VIOP_YAYIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VIOP_YAYIN_AS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ex	Explanations on the Order Type Table that can be Entered during Trading Day Sections						
Order	Order Type:						
A	Limit						
В	Market						
С	Market to Limit						
D	Stop order						
Order	· Validity:						
Н	Day						
Ι	Fill and Kill						
J	Fill or Kill						
K	Good-Till-Date						
L	Good-Till-Cancelled						
Μ	Valid in Evening Session (Off-hours)						



Explanations on the Order Type Table that can be Entered during Trading Day Sections								
Order	Order Amendment/Cancellation:							
Ν	Decrease Quantity							
0	Increase Quantity							
Р	Improve Price							
R	Disimprove Price							
S	Decrease Validity							
Т	Increase Validity							
U	Cancel Order							
V	Trade Reporting							
Y	Order Depth Information							
1	Allowed							
0	Not Allowed							



#### **APPENDIX-4: RULES FOR TRADE REPORTING APPROVAL**

#### **Trade Reporting Approval for Single Stock Option and Futures Contracts Underlying Asset Price** Minimum Maximum Order Approval Rule for Trade **Order Quantity** Quantity Reporting 0-2.49 80,000 320,000 40,000 160,000 2.50-4.99 20,000 80.000 5.00-9.99 10,000 40,000 10.00-19.99 5,000 20,000 20.00-39.99 The price at which trade 2,500 10,000 40.00-79.99 reporting occurs must be within the price limits of the 1,250 5,000 80.00-149.99 respective contract. 150.00-249.99 700 2,800 250.00-499.99 400 1,600 500.00-749.99 250 1,000 700 750.00-999.99 175 400 ≥1,000.00 100

Trade Reporting Approval for Other Contracts									
Contract	Minimum	Maximum Order	Approval Rule for Trade						
	Order Quantity	Quantity	Reporting						
Index Contracts	2,000	4,000							
Currency Contracts	5,000	10,000							
USD/Ounce Gold	1,250	2,500							
Contracts									
TRY/Gram Gold Contracts	25,000	50,000							
USD/Ounce Silver Futures	5,000	10,000							
USD/Ounce Platinum	500	1 000							
Futures	300	1.000	The price at which trade reporting occurs must be within the price limits of						
USD/Ounce	500	1.000							
Palladium Contracts	300	1.000							
USD/Tonne Copper	500	1.000	the respective contract.						
Contracts	300	1.000							
Base Load Electricity	50	500							
Contracts									
TLREF Futures Contracts	100	1,000							
Physically Delivered	200	2 000							
Government Bond Futures	200	2,000							
Other Contracts	2,000	4,000							



# APPENDIX-5: TARIFF ON EXCHANGE FEE AND OTHER CHARGES

Revenue Item							
Voluntary	Base Value	Ratio					
Order Cancellation Fee	Nominal Base value determi Article 33 of Derivatives ma	0.000012 (1.2 per hundred thousand)					
	Contract	Base Value	Exchange Fee Rate				
	For the futures contracts written on Equity Index	Trade Value	0.00004 (4 per hundred thousand)				
	For the option contracts written on Equity Index	Trade Value	0.00004 (4 per hundred thousand)				
Exchange Fee	For the futures contracts	Nominal Value	0.00001 (1 per hundred thousand)				
	For the futures contracts other than written on Equity Index	Trade Value	0.00003 (3 per hundred thousand)				
	For the option contracts other than written on Equity Index	Trade Value	0.00003 (3 per hundred thousand)				



#### **APPENDIX-6: PRE-TRADE RISK MANAGEMENT**

In the System, double layered risk management structure which includes pre-trade and at trade is designed. BISTECH PTRM is integrated with the Trading and clearing platforms to provide pre-trade and at-trade risk management. PTRM, offers the Exchange and its members the ability to control the risk arising from both orders and trades. Within the application, risk arising from orders sent from TW, FixAPI and OUCH protocols and executed trades are going to be controlled. Risk controls are done at different stages such as pre-trade (pre-order & post order) and at trade.



#### Figure 1: Pre-Trade Risk Management – General Structure

Market members connect to the PTRM application with GUI (Graphical User Interface) and API (Application Program Interface) through Distant Remote Access. User information and authorization will be provided/given by the Exchange. In order to get a PTRM GUI user, attandance to PTRM application education is a must.

PTRM provides below pre-trade (pre-order & post order) and at-trade risk checks:

- User and account based validations
- Risk group checks (User limits)
- Margin checks
- Position limit checks

User and account validations are done in the pre-order process according to the market based regulations.

Risk exposure of users entering order into the system is controlled by risk group checks at pretrade (pre-order & post order) and at-trade stages. Risk group checks are comprised of a group of users connected to the Market member. If deemed necessary, Exchange users can set limits for Market members.

Pre-trade and at-trade margin checks are enforced for each account accordingly to the regulations set by Takasbank. Updated available collateral information for each account can be followed from PTRM by Market members.



Position limit checks will be enforced within a single investor (investor-based position limit) or whole market (market-based position limit) in accordance with the rules determined by Takasbank.

PTRM will take the required actions such as the Market member or account block sent from the Clearing System. In the case where margin consumption exceeds the required levels, Takasbank may restrict the account to enter order or position increasing orders. If deemed necessary by Takasbank, even position closing orders may be restricted. Regulations regarding the order entry restriction is determined by the Clearing Legislation. Furthermore, apart from the margin breach case, when the regarding cases occured in Exchange or Takasbank procedures, if deemed necessary, Market member and related accounts may be blocked directly via PTRM GUI. Suspended members and accounts can be monitored through PTRM GUI.

There is four-eyes control in configurations, except the below listed ones, of PTRM. Four-eyes functionality is configured by the Exchange if demanded by market participant. Market participant, if demand, can create a password with his read/write users and approve the configurations made by another write user of him.

- Mass cancelling orders of all risk groups of market participant,
- Mass cancelling orders of risk group,
- Block/unblock of risk group,
- Unblock the breached instrument/instrument type/instrument class of risk group,
- Mass cancelling orders of user,
- Removal of order rate limit in case of an order rate limit breach.

Participants can instantly follow the connection status of their users included in risk groups by connection status area in PTRM.

#### 1. USER AND ACCOUNT BASED VALIDATIONS

At the time of order entry and amendment, PTRM validate the user and account information:

- Account Validation: Orders can not be accepted unless a valid account is entered.
- User & Account Validation: Users are only allowed to trade using the accounts that they are authorized. User-account validation will be done only by Market members via clearing terminals.
- Account & Contract Validation: Accounts are only allowed to trade contracts that they are authorized.

#### 2. RISK GROUP CHECKS (USER LIMITS)

Risk group checks will be done according to the limits set by Market members. Risk group checks are comprised of a group of users connected to the Market members. Risk group checks functionality is optional for Market members. Authority for this functions given on demand of Market member.

It is the responsibility of the Market members to monitor their real time risks stemming from their algorithmic order submission systems and restrict these risks, shut the application down immediately and stop the order transmission. In this regard, it is expected that Market member take the necessary precautions, make use of the user limits functionality and notify the Exchange about the problems or flaws regarding their algorithmic order transmission system as soon as possible.



Furthermore, Market members are required to inform the Exchange about risk limits set and the method of risk calculation for each risk group in terms of the user limits functionality and furthermore, is obliged to inform the Exchange if requested.

PTRM provides below risk group checks:

- Pre-Order Risk Controls
  - Maximum Order Size
  - Restricted Contracts
  - Price Tolerance Limit
- Post-Order and At Trade Risk Controls
  - Order rate limitations
  - Intraday position limits
  - Duplicate order limit

Post-order and at trade risk controls are performed after orders and trades. If the consumption is equal to or greater than the given limit, breach occurs. The order or trade causing the limit to be exceeded is not blocked. Consumption is updated after the orders or trades are processed by PTRM. It is possible for a breach to occur during the time elapsed until the transmission of orders or the realization of trades is reflected in consumption. After the breach occurs, actions are implemented in accordance with the predetermined rules of Exchange or Member.

In addition to these functionalities all open orders of a risk group or of a user of a risk group can be manually cancelled at once. Open orders can also be automatically cancelled at once when limits (Position Risk Limits, Order Rate Limits and Duplicate Order Limits) set by the Market members in the PTRM application are breached or when the monitored user disconnects as described in detail under heading 2.3.



#### Figure 2: Risk Group Checks



Risk calculation methods used in risk calculations for position risk limit checks and maximum order size check are as below:

- Quantity (number of contracts traded)
- Volume (number of contracts traded \* contract size)
- Value (number of contracts traded \* contract size \* price \* exchange rate)

Market members may have several risk groups but a user can only be assigned to one risk group. Each risk group may represent different risk limits. For each risk group; maximum order size, position risk limits and calculation methods can be configurable per instrument class and instrument type. Order rate limit is configurable per risk group.

Contract hierarchy is given as; "Exchange  $\rightarrow$  Market  $\rightarrow$  Instrument type  $\rightarrow$  Instrument class  $\rightarrow$  Instrument series". Example for Derivatives Market can be given as follow; "Exchange  $\rightarrow$  Market (Index Derivatives Market) $\rightarrow$  Instrument type (Index Futures) $\rightarrow$  Instrument class (BIST30 Index Futures)  $\rightarrow$  Instrument series (F\_XU0301218)".

In cases of set limit breaches, PTRM will send three types of e-mail alerts to e-mail alert receivers of the risk group given by the Market Member. There are three types of e-mail alerts.

- Notice: The lowest level of alert.
- Warnings: The next highest level of alert.
- **Breach:** Risk limits have been exceeded.

Each limit defined for a risk group generates only one notice, warning, and breach email per trading day.



## 2.1 Pre-Trade Risk Checks

#### 2.1.1 Maximum Order Size

Maximum order size validation is performed at order entry and amendment as stated below:

o Order Size  $\geq$  Maximum order size ---> Order rejected

o Order Size < Maximum order size ---> Order accepted

Maximum order size is the maximum quantity, value or volume of an order that shall be allowed for a risk group. Maximum Order Size and calculation method of order size shall be configurable per instrument class and instrument type.

#### 2.1.2 Restricted Contracts

Market members may restrict the contracts of a risk group. If restricted contracts is enabled, a risk group may only trade in the instrument types/classes for which the Market member has explicit limits set.

#### 2.1.3 Price Tolerance Limit

Price tolerance limit shows the percentage limit for an order to be accepted. Orders outside of those limits are not accepted to the system. The following prices are taken into consideration while determining the price tolerance limits:

- Last trade price
- Base price
- Best buy or best sell price
- Reference price

The priorities of the above reference prices are determined separately for the normal and the evening sessions.

Orders, pending in the system, are not cancelled by PTRM in case they are out of limits because of price tolerance limit update or price movements.

#### 2.1.4.Duplicate order limit

The number of orders for the same contract with the same quantity, price and direction (buy/sell) of a user in a certain period of time (in seconds) can be controlled with this limit. The limit can be defined on instrument class and/or instrument type, and applies to all the contracts under the related instrument class and/or instrument type. In case of a breach in the duplicate order limit on a contract, the related risk group is blocked on the instrument class/type of that contract and the users under the risk group are not allowed to submit new orders to the all contracts of that instrument class/type.

#### 2.2 Post Order & At Trade Risk Controls

#### 2.2.1 Position Risk Limits

For each risk group, after entering order into the system, below stated nine type of position risk counters according to the set calculation method per instrument class and instrument type will be calculated from start of the day.



Position risk controls will be done by comparing the value of calculated risk limits to the set risk limit values:

A:	Open Orders-Buy	
B:	Open Orders-Sell	
C:	Traded Bought	
D:	Traded Sell	
E:	Traded Net	$\mathbf{E} =  \mathbf{C} - \mathbf{D} $
F:	Total Buv	$\mathbf{F} = \mathbf{A} + \mathbf{C}$
G:	Total Sell	$\mathbf{G} = \mathbf{B} + \mathbf{D}$
H:	Total Net Buy	$\mathbf{H} = \mathbf{C} \mathbf{-} \mathbf{D} \mathbf{+} \mathbf{A}$
I:	Total Net Sell	$\mathbf{I} = \mathbf{D} \mathbf{-} \mathbf{C} \mathbf{+} \mathbf{B}$
J:	Total Open Order	J=A+B

For each risk group, position risk limits and calculation method shall be configurable per instrument class and instrument type. If either the nine position risk counters equals or exceeds the given limit for a specific instrument class or instrument type, breaches occur on this instrument class or instrument type for the risk group. When a breach occurs for a risk group instrument class or instrument type, users of this risk group are:

- not allowed to submit new orders in any of the series connected to the affected instrument class or instrument type.
- not allowed to amend existing orders in any of the series connected to the affected instrument class or instrument type .
- allowed to cancel orders.
- allowed to enter new orders for unbreached instrument class or instrument type.
- If users in the risk group, cancel their pending orders in a level of preventing limit breach, breach restriction is automatically aborted. Exchange or Market member may unbreach restriction by increasing breach limit of risk group.

When the risk limit set as zero, it means its infinite. System will not make any control when the limits are set as zero.

#### 2.2.2 Order Rate Limits

Order rate limits is a limit set on the rate of orders for risk groups. Order rate limit check is based on new orders inserted into the book. Below orders are ignored by the order rate limit check:

- Order cancel requests
- Rejected orders
- Order modifications
- Order types that do not stay in the orderbook such as Fill or Kill orders (FoK), Fill and Kill orders (FaK) (orders executed at the time of entry will be calculated)

Order rate limit is defined as new orders per second. The order rate limit is checked every 1/10th (100 milliseconds) of a second. Order rate limit breaches if the order rate is higher than one tenth of the set limit within one tenth of a second. When a risk group equals or exceeds the defined order rate limit, group is blocked. When a risk group is blocked,



- New orders are rejected for the instrument class or instrument type breached.
- Order amendments are rejected for the instrument class or instrument type breached.
- Order cancellations are allowed.
- Users can connect to the system, take broadcast and inquire.

A manual unblock is required to lift the breach restriction. If the blocked risk group is not unblocked manually during trading day, the blocked group will be unblocked automatically at the beginning of the next trading day.

#### 2.3 Monitored User

A risk group can be configured to monitor the connection status of a specified user real-time. If the monitored user disconnects, users in the risk group are automatically blocked from entering transactions. When the monitor user re-connects, block has to be lifted manually. Setting a monitored user is optional.

#### **2.4 Blocking Risk Groups**

There are three ways a Risk Group can be blocked:

- Automatically when risk group exceeds one of its position risk limits.
- Automatically blocked if the monitored user loses its connection
- Manually blocked by the Market member or by the Exchange

Automatically breached positions risk limits are unbreached automatically when the consumption falls below the configured limit or when the configured limit is increased by the Exchange or the Market member. A manual unblock is required to lift the block restriction arising from exceeding the order rate limit. If the blocked risk group is not unblocked manually during trading day, the blocked group will be unblocked automatically at the beginning of the next trading day.

If the risk group is breached due to the duplicate order limit, it can be unbreached in two ways. Either, the configured limit is increased by the Exchange or the Market member or a manual unblock is required to lift the block restriction arising from exceeding the limit. Otherwise, blocked group will be unblocked automatically at the beginning of the next trading day.

If the monitored user has lost its connection, the group must be manually unblocked even if the monitored user is logged back in. Manual intervention is required to finish the blocking in case of disconnection of the monitored user, it is not enough to reconnect the monitored user.

A risk group can be blocked manually by the Market member or by the Exchange. Manually blocked risk group can be unblocked manually as well.

If the blocked risk group is not unblocked manually during trading day, the blocked group will be unblocked automatically at the beginning of the next trading day.

Users in a blocked risk group;

- New orders are rejected.
- Amendments are rejected.
- Order cancellations are allowed.
- Can connect to the system.
- Take broadcast and inquire.


## 2.5 Risk Group Parameter Changes

Risk parameters required for risk group checks can be changed intraday, but only certain actions are allowed intraday. Other actions will take effect on the next business day. The following changes can be made and are effective at any time:

- Updating limit values (position limits, order rate limits, maximum order size, price tolerance limit, duplicate order limit)
- Setting/Changing notice and warn percentages
- Adding new e-mail alert recipient
- Blocking and unblocking a risk group
- Manually unblocking order rate breach
- Turning on/off restricted contracts for a risk group
- Mass cancellation of open orders of a risk group

The following changes become effective on the next day:

- Adding and deleting position risk limits for a risk group
- Changing which thresholds trigger email alerts
- Removing existing e-mail alert recipients
- Adding and removing users to/from a risk group
- Creating and deleting a risk group
- Changing monitored user of a risk group
- Setting the default group

## 2.6 Exceptions for Risk Group Checks

In this section, special transactions are described since clarification is required due to their special nature.

#### Trade Reports

Trade reports are included in position risk calculations as other trades. Traded bought and traded sold counters are updated with the entry of one-sided or two-sided trade reports. PTRM cannot reject trade reports during the maximum order size check or after a risk group is blocked. Consumption will occur when the trade reports are approved by both parties.

#### Intermonth Strategy Orders

Strategy type and class similar to contract type and class are defined in the System for strategy orders. Position risk limits and maximum order quantity configurations can also be executed at strategy type and class level alike at contract type and class of contracts composing the strategy. Risk calculation method can be determined only as "quantity" at strategy type and class level as opposed to "quantity", "volume" and "value" at contract type and class level. Strategies can be included in "restricted contracts" configurations. Price tolerance limit can be configured for intermonth strategy orders. This limit is valid only for intermonth strategy orders.

#### Stop Orders

Stop orders may have conditions to be triggered by price or by session. Until the condition is realized, these orders are untriggered. Untriggered orders do not consume risk group limit at the time of order entry. Risk group limit consumption is calculated at the time of trigger for these orders. Price tolerance limit is not valid for stop orders.



#### Good-Till-Cancelled and Good-Till-Date Orders

Long-dated (GTC &GTD) orders are loaded into the system at the beginning of each day. At this stage, cancellation or rejection of the orders is not possible. Maximum order size checks will not be done at the beginning of each trading day for long-dated orders. Orders accepted system with "Paused" status are included in risk calculations.

#### Inactive Orders

Orders inactivated by users (local inactivation) do not consume risk after inactivation. Order inactivated by the system (central inactivation) consume risk after inactivation and therefore do not consume any additional risk at the time of activation.

#### Rectify Deal

When there is a cancellation for a transaction, position risk limits will not be updated accordingly.

#### Market Orders

When the risk calculation method is set as "volume", market orders will be rejected at contracts which do not have last trade price, previous day closing price or settlement price. This situation will not occur when "quantity" or "value" risk calculation method is chosen. Price tolerance limit is not valid for market and market to limit orders.

## "Fill or Kill" and "Fill and Kill" Orders

In cases of Limit, Market and Market to Limit orders with "Fill or Kill" or "Fill and Kill" validity submitted by users included in the related risk group of Market members which have set "Open Buy Orders", "Open Sell Orders" and "Total Open Orders" limits under position risk limits and matched partially or in full, the whole order quantity is reflected in risk calculations and instant limit breaches can take place if the last calculated value reaches the limit. If mail configuration has been practiced for the related risk group or if all orders cancellation function is in use, this case happening at a speed which can not be seen on the PTRM GUI can trigger these functions. If orders with "Fill or Kill" or "Fill and Kill" do not match, orders are cancelled without any reflection on risk calculations. Orders accepted system with "Paused" status are included in risk calculations.

#### 3. MARGIN CHECKS

Market member can monitor updated available collateral value from PTRM on a real time basis. Pre-trade and at trade checks done by PTRM are enforced for each account within the framework of regulations set by Takasbank and after each transactions margin suffiency is checked by comparing margin consumption with the available collateral. In the case where margin consumption exceeds the available collateral or the available collateral is negative for an account, breach will occur and the affected account will be in "risky" status. Risky accounts are not allowed to enter position increasing orders and can only enter position decreasing orders.

Available collateral is calculated by RTM, componant of post trade risk management system, according to post trade risk management margin calculation method. Updated available collateral is calculated according to a special margin calculation method developed for PTRM system. PTRM works integrated with RTM throughout the day. As a trade is processed, RTM sends updated available collateral value and trade information resolved back to PTRM. This updated information is used to correct for the margin consumption that PTRM calculates based on its simplified pre-trade margin model. After receiving available collateral value updated with new trades, PTRM does not consume margin for the resolved trades.



## **3.1 Pre-Margin Model**

Pre-trade margin model is developed based on post-trade margin model and provides risk control in terms of portfolio.. This model does not support intracommodity spread charge, intercommodity spread credit, short option minimum margin and net option value calculations which are considered by post margin model. It is a simplified algorithm featuring no latency impact on order transmission. PTRM calculates margin consumption using the worst-case scenario applied to positions and open orders of an account on the basis of margin instrument group where each group represent an underlying asset. Margin instrument group is a group of contracts for which there may be certain margin offsetting among the contracts in the same group. Worst case scenario is constituted by analyzing long and short positions'risks seperately for each risk group. Margin consumptions calculated for each margin instrument group are added together to find out the total margin consumption value for an account.

## **3.1.1 Pre-Trade Margin Model Parameters**

## i. Unit Margin, UM

Unit margin is the margin amount that is required for taking long or short positions in an instrument series. Unit margin is calculated for both long (LUM) and short (SUM) position based on instrument series.

This infomation is received from the Clearing system at the start-up and taken as a base for the calculations made by PTRM. Considering the different risk profiles of the Market members and accounts, unit margin values calculated based on instrument series may be differentiated between accounts.

## ii. Unit Margin Coefficient, UMC

Unit margin coefficient is a scaling coefficient that will apply to unit margin values to provide control and tuning of the relative risk tolerance of the pre-trade margin model. Unit margin coefficient can be differentiated between accounts.

#### iii. Netting Coefficient, NC

Netting coefficient is used to scale the margin offsetting effect among the contracts in the same margin instrument group.

#### iv. Consumption Coefficient, CC

Consumption coefficient is used to scale the required margin value calculated and thus it is used for specifying the relative risk tolerance of the real-time margin system when compared to the calculations of the post-trade. This coefficient is determined at account level and used for available collateral calculations.

## 3.1.2 Algorithm for Margin Calculation

PTRM keeps a map of contract-position objects for each instrument series for which positions and orders exist. Contract-position objects store the following information which provides a basis for margin calculations of each account.

- LP : Long Position (units)
- SP : Short Position (units)
- RLP : Resolved Long Position (units)
- RSP : Resolved Short Position (units)



- TM : Margin Consumed by Positions Only (in margin)
- MC : Margin Consumed (in margin)

During margin consumption calculation, position information will be multiplied with below margin coefficients:

MCPL (margin coefficient for open long positions)	: UMC * LUM
MCPS (margin coefficient for open short positions)	: UMC * SUM

## 3.1.2.1 Margin Consumption Calculation for Non-Omnibus Accounts

Offset calculations among the contracts in the same margin instrument group are made on the quantity values multiplied by margin coefficients instead of the quantity values. For this reason, PTRM calculates below values considering the orders and trades for each instrument group.

Margin Consumed by Traded Long positions for all contracts in the group (TL)	:	$\Sigma_{each contract}(LP * MCPL)$
Margin Consumed by Traded Short positions for all contracts in the group (TS)	:	$\sum_{each isntrument} (SP * MCPS)$

Offset calculations among the contracts in the same margin instrument group are made on the quantity values multiplied by margin coefficients instead of the quantity values. After above calculations worst-case scenario is calculated for each margin instrument group. For that reason, risk calculations are done both considering the net positions for both long and short side. From this calculations, highest value is used as margin consumed value.

Margin consumed by net traded positions and all	:	Max (TL - TS * NK, 0)
long open orders for all contracts in the group (ML)		
Margin consumed by net traded positions and all	:	Max (TS – TL * NK, 0)
short open orders for all contracts in the group (MS)		
Margin Consumed (MC)	:	$MC_{contract} = max(ML, MS)$

Margin consumptions calculated for each margin instrument group are added together to find out the total margin consumption value for an account.

 $MC_{account} = \sum_{instrument group} MC$ 

## 3.1.2.2 Margin Consumption Calculation for Omnibus Accounts

For omnibus accounts, there is no margin offsetting among the contracts in the same group. PTRM calculates below values considering the orders and trades of an omnibus account:

Margin Consumed (MC)= Net Position Margin (MN): (LP) \* MCPL + (SP) \* MCPS

#### **3.2** Special Transactions for Margin Checks

In this section, special transactions are described further for clarification.

#### Trade Reports



Trade reports are included in position risk calculations as other trades. If an account is in a breach situation, trade reports on hold will be cancelled as all other existing orders are cancelled. Position closing orders of trade reports from risky accounts are going to be accepted to the system, otherwise rejected.

#### Stop Orders

Stop orders may have conditions to be triggered by price or by session. Until the condition is realized, these orders are untriggered. If an account is in a risky situation, untriggered orders are not cancelled while existing orders are cancelled. Untriggered orders from risky account will be accepted even if they are position increasing. Triggered orders are evaluated for margin at the time of triggering. If a triggered order would breach the margin check it will be rejected at the time of activation.

## Good-Till-Date and Good-Till-Cancelled Orders

Long-dated (GTC &GTD) orders are loaded into the system at the beginning of each day and are not be subject to any margin check in this step. PTRM do not reject or cancel any orders during the reload process. After reloading of day and good till cancelled orders, long dated orders will be cancelled along with all existing orders if the account is in a breach state.

#### Inactive Orders

According to the regulations set by the Exchange, orders can be inactivated by the system. If an accounts having inactivated orders is in a breach state, inactivated orders will be cancelled along with all existing orders. Records related to inactive orders are saved by PTRM application and activation of this orders -not necessarily have to be position decreasing - will be possible even if the account is in a breach state.

#### Intermonth Strategy Orders

Orders of different contract months included in the strategy are evaluated separately for strategy order margin checks. Open strategy orders are cancelled as well for accounts in margin breach situation. Rule of entering position closing orders only is valid for orders of all contract months included in the strategy.

## 4. POSITION LIMIT CHECK

Position limit checks will be enforced by PTRM within a single investor (investor-based position limit) or whole market (market-based position limit). In breach state, only position decreasing order entry is allowed. Principal of position limits are available at the Clearing Legislation.

Market members will not be able to monitor positon limits from PTRM application.

## 5. BLOCKED MEMBERS AND ACCOUNTS

PTRM may block order entry or position increasing order entry according to the regulations of member or account suspension set by Takasbank. Furthermore, if deemed necessary by the Exchange or Takasbank, Market member or account may blocked directly by PTRM.

The suspended accounts can be followed through PTRM application and information about the suspension level, state, open order status, time and date, and the suspension reason can be monitored. A suspended account can be blocked entirely or only the position decreasing order entry can be allowed. It is also possible to cancel all open orders of a suspended account. Information on which actions will be taken in the suspended account can be tracked through



PTRM. In addition to that, it is also possible to monitor the intraday suspension history for the related day.



# APPENDIX-7: EXAMPLES AND CALCULATION METHOD REGARDING CORPORATE ACTIONS

General principles regarding price adjustments carried out due to corporate action are given in the following;

SSF	: Single stock futures
SSO	: Single stock options
Pt	: Theoretical price of the stock calculated after the corporate action
Pcum	: Theoretical price of the ordinary stock which represents actual capital
Pnew	: Theoretical price of the new stock after corporate action
Pc	: Last closing price on the trading day before the corporate action
<b>n</b> 1	: Bonus issue ratio
<b>n</b> 2	: Subscription right use rate
D	: Gross dividend
R	: Subscription right exercise price for a stock with 1 TRY nominal value
Fbase	: Base price of SSF
Fcum	: Last trading day's settlement price of SSF before corporate action
Ecum	: SSO's strike price before corporate action
Eex	: SSO's strike price after corporate action
Scum	: Contract size before corporate actions (contract multiplier)
Sex	: Contract size after corporate actions (contract multiplier)
Vcum	: Total position value before corporate action
Vex	: Total position value after corporate action
AC	: Adjustment factor
Po	: Open positions

AC	:	$P_t / P_c$
Pbase	:	$F_{cum} \times AC$
Sex	:	S <sub>cum</sub> / AC
Vcum	:	$F_{cum} \times S_{cum} \times Po$
Vex	:	$F_{base} \times S_{ex} \times Po$
Eex	:	$E_{cum} \times AC$

General Formula:

$$P_{t} = \frac{P_{c} + (n_{2} \times R) - D}{1 + n_{1} + n_{2}}$$



## Adjustments Due to Corporate Actions for Single Stock Futures (SSF)

Adjustment examples for SSF in case of a corporate action are mentioned in this section.

Contract codes for SSF before and after corporate action are listed in the following Table 1.

Contract Codes Before Corporate Action Adjustment	Contract Codes After Corporate Action Adjustment			
F_GARAN0117	F_GARAN0117N1			
F_GARAN0217	F_GARAN0217N1			

Table 1: Contract Codes Before/After First Corporate Action Adjustment

As in Table 1, contract codes for the futures contracts on GARAN are F\_GARAN0117 and F\_GARAN0217.

In case of corporate action such as bonus/rights issue;

Open positions on F\_GARAN0117 and F\_GARAN0217 contracts shall be transferred to the new non-standard contracts F\_GARAN0117N1 and F\_GARAN0217N1. In a corporate action, the same group code (N1, N2, ..) may not be used in all contracts that are adapted, so contracts with the same instrument group codes may have different contract sizes. The new expiry months to be settled after the adaptation of the corporate action is processed as a standard contract.

In case second consecutive corporate action adjustment is applied (when the new expiry month comes and new contracts introduced), contract code examples are given in Table 2:

Table 2: Contract Codes Before/After Second Consecutive Corporate Action Adjustment

Contract Codes Before Second Corporate Action Adjustment				
F_GARAN0217N1 F_GARAN0317				
Contract Codes After Second Corporate Action Adjustment				
F_GARAN0217N2 F_GARAN0317N1				

After the first corporate action (before the second corporate action) future contract codes are  $F_GARAN0217N1$  and  $F_GARAN0317$ .

In case second corporate action adjustment is applied for GARAN;

F\_GARAN0217N1 and F\_GARAN0317 are closed. Open positions on these contracts are transferred to non-standard contracts F\_GARAN0217N2 and F\_GARAN0317N1 respectively.

Calculated adjustment factor is used in all adjustments applied on single stock futures' price and contract size for all open maturities. In the examples below, it is assumed that there is only one future contract on the relevant stock.



#### **Bonus Issue**

$$F_t = \frac{F_k}{1 + n_1}$$

130% Bonus issue and 100% rights issue of Company "B" is started to be made as of May 9, 2017. Closing price of B stock is 2.84 TRY on May 8, 2017 and price of stock B used in theoretical price calculations is 1.23 TRY on May 9, 2017.

 $P_{c} = 2.84$ 

$$\mathbf{P_{t}} = \frac{2.84}{(1+1.3)} = 1.23$$

Adjustment factor is calculated as dividing price used in theoretical price calculations by Index Directorate by the closing price on the trading day before the corporate action:

AC = 1.23/2.84 = 0.4330986

SSF's new base price is calculated by multiplying the previous day's settlement price by AC and rounding it to the nearest price tick according to the general rules of rounding:

$$\label{eq:Fcum} \begin{split} \textbf{F}_{\textbf{cum}} &= 3.42 \mbox{ (Future price before corporate action)} \\ \textbf{F}_{\textbf{base}} &= F_{cum} \times \mbox{ AC} \\ \textbf{F}_{\textbf{base}} &= 3.42 \times \mbox{ 0.4330986} = 1.48 \end{split}$$

Similarly, contract size will be adjusted as follows in order not to affect open position values in term of TRY after adjustment of price from 3.42 TRY to 1.48 TRY:

 $S_{cum} = 100$   $S_{ex} = S_{cum} / AC$  $S_{ex} = 100 / 0.4330986 = 230.89356 (231)$ 

On 8 May 2017, total position value of an investor who has 150 positions in this future contract is calculated as follows:

 $Po_{cum} = 150$ V<sub>cum</sub> = (S<sub>cum</sub>)×Open Positions ×Price=100×150×3.42=51,300 TRY

On 9 May 2017, investor's 150 positions are transferred to the non-standard contracts which are newly opened and investor's open position value is calculated as follows:

 $\begin{aligned} \textbf{Poex} &= 150 \\ \textbf{V_{ex}} &= (S_{ex}) \times \text{Open Positions } \times \text{New Contract's Base Price} \\ \textbf{V_{ex}} &= 231 \times 150 \times 1.48 = 51,282 \text{ TRY} \end{aligned}$ 



## **Rights Issues**

$$P_{t} = \frac{P_{c} + (n_{2} x R)}{1 + n_{2}}$$

100% rights issue of Company "C" is started to be made as of July 19, 2017. Closing price of C stock in spot market is 6.00 TRY on July 18, 2017 and price of B stock used in theoretical price calculations is 3.50 TRY on July 19, 2017.

 $P_{c} = 6.00$ 

$$\mathbf{P_{cum}} = \frac{\left[6.00 + (1 \times 1)\right]}{(1+1)} = 3.50$$

Adjustment factor is calculated as dividing price used in theoretical price calculations by Index Directorate by the closing price on the trading day before the corporate action:

**AC** = 3.50/6.00 = 0.5833333

SSF's new base price is calculated as multiplying previous day's settlement price by AC and rounding it to the nearest price tick according to the general rules of rounding:

 $\label{eq:Fcum} \begin{array}{l} \textbf{F_{cum}} = 6.20 \mbox{ (Futures price before corporate action)} \\ \textbf{F_{base}} = F_{cum} \times AC \\ \textbf{F_{base}} = 6.20 \times 0.5833333 = 3.62 \mbox{ TRY} \end{array}$ 

Similarly, contract size will be adjusted as follows in order not to affect open position values in term of TRY after adjustment of price from 6.20 TRY to 3.62 TRY:

 $S_{cum} = 100$   $S_{ex} = S_{cum} / AC$  $S_{ex} = 100 / 0.5833333 = 171.42955 (171)$ 

On 18 July 2017, total position value of an investor who has 150 open positions in this future contract is calculated as follows:

**Pocum**= 150 **V**<sub>eski</sub> =  $(S_{cum})$ ×Open Positions ×Price =  $100 \times 150 \times 6.20 = 93,000$  TRY

On 19 July 2017, investor's 150 open positions are transferred to the non-standard contracts which are newly opened and investor's open position value is calculated as follows:

 $\begin{array}{l} \textbf{Poex} = 150 \\ \textbf{V_{ex}} = (S_{ex}) \times \text{Open Positions } \times \text{New Contract's Base Price} \\ \textbf{V_{ex}} = 171 \times 150 \times 3.62 = 92,853 \ \text{TRY} \end{array}$ 



#### **Bonus and Rights Issue**

$$P_{t} = \frac{P_{c} + (n_{2} \times R)}{1 + n_{1} + n_{2}}$$

50% Bonus issue and 100% rights issue of Company "D" is started to be made as of July 19, 2017. Closing price of D stock is 4.82 TRY on July 18, 2017 and price of stock D used in theoretical price calculations is 2.33 TRY on July 19, 2017.

 $P_{c} = 4.82$ 

$$\mathbf{P_t} = \frac{\left[4.82 + (1 \times 1)\right]}{(1 + 1 + 0.5)} = 2.33$$

Adjustment factor is calculated as dividing price used in theoretical price calculations by Index Directorate by the closing price on the trading day before the corporate action:

AC = 2.33/4.82 = 0.4834025

SSF's new base price is calculated by multiplying the previous day's settlement price by AC and rounding it to the nearest price tick according to the general rules of rounding:

$$\label{eq:Fcum} \begin{split} F_{cum} &= 5.10 \ (Future \ price \ before \ corporate \ action) \\ F_{base} &= F_{cum} \times \ AC \\ F_{base} &= 5.10 \times \ 0.4834025 = 2.47 \ TRY \end{split}$$

Similarly, contract size will be adjusted as follows in order not to affect open position values in term of TRY after adjustment of price from 5.10 TRY to 2.47 TRY:

 $\begin{aligned} S_{cum} &= 100 \\ S_{ex} &= S_{cum} \ / \ AC \\ S_{ex} &= 100 \ / \ 0.4834025 = 206.86802 \ (207) \end{aligned}$ 

On 19 July 2017, total position value of an investor who has 150 positions in this future contract is calculated as follows:

**Po**<sub>cum</sub> = 150 **V**<sub>cum</sub> =  $(S_{cum}) \times Open Positions \times Price=100 \times 150 \times 5.10 = 76,500 TRY$ 

On 18 July 2017, investor's 150 positions are transferred to the non-standard contracts which are newly opened and investor's open position value is calculated as follows:

 $\begin{array}{l} \textbf{Po_{ex}} = 150 \\ \textbf{V_{ex}} = (S_{ex}) \times Open \ Positions \ \times New \ Contract's \ Base \ Price \\ \textbf{V_{ex}} = 207 \ \times 150 \times 2.47 = 76,693 \ TRY \end{array}$ 



## **Capital Decrease**

 $P_{t} = \frac{(\text{Number of stocks before capital decrease X } P_{c} \text{ before capital decrease})}{\text{Number of Stocks after capital decrease}}$ 

20% capital decrease of Company "D" is started to be made as of July 19, 2017. Closing price of D stock is 4.84 TRY on July 18, 2017 and price of D stock used in theoretical price calculations is 6.05 TRY on July 19, 2017.

 $P_{c} = 4.84$ 

 $\mathbf{P_t} = \frac{[4.84 \times 1)]}{(1 - 0.2)} = 6.05$ 

Adjustment factor is calculated as dividing price used in theoretical price calculations by Index Directorate by the closing price on the trading day before the corporate action:

AC = 6.05/4.84 = 1.2500000

SSF's new base price is calculated by multiplying the previous day's settlement price by AC and rounding it to the nearest price tick according to the general rules of rounding:

$$\label{eq:Fcum} \begin{split} \mathbf{F_{cum}} &= 5.10 \ (Future \ price \ before \ corporate \ action) \\ \mathbf{F_{base}} &= F_{cum} \times \ AC \\ \mathbf{F_{base}} &= 5.10 \times \ 1.2500000 = 6.38 \ TRY \end{split}$$

Similarly, contract size will be adjusted as follows in order not to affect open position values in term of TRY after adjustment of price from 5.10 TRY to 6.38 TRY:

 $\begin{aligned} S_{cum} &= 100 \\ S_{ex} &= S_{cum} \text{ / AC} \\ S_{ex} &= 100 \text{ / } 1.2500000 = 80 \end{aligned}$ 

On 18 July 2017, total position value of an investor who has 150 positions in this future contract is calculated as follows:

 $\begin{array}{l} \textbf{Po_{cum}=150} \\ \textbf{V_{cum}=(S_{cum})\times Open \ Positions \ \times Price=100\times 150\times 5.10=76,500 \ TRY } \end{array}$ 

On 19 July 2017, investor's 150 positions are transferred to the non-standard contracts which are newly opened and investor's open position value is calculated as follows:

 $\begin{aligned} \textbf{Po}_{ex} = 150 \\ \textbf{V}_{ex} = (S_{ex}) \times \text{Open Positions } \times \text{New Contract's Base Price} \\ \textbf{V}_{ex} = 80 \times 150 \times 6.38 = 76,560 \text{ TRY} \end{aligned}$ 

## Adjustments Due to Corporate Actions for Single Stock Options (SSO)

Adjustment examples for SSO in case of a corporate action are mentioned in this section.



Contract codes for European type standard call and put options on AKBNK with 02/17 expiry and 6.75 strike price before corporate action are listed in Table 3.

Before Adjustment	After Adjustment				
O_AKBNKE0217 C 6.75 O_AKBNKE0217 P 6.75 TM_O_AKBNKE060219 C 6.75	O_AKBNKE0217 C 3.78 N1 O_AKBNKE0217 P 3.78 N1 TM_O_AKBNKE060219 C 6.75 N1	O_AKBNKE0217 C 3.75 O_AKBNKE0217 P 3.75			

 Table 3: Contract Codes Before/After First Corporate Action Adjustment

Contract codes for European type standard call and put options on AKBNK with 02/17 expiry and 6.75 strike price before corporate action are O\_AKBNKE0217C6.75, O\_AKBNKE0217P6.75 and TM\_O\_AKBNKE060219C6.75 as listed in Table 3.

In case of corporate action such as bonus/rights issue;

Open positions on standard contracts shall be transferred to the newly opened non-standard O AKBNKE0217C6.75, O AKBNKE0217P6.75 contracts. in addition and TM\_O\_AKBNKE060219 C 6.75 standard contracts are closed, and new standard contracts are opened after the relevant underlying asset's theoratical price is calculated. Contract codes for European type standard call and put options on AKBNK with 02/17 expiry and 3.75 strike price after corporate action shall be O AKBNKE0217C3.75 and O AKBNKE0217P3.75 and contract codes for non-standard contracts with 02/17 expiry and adjusted 3.78 strike price shall be O\_AKBNKE0217C3.78N1, O\_AKBNKE0217P3.78N1 and TM\_O\_AKBNKE060219 C 6.75N1 as listed in Table 3. The contracts to be opened may be re-opened as new contracts with the same ISIN codes if they have already been opened in the trading system but closed for various reasons. In corporate action, the same group code (N1, N2, ..) may not be used in all contracts that are adapted, so contracts with the same instrument group codes may have different contract sizes. The newly opened contracts, after corporate action, with new strike prices are processed as standard contracts.

In case second consecutive corporate action adjustment is applied, contract code examples are given in Table 4.

Table 4: Contract Codes After Second Consecutive Corporate Action Adjustment

Before Adjustment				
O_AKBNKE0217 C 3.78 N1	O_AKBNKE0217 C 3.75			
O_AKBNKE0217 P 3.78 N1	O_AKBNKE0217 P 3.75			

After Adjustment				
O_AKBNKE0217 C 2.86 N1	O_AKBNKE0217 C 2.83 N1	O_AKBNKE0217 C 3.00		
O_AKBNKE0217 P 2.86 N1	O_AKBNKE0217 P 2.83 N1	O_AKBNKE0217 P 3.00		



In case of second corporate action such as bonus/rights issue for AKBNK;

Non-standard contracts O\_AKBNKE0217C3.78N1 and O\_AKBNKE0217P3.78N1 are closed. Open positions on these contracts are transferred to newly opened non-standard contracts O\_AKBNKE0217C2.86N1 and O\_AKBNKE0217P2.86N1, and O\_AKBNKE0217C3.75 and O\_AKBNKE0217P3.75 contracts are closed. Positions on these contracts are transferred to newly opened O\_AKBNKE0217C2.83N1 and O\_AKBNKE0217P2.83N1 non-standard contracts. Finally new standard contracts are opened after the theoratical price of the underlying asset is calculated.

Examples in the sections below, it is assumed that subscription right is used for 1 TRY on a stock whose nominal value is 1 TRY. In case subscription right at a premium, subscription right cost in the formula below should take into account as (R).

Calculated adjustment factor is used in all adjustments applied on single stock options' strike price and contract size for all open maturities. In the examples below, it is assumed that there is only one option contract on the relevant stock.

#### **Bonus Issue**

$$F_t = \frac{F_k}{1 + n_1}$$

130% bonus issue of company "B" is started to be made as of May 10,2017. Closing price of B stock is 2.84 TRY on May 9, 2017 and price of stock B used in theoretical price calculations is 1.23 TRY on May 10, 2017.

## $P_{c}=2.84$

$$\mathbf{P_t} = \frac{2.84}{(1+1.3)} = 1.23$$

Adjustment factor is calculated as dividing price used in theoretical price calculations by Index Directorate by the closing price on the trading day before the corporate action:

AC= 1.23 / 2.84 = 0.4330986

New strike price for call option on B stock is equal to adjustment factor times previous strike price:

$$\begin{split} \mathbf{E_{cum}} &= 3.00\\ \mathbf{E_{ex}} &= \mathbf{E_{cum}} \times \mathbf{AC}\\ \mathbf{E_{ex}} &= 3.00 \times 0.4330986 = 1.30 \ (1.2993 \ \text{rounded to two decimal places.}) \end{split}$$



Similarly, contract size will be adjusted as follows in order not to affect open position values in term of TRY after adjustment of strike price from 3.00 TRY to 1.30 TRY:

 $\begin{aligned} S_{cum} &= 100\\ S_{ex} &= S_{cum} \text{ / AC}\\ S_{ex} &= 100 \text{ / } 0.4330986 \text{= } 231 \text{ (} 230.8936 \text{ rounded to the nearest integer.)} \end{aligned}$ 

## **Rights Issue**

$$P_{t} = \frac{P_{c} + (n_{2} \times R)}{1 + n_{2}}$$

100% rights issue of Company "C" is started to be made as of May 10, 2017. Closing price of C stock in spot market is 6.00 TRY on May 9, 2017 and price of B stock used in theoretical price calculations is 3.50 TRY on May 10, 2017.

 $P_{1st} = 6.00$ 

$$\mathbf{P_t} = \frac{[6.00 + (1 \times 1)]}{(1+1)} = 3.50$$

Adjustment factor is calculated as dividing price used in theoretical price calculations by Index Directorate by the closing price on the trading day before the corporate action:

AC = 3.50 / 6.00 = 0.5833333

New strike price for call option on C stock is equal to adjustment factor times previous strike price:

$$\begin{split} & \textbf{E_{cum}} = 5.75 \\ & \textbf{E_{ex}} = E_{cum} \times \text{ AC} \\ & \textbf{E_{ex}} = 5.75 \times 0.5833333 = 3.35 \text{ (3.3541 rounded to two decimal places.)} \end{split}$$

Similarly, contract size will be adjusted as follows in order not to affect open position values in term of TRY after adjustment of strike price from 5.75 TRY to 3.35 TRY:

 $\begin{aligned} S_{cum} &= 100 \\ S_{ex} &= S_{cum} \text{ / AC} \\ S_{ex} &= 100 \text{ / } 0.5833333 = 171 \text{ (}171.4296 \text{ rounded to the nearest integer.)} \end{aligned}$ 

#### **Bonus and Rights Issue**

$$P_{t} = \frac{P_{c} + (n_{2} \times R)}{1 + n_{1} + n_{2}}$$

%50 Bonus issue and 100% rights issue of Company "D" is started to be made as of May 10, 2017. Closing price of D stock in cash market is 4.82 TRY on May 9, 2017 and price of D stock used in theoretical price calculations is 2.33 TRY on May 10, 2017.



 $P_{1st} = 4.82$ 

$$\mathbf{P_t} = \frac{[4.82 + (1 \times 1)]}{(1 + 1 + 0.5)} = 2.33$$

Adjustment factor is calculated as dividing price used in theoretical price calculations by Index Directorate of the Exchange by the closing price on the trading day before the corporate action:

AC = 2.33 / 4.82 = 0.4834025

New strike price for call option on D stock is equal to adjustment factor times previous strike price:

$$\begin{split} \mathbf{E_{cum}} &= 5.00\\ \mathbf{E_{ex}} &= \mathbf{E_{cum}} \times \mathbf{AC}\\ \mathbf{E_{ex}} &= 5.00 \times 0.4834025 = 2.42 \ (2.4170 \text{ rounded to two decimal places.}) \end{split}$$

Similarly, contract size will be adjusted as follows in order not to affect open position values in term of TRY after adjustment of strike price from 5.00 TRY to 2.42 TRY:

 $\begin{aligned} S_{cum} &= 100 \\ S_{ex} &= S_{cum} \text{ / AC} \\ S_{ex} &= 100 \text{ / } 0.4834025 = 207 \text{ (206.8680 rounded to the nearest integer.)} \end{aligned}$ 

## **Capital Decrease**

 $F_t = \frac{(Number of stocks before capital decrease X P_c before capital decrease)}{Number of stocks after capital decrease}$ 

20% capital decrease of Company "D" is started to be made as of July 19, 2017. Closing price of D stock in spot market is 4.84 TRY on July 18, 2017 and price of D stock used in theoretical price calculations is 6.05 TRY on July 19, 2017.

 $P_{c} = 4.84$ 

 $\mathbf{P_{t}} = \frac{\left[4.84 \times 1\right)}{(1 - 0.2)} = 6.05$ 

Adjustment factor is calculated as dividing price used in theoretical price calculations by Index Directorate by the closing price on the trading day before the corporate action:

**AC** = 6.05/4.84 = 1.2500000

New strike price for call option on D stock is equal to adjustment factor times previous strike price:

 $\begin{aligned} \mathbf{E_{cum}} &= 4.75 \\ \mathbf{E_{ex}} &= \mathbf{E_{cum}} \times \mathbf{AC} \\ \mathbf{E_{ex}} &= 4.75 \times 1.2500000 = 5.94 \ (5.9375 \ \text{rounded to two decimal places.}) \end{aligned}$ 



Similarly, contract size will be adjusted as follows in order not to affect open position values in term of TRY after adjustment of strike price from 4.75 TRY to 5.94 TRY:

 $\begin{aligned} S_{cum} &= 100 \\ S_{ex} &= S_{cum} \ / \ AC \\ S_{ex} &= 100 \ / \ 1.2500000 = 80 \end{aligned}$ 



# APPENDIX-8: DERIVATIVES MARKET MARKET MAKER COMMITMENT LETTER

..../..../....

#### TO BORSA İSTANBUL A.Ş. GENERAL MANAGEMENT İSTANBUL

In the event we are admitted as a market maker at Borsa İstanbul Derivatives Market, we accept, declare and undertake that;

- 1. Any and all kinds of legislation issued by the Capital Markets Board (the Board), Borsa İstanbul A.Ş. (the Exchange) and the Clearing House chosen by the Exchange and all similar regulation, provisions and the terms of this covenant shall be applied to all the executed transactions, and the Board and the Exchange shall be authorized to construe the mentioned provisions and terms, in cases of uncertainty to adopt decisions in consideration of the general provisions, and to regulate and direct the practice;
- **2.** Within the framework of the relevant legislation, the Exchange has any and all kinds of regulative and changing authority regarding the transactions to be executed at the Exchange;
- **3.** We have unlimited liability regarding the obligations arising out of the Exchange transactions executed by our representatives that are assigned and notified to the Exchange by our Company and through the allocated protocols for our Company for executing transactions at the Exchange. We shall fulfill all the conditions requested by the Exchange. Our company is responsible for conserving user name and password used to access the system by our representative and the allocated protocols for our Company, we shall be liable for any kinds of legal and/or financial liabilities arising out of using market maker accounts by unauthorized persons by the means of obtaining our representative's user name and password by third parties with or without the consent of our representatives;
- **4.** Authorization of market making is instituted by the Exchange based on contract, instrument group, instrument type, instrument class and/or contract month;
- 5. Market making activities are implemented only on instrument group, instrument type, instrument class and/or contract months applied and will be approved by the Exchange; market making shall not be implemented on unauthorized instrument group, instrument type instrument class and contract month;
- 6. The Exchange may consider the performance of market makers based on certain criteria and periods specified by the Exchange. The Exchange may withdraw unilaterally the authority of the market maker whose performance is inadequate. Besides, in case any and all kinds of



legislations issued by the Board, the Exchange and the Clearing House are not applied, Exchange may withdraw unilaterally the authority of the market maker;

- In case we want to withdraw from market maker covenant, we shall apply in a written form to the Exchange. Market maker obligations shall apply until the decision of the Exchange and terminated after the approval of the Exchange;
- 8. Market maker account/s independent from customer and other portfolio accounts shall be used for market making activities;
- **9.** The positions hold in the market maker accounts shall not be transferred to other accounts through Give-up functionality defined in the Clearing House procedures without the consent of the Exchange or the Clearing House;
- **10.** We shall fulfill the obligations specified by the Exchange for the contracts in which we will be authorized as market maker;
- 11. We are limited with the position limits specified by the Exchange or the Clearing House.The Exchange or the Clearing House have the authority to amend these position limits;
- **12.** We shall be attentive to fulfill the performance criteria specified by the Exchange. We shall obey the criteria and rules to be specified by the Exchange;
- **13.** We shall deposit the sufficient margin to the portfolio accounts on which market making activities are implemented to fulfill market maker obligations;
- 14. The rights of market makers may be withdrawn by the Exchange;
- **15.** In case a default on the market maker account/s, the regulations on the Membership Covenant signed by our company shall be valid. We will notify the Exchange in writing in the event that our activities are suspended for any reason, including bankruptcy and/or liquidation, our authorization certificates are canceled and/or we become a party to a transaction that causes the transformation into another legal entity as a result of a takeover, purchase or merger by another institution, or the minimum conditions for market making are lost, the Stock Exchange will determine whether the market making will continue. If the Exchange decides to terminate the market making, the procedure for liquidating the rights and obligations arising from market making may also be determined, and in this case, we will comply with the procedures and principles determined by the Exchange;
- **16.** In case physical delivery instead of cash settlement, the regulations implemented to the other customer and portfolio accounts shall be valid for market maker account/s;
- 17. In cases not defined by the provisions of this covenant, the provisions of the Relevant Legislation and general provisions shall apply. In case any amendments on the Relevant Legislation, amended provisions shall be applied;



18. In the event of any controversy, the records of the Exchange and the Clearing House shall be valid and constitute definite evidence in accordance with related article of the Civil Procedure Law.

Signing Authorities, Company Title and Company Seal



## **APPENDIX 9: MARKET MAKER APPLICATION FORM**

To Borsa İstanbul A.Ş. General Management:

We hereby apply to start market making activities in accordance with the relevant arrangements and declare that our systematic, technical and infrastructural preparations have been completed.

Sincerely yours,

Market Member that is authorized as Market Maker:
Market Maker Institution:
Market Member through which the market maker will connect to VIOP
Trading System:
Clearing member that the market Maker's trading Account is with:
Instrument class/Type/Group for which market making is requested:
Session for which market making is requested: (Normal/Evening)
Additional Instrument Class/Type/Group If market making activities
are performed through customer accounts in group A contracts :
Market making initiation date:
Contact person responsible for market making activities:
Title of the contact person:
Communication information of the contact person
Contact person responsible for market making activities:
Title of the contact person:
Communication information of the contact person:

## OFFICIAL TITLE OF THE INVESTMENT FIRM

Signature

Signature

Contact Person

Contact Person

Name

Name



Contracts	X -10: NORMAL SESS Contracts for which the Market Maker is Responsible	Spread Requirements						Market Presence ***
	For the standard contracts with two closest expiry dates in at least 10 single stock futures	GROUP 1 & GROUP 2 Best Bid PriceTRY	<b>T</b>	ime to Exj <30	piry (Days <45	e) ≥45	Minimum Order Quantity	For a calculation period, 60% of the total amount of time during which the market was open.
	contracts.			Maximun				
		<1	0.02	0.02	0.02	0.02	500	
*	GROUP 1	<5	0.03	0.03	0.04	0.05	150	
Single Stock Futures		<10	0.04	0.05	0.07	0.10	50	
Itu	GROUP 2	<20	0.08	0.10	0.14	0.20	25	
F	UKUUI 2	<40	0.14	0.20	0.30	0.40	15	
ock	GROUP 3	<60	0.2	0.30	0.40	0.60	10	
Sto	URUUI J	<80	0.3	0.40	0.60	0.80	10	
le		<100	0.4	0.50	0.70	1.00	10	
ing		<150	0.5	0.70	0.90	1.20	10	
Ń		<200	0.6	0.90	1.40	1.80	10	
		<250	0.8	1.20	1.70	2.40	7	
		<375	1.00	1.50	2.20	3.00	7	
		<500	1.50	2.30	3.30	4.50	5	
		<750	2.00	3.00	4.50	6.00	5	
		<1000	3.00	4.00	5.50	8.00	5	
		≥1000	4.00	4.50	6.00	9.00	5	

## ADDENIDIV 10. NODWAL CESSION ODLICATIONS OF MADZET MAZEDS



Contracts	Contracts for which the Market Maker is Responsible	Spread Requiremen	ts**					Market Presence ***
		GROUP 3		Time to Ex	piry (Day	5)		
		Best Bid PriceTRY	<15	<30	<45	≥45	Minimum Order Quantity	
				Maximu	n Spread		Quantity	
		<1	0.02	0.02	0.03	0.04	200	
		<5	0.04	0.04	0.06	0.08	40	
		<10	0.08	0.08	0.12	0.16	20	
		<20	0.12	0.16	0.24	0.34	10	
		<40	0.14	0.24	0.34	0.40	10	
		<60	0.30	0.46	0.60	0.80	5	
		<80	0.40	0.60	0.90	1.20	5	
		<100	0.50	0.80	1.10	1.30	5	
		<150	0.60	0.90	1.20	1.40	5	
		<200	0.70	1.40	1.80	2.10	5	
		<250	1.00	1.80	2.40	2.80	5	
		<375	1.50	2.00	3.00	3.50	5	
		<500	2.20	3.00	4.50	5.30	5	
		<750	3.00	4.00	6.00	7.00	5	
		<1000	4.50	5.40	8.00	9.10	5	
		≥1000	5.00	6.00	9.00	10.00	5	
*	For the standard						1	For a calculation
gle ck nns <sup>5</sup>	contracts with two closest expiry dates in	The C	Closest E	xpiry Time	to Expiry			period, 60% of the total amount of time
Single Stock Options*	at least 5 single stock		Best B	id Price- TR			Minimum	during which the
S S OF	option contracts.	0.00- 1.00- 0.99 3.00	3.01- 5.00		.01- 25.0 5.00 50.0	<u>\\\\\\\\</u>	Order Quantity	market was open.



Contracts	Contracts for which the Market Maker is Responsible	Spread Req	uiremer	nts**								Market Presence ***
	i.for 1 in-the-money, 1			1	aximun							
	at-the-money and 1 out-of-the-money call and put option contracts at the nearest contract month,	0.25	0.35	0.50	1.0	00	2.50	3.75	5.00		10	
	ii.for 1 in-the-money, 1 at-the-money and 2		The Sec	cond Clo	osest E	xpiry	Time to	) Expiry				
	out-of-the-money call and put option			Best	t Bid P	rice- '	ГRY				nimum	
	contracts at the next contract month.	0.00- 0.99	1.00- 3.00	3.01- 5.00			15.01- 25.00	25.01- 50.00	>50.00	_	rder antity	
	Strike prices that are in-			Ma	aximun	n Spr	ead					
	the-money and out-of-	0.45	0.70	0.75	1.7	75	3.00	4.75	6.00		10	
	the-money are the strike prices that are the closest to the at-the- money strike price.	-										
	For two closest expiry			The	Closes	st Exp	piry Tin	ne to Ex	piry		Minimum	For a calculation
	dates of call and put options; 1 in-the-						30 days				Order	period, 70% of the total amount of time
_	money, 1 at-the-money				Bes	st Bid	Price-	ΓRY			Quantity	during which the
Index Option	and 2 out-of-the-money strike prices. Strike prices that are in-	Underlying Asset	-	-	-	00.00 - 19.99	250.00 - 499.99	500.00 - 749.99	750.00 - 1000.0 0	>1000 .00		market was open.
Jude	the-money are the closest strike prices to		I		Μ	Iaxim	um Spr	ead				
I	at-the-money strike		5.00	12.00 20	0.00	30.00	35.00	40.00	45.00	50.00	10	
	price.					30-	60 days				Minimum	
		XU030D			Bes	st Bid	Price-	ГRY			Order Quantity	



Contracts	Contracts for which the Market Maker is Responsible	Spread Req	uirem	ents**	:							Market Presence ***
	Out-of-the-money strike prices for call options;		0.00	20.00	60.00	100.00	250.00	500.00	750.00 - 1000.0	>1000		
	i. the second and the		19.99	59.99	99.99	249.99	499.99	749.99	0			
	third closest strike			1	1		um Spr		[			
	prices to the at the		10.00	15.00	25.00	35.00	50.00	55.00	60.00	65.00	10	
	money strike price for the closest expiry date, ii.the third and fourth		1								1	
	strike prices closest to			The .	Second	d Closes	st Expir	y Time t	to Expir	y	Minimum	
	the at-the-money strike					60	-90 days				Order	
	price for the second						d Price-	-	1	T	Quantity	
	closest expiry date.	Underlying	0.00	20.00	60.00	100.00	250.00	500.00	750.00	>1000.		
	For put options, the closest strike prices to	Asset	- 19.99	_ 59.99	- 99.99	- 249.99	499.99	749.99	1000.00	00		
	the at-the-money strike						num Spi					
	price.		10.00	18.00	30.00	40.00	60.00	70.00	75.00	80.00	10	
						>	90 days		•		Minimum	
						Best Bi	d Price-	TRY			Order Quantity	
			0.00	20.00	60.00	100.00	250.00	500.00	750.00	>1000.		
		XU030D	- 19 99	_ 59.99	- 99.99	- 249.99	- 499.99	- 749.99	- 1000.00	00		
			17.77	57.77	,,,,,		num Spi		1000.00			
			15.00	20.00	35.00	50.00	70.00	80.00	85.00	90.00	10	
						1		1	1		1]	



Contracts	Contracts for which the Market Maker is Responsible	Spread	Requirements**						Market Presence ***
				Tin	ne to Exp	oiry(Day	ys)		For a calculation
			Best Bid Price- TRY	<30	<60	<90	≥90	Minimum Order Quantity	period, 70% of the total amount of time
				Ν	laximun	n Spread	1		during which the
			<1,000	4.00	4.00	5.00	5.00	10	market was open.
			<1,250	4.00	5.00	5.00	6.00	10	
			<1,500	5.00	5.00	6.00	6.00	10	
			<1,750	5.00	6.00	6.00	7.00	10	
			<2,000	6.00	6.00	7.00	7.00	10	
			<2,500	6.00	7.00	7.00	8.00	10	
s			<3,000	7.00	7.00	8.00	8.00	10	
Index Futures	For two closest		<3,500	7.00	8.00	8.00	9.00	10	
Fut	expiry dates of		<4,000	8.00	8.00	9.00	10.00	10	
ex	futures		<4,500	8.00	9.00	10.00	12.00	10	
Ind			<5,000	9.00	10.00	12.00	14.00	10	
			<6,000	10.00	12.00	14.00	16.00	10	
			<7,000	12.00	14.00	16.00	18.00	10	
			<8,000	14.00	16.00	18.00	21.00	10	
			<9,000	16.00	18.00	20.00	24.00	10	
			<10,000	18.00	20.00	23.00	28.00	10	
			<12,500	22.00	25.00	28.00	33.00	10	
			<15,000	27.00	30.00	35.00	40.00	10	
			<17,500	32.00	35.00	43.00	48.00	10	
			<20,000	37.00	40.00	50.00	58.00	10	
			≥20,000	42.00	45.00	55.00	65.00	10	



Contracts	Contracts for which the Market Maker is Responsible	Spread Req	uireme	nts**							Market Presence ***
	For contracts with two				Time to l	Expiry(l	Days)		M	linimum	For a calculation
ncy es	closest expiry dates.	Underlying	n Assot	<30	<60	<90	)	≥90		Order	period, 70% of the
Currency Futures		Ondertying	gAsset		Maxim	um Spr	ead		Q	Juantity	total amount of time during which the
Fu		RUBT	RY	0.00150	0.00200	0.003	00 0	0.00400		50	market was open.
		CNHT	RY	0.0150	0.0200	0.02	50	0.0350		50	
	For two closest expiry										For a calculation
	dates of call and put options; 1 in-the-				Closest E	1 0				Minimu m Order	period, 70% of the total amount of time
	money, 1 at-the-money		0 7 1		ime to Exp	•	. 1 4 1			Quantity	during which the
	and 2 out-of-the-		0-7 day		D:1D :		-14 days	5			market was open.
	money. Strike prices that are in-	0- 4	0 - 10	00	Bid Price-	40 –	100 -	175-		-	
	the-money and out-of-			$\begin{vmatrix} 0 & - \\ 4.99 \end{vmatrix} \ge 173$			100 – 174.99	299.99	≥300		
	the-money are the				ximum Sp	read					
tion	strike prices that are the closest to the at-the-	15	20	30 45	30	35	60	75	105	100	
Currency Option	money strike price.										
nrr					Closest Ex					Minimum	
Ŭ					ne to Expi	ry				Order Quantity	
					>14_days					Quantity	
		-		Best	Bid Price-	TRY		T			
		0 – 99.99	100	- 174.99	175 – 299.99	300-	499.99	≥500	0		
				Max	imum Spr	ead					
		55		65	80		140	200	)	100	



Contracts	Contracts for which the Market Maker is Responsible	Spread	Requi	remei	nts**									Market Presence ***
					The Se	cond C	losest	Expiry				Minim		
					]	Fime to	Expir	·у				Orde		
			0	)-45 da	2	5						Quant	ity	
							rice- T			1	1			
		0 – 99.99	100 – 174.99	175 - 299.9		≥500	0 – 00 00	100 – 174 99	175- 299.99	300 – 499.99	≥500			
		,,,,,	99.99       174.99       299.99       499.99       ≥300       99.99       174.99       299.99       499.99       ≥300         Maximum Spread											
		65	70	90	150	200	65	70	90	160	210	100		
	For contracts with two					Tim	e to E	Cxpiry(I	Days)			Minimur	m	For a calculation
lls	closest expiry dates.	Unde	rlying A	Asset	<30	<6	50	<90	)	≥90		Order		period, 70% of the total amount of time
Precious Metals Futures			riying r	15500		Μ	aximı	ım Spre	ead			Quantity	У	during which the
cious Me Futures		X	AUTRY	ľ	2.40	3.0	50	4.80	)	6.00		200		market was open.
iou Fut		X	AUUSI	)	1.30	1.5	50	1.70	)	2.00		20		
rec ]		X	AGUSI	)	0.050	0.0		0.07	0	0.080		200		
4			PTUSD		8	8		8		8		10		
		X	PDUSE	)	15	1	5	15		15		10		
Metal Futures	For contracts with two		Under	rlying	Asset			Expiry(			Minir Ord Quar	ler		For a calculation period, 70% of the total amount of time during which the market was open.
W	closest expiry dates.				-	<30	<60 Maxin	<90 num Spi		90				



Contracts	Contracts for which the Market Maker is Responsible	Spread Re	equiremer	nts**								Market Presence ***
			XCUUS	D 1	00 1	00	100	100	10			
											-	
	For contracts with 2.								I	2.00	. 1	For a calculation
ures	and 3. Expiry date.	Month	January	February	Marc	h .	April	May	June	Or	imum der intity	period, 60% of the total amount of time during which the
icity Fut		Maximum Spread	250	250	250		250	250	250	2	20	market was open.
Base Load Electricity Futures		Month	July	August	Septer	m O	October	Novem ber	Decem ber	Mini Orde Quar	er	
Base Lo		Maximum Spread	250	250	250		250	250	250	2	20	
ase city												For a calculation period, 60% of the
ly Bá ectric ures	For contracts with three	Quarterly	Q1	Q2	Q3	Q4	Min	nimum Or	der Qua	ntity		total amount of time during which the
Quarterly Base Load Electricity Futures	closest expiry dates.	Maximum Spread	250	250	250	250		2	0			market was open.
L0 L												



Contracts	Contracts for which the Market Maker is Responsible	Spread Requirements**	Market Presence ***
Yearly Base Load Electricity Futures	Closest yearly contract.	YearlyYMinimum Order QuantityMaximum Spread25020	For a calculation period, 60% of the total amount of time during which the market was open.
Physically Delivered Government Bond Futures Contracts****	For contract with closest expiry date.	UnderlyingMaksimum SpreadMinimum Order QuantityGovernment Bond with 0-2 years to maturity (including 2 years)0.4010Government Bond with 2-5 years to maturity (including 5 years)0.6010Government Bond with 5-10 years to maturity Government Bond with 5-10 years to maturity0.8010Government Bond with 5-10 years to maturity maturity0.8010	For a calculation period, 60% of the total amount of time during which the market was open.



Contrac	s Contracts for which the Market Maker is Responsible	Spread Requirements**	Market Presence ***

\* Market makers authorized in Single Stock Futures and Options will be able to update their choice of instrument class/type and these update requests shall be submitted to VIOP 10 days prior to the beginning of the month in which they will be responsible for market making. Market makers may be responsible for contracts which will be non-standart after the corporate action. Contracts, that were created as flexible contracts but then it needs to be created by the system as usual due to having standart expiration date and/or strike price, can be determined as responsible contracts for market makers even if the contract codes are different.

The strike prices that the market makers are responsible for are reported the Market members on the corresponding day of the morning.

\*\* The market maker are liable to fulfill the spread requirement by entering bilateral (buy-sell) orders for the contracts. The best bid price used in the determination of spread obligations is the best bid price sent by the market maker member with its market maker account in the contract for which it is responsible. If there is only sell order (within the scope of obligations of market makers), the responsibility shall be deemed to be fulfilled in case the difference between sell order and the maks. spread corresponding to this sell order is smaller than the price tick of the contract.

\*\*\* Market presence is evaluated on the basis of the best bid and ask day limit orders sent by the market maker from the relevant market maker account.

\*\*\*\* The maturity period of underlying is updated on a montly basis.



## **APPENDIX -11: NORMAL SESSION RIGHTS OF MARKET MAKERS**

Contracts	Underlying Asset	MM Portfolio Account- Exchange Fee Discount		Required Presence Rate For Exchange Fee Discount	Exemption of Voluntary Order Cancellation Fee (For MM Accounts)		Trade Value Coefficient	Market Presence Ratio Coefficient	Connection Incentives*
Equity Futures	GROUP 1	100%	-	35%	Yes	10%	0.60	0.40	
Equity Futures	GROUP 2	100%	-	35%	Yes	20%	0.60	0.40	1 free Market Maker FixAPI or OUCH if market making



Contract		nderlying sset	MM Portfolio Account- Exchange Fee Discount		Required Presence Rate For Exchange Fee Discount	Exemption of Voluntary Order Cancellation Fee (For MM Accounts)		Trade Value Coefficient	Market Presence Ratio Coefficient	Connection Incentives*
Equity Futures	(	GROUP 3	100%	_	35%	Yes	30%	0.60	0.40	activities are performed through MM portfolio accounts.
Equity Options	, ]	EQUITY	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.



Contracts	Underlying Asset	MM Portfolio Account- Exchange Fee Discount	MM Activities through Customer Accounts - Exchange Fee Discount	Required Presence Rate For Exchange Fee Discount	Exemption of Voluntary Order Cancellation Fee (For MM Accounts)		Trade Value Coefficient	Market Presence Ratio Coefficient	Connection Incentives*
Index Options	XU030D	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.
Les	XLBNK								
Index Futures	X10XB	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.
	XSD25								
Currency Futures	RUBTRY	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI
Cu Fi	CNHTRY								or OUCH.



Contract	ts	Underlying Asset	MM Portfolio Account- Exchange Fee Discount	MM Activities through Customer Accounts - Exchange Fee Discount	Required Presence Rate For Exchange Fee Discount	Exemption of Voluntary Order Cancellation Fee (For MM Accounts)		Trade Value Coefficient	Market Presence Ratio Coefficient	Connection Incentives*
Currency	Options	USDTRYK	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.
Precious Metals Futures		XAUTRY	100%	-	35%	Yes	15%	0.60	0.40	1 free Market Maker FixAPI or OUCH if market making activities are performed through MM portfolio accounts.
		XAUUSD								
		XAGUSD	100%	-	35%	Yes	25%	0.60	0.40	
		XPTUSD	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.
		XPDUSD	100%	100%	10%	Yes	50%	0.60	0.40	
Metal	Futures	XCUUSD	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.



Contracts	Underlying Asset	MM Portfolio Account- Exchange Fee Discount	MM Activities through Customer Accounts - Exchange Fee Discount	Required Presence Rate For Exchange Fee Discount	Exemption of Voluntary Order Cancellation Fee (For MM Accounts)	Revenue Share Ratios	Trade Value Coefficient	Market Presence Ratio Coefficient	Connection Incentives*
Base-Load Electricity Futures	ELCBAS	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.
Physically Delivered Government Bond Futures Contracts	Government Bond	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.

\* Number/throttling of market maker FixAPI or OUCH can be increased with General Management by taking order transmission volume and number of contract that is subject to market making.

#### **The Revenue Sharing Calculation Method:**

For example, for an instrument class/type/group where three market makers are active, let's assume that the market presence of market maker A is 80%, market maker B is 100% and market maker C is 20% and performance criterion for this instrument class is 70%. Assuming that the traded value that occurs as a result of the trades that market maker A realizes with non-market maker accounts is equal to TRY 100,000, that of market maker B is TRY 200,000 and that of market maker C is TRY 100,000. Therefore, the revenue sharing calculation will be as follows:

- X: The traded value that the market maker realizes with non-market maker accounts
- Y: The total traded value of the trades that all the market makers for the relevant instrument class/type/group realize with non-market maker accounts
- X/Y : Traded Value Ratio
- Z: Market presence of the market maker
- K: The total market presence of all the market makers for the relevant instrument class/type/group
- A: (Duration of continuous trading of Equity Market/ Duration of Normal Session of Derivatives Market)\*0.95

Formula: 0.60 \* (X / Y) + 0.40 \* (Z/ K)


Market Maker A: 0.60 \* (100,000 / 400,000) + 0.40\* (0.8 / 2.0) = 0.31 Market Maker B: 0.60 \* (200,000 / 400,000) + 0.40\* (1 / 2.0) = 0.50 Market Maker C: 0.60 \* (100,000 / 400,000) + 0.40\* (0.2 / 2.0) = 0.19

Assuming that 50% of the total exchange fee will be shared with the market makers. In this case, if the total exchange fee for the relevant instrument class/type/group is TRY 20,000, TRY 10,000 of this amount will be allocated to market makers. Revenue share will be TRY 3,100 for market maker A, TRY 5,000 for market maker B and TRY 1,900 for market maker C. Market maker C cannot deserve this amount as she cannot meet the daily performance criteria.

The rebate amount calculated for single stock futures is multiplied by (Z/A). If (Z/A) is greater than 1, this ratio is used as "1" in the formula.



### **APPENDIX-12: EVENING SESSION OBLIGATIONS OF MARKET MAKERS**

Contra cts	Contracts for which the Market	Spread Requireme						Market Presence **
	Maker is Responsible							
		Best Bid TRY		ime to Ex <60 Maximur 8.00	piry(Days) <90 n Spread 9.00	) ≥90 10.00	Minimum Order Quantity 10	For a calculation period, 70% of the total amount of time during which the market was open.
		<1,250	8.00	9.00	10.00	11.00	10	
		<1,500	9.00	10.00	11.00	12.00	10	
		<1,750	10.00	11.00	12.00	13.00	10	
		<2,000	11.00	12.00 13.00	13.00 14.00	14.00	10	
es		<2,500	12.00	13.00	14.00	15.00 16.00	10 10	
Itur	For contracts	<3,500	13.00	14.00	16.00	18.00	10	
K Fu	with two closest expiry	<4,000	15.00	16.00	18.00	20.00	10	
Index Futures	dates.	<4,500	16.00	18.00	20.00	24.00	10	
Ir		<5,000	18.00	20.00	24.00	28.00	10	
		<6,000	20.00	24.00	28.00	32.00	10	
		<7,000	24.00	28.00	32.00	36.00	10	
		<8,000	28.00	32.00	36.00	42.00	10	
		<9,000	32.00	36.00	40.00	48.00	10	
		<10,000	36.00	40.00	46.00	56.00	10	
		<12,500	44.00	50.00	56.00	66.00	10	
		<15,000	54.00	60.00	70.00	80.00	10	
		<17,500	64.00	70.00	86.00	96.00	10	



Contra cts	Contracts for which the Market Maker is Responsible	Spread Requiremen	ıts*					Market Presence **
		<20,000	74.00	80.00	100.00	116.00	10	
		≥20,000	84.00	90.00	110.00	130.00	10	
								For a calculation period, 70% of the total amount of time during
es				Time to Ex	niry(Dave)		Minimum	which the market was open.
fur		Underlying	<30	<60	<90	≥90	Order	
Fu		Asset			m Spread		Quantity	
lls	For contracts with two	XAUUSD	2.60	3.00	3.40	4.00	20	
leta	with two closest expiry	XAGUSD	0.100	0.120	0.140	0.160	200	
N S	dates.	XPTUSD	16	16	16	16	10	
ion	<b>unces</b>	XPDUSD	30	30	30	30	10	
Precious Metals Futures								



Contra cts	Contracts for which the Market Maker is Responsible	Spread Requirements <sup>*</sup>	<						Market Presence **
Metal Futures	For contracts with two closest expiry	Underlying Asset	T <30	<60	xpiry(Day <90 um Spread	≥90	Minimum Order Quantity		For a calculation period, 70% of
Meta	dates.	XCUUSD	200	200	200	200	10		the total amount of time during which the market was open.
* The mor	ultat maltana ana l	ishla ta fulfill the annod a		nt hr: an	toning hil	atoral (bu	u call) orders for	the	ontracts. The best hid price used in the

\* The market makers are liable to fulfill the spread requirement by entering bilateral (buy-sell) orders for the contracts. The best bid price used in the determination of spread obligations is the best bid price sent by the market maker member with its market maker account in the contract for which it is responsible. The best bid price used in the determination of spread obligations is the best bid price sent by the market maker member with its market maker account in the contract for which it is responsible. The best bid price used in the determination of spread obligations is the best bid price sent by the market maker member with its market maker account in the contract for which it is responsible. If there is only sell order (within the scope of obligations of market makers), the responsibility shall be deemed to be fulfilled in case the difference between sell order and the max spread corresponding to this sell order is smaller than the price tick of the contract.

\*\* Market presence is evaluated on the basis of the best bid and ask "day" "limit" orders sent by the market maker from the relevant market maker account.



### **APPENDIX-13: EVENING SESSION RIGHTS OF MARKET MAKERS**

Contr acts	Underlying Asset	MM Portfolio Account- Exchange Fee Discount	MM Activities through Customer Accounts - Exchange Fee Discount	Required Presence Rate For Exchange Fee Discount	Exemption of Voluntary Order Cancellation Fee (For MM Accounts)	Revenue Share Ratios	Trade Value Coefficient	Market Presence Ratio Coefficient	Connection Incentives*
Ires	XLBNK								1 free Market Maker
Index Futures	X10XB	100%	100%	10%	Yes	50%	0.60	0.40	FixAPI or OUCH.
Ind	XSD25								
lres	XAUUSD	100%	0%	35%	Yes	15%	0.60	0.40	1 free Market Maker
Precious Metal Futures	XAGUSD	100%	0%	35%	Yes	25%	0.60	0.40	FixAPI or OUCH if market making activities are performed through MM portfolio accounts.



	XPTUSD	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker
	XPDUSD	100%	100%	10%	Yes	50%	0.60	0.40	FixAPI or OUCH.
Metal Futures	XCUUSD	100%	100%	10%	Yes	50%	0.60	0.40	1 free Market Maker FixAPI or OUCH.

Instrument	Base Price	Limit	Limit Value	Limit Example
class	Duse I nee	Definition		
	0.01-0.99	Fixed	+3.00	Base Price: 0.50 Lower Limit: - Upper Limit: 3.50
Equity Option Contracts	1.00-14.99	Percentage (%)	+300%	Base Price: 2.50 Lower Limit: - Upper Limit: 10.00
	15.00 and upper	Fixed	+100.00	Base Price: 60.00 Lower Limit: - Upper Limit: 160.00
	0.01-14.99	Fixed	+20.00	Base Price: 5.00 Lower Limit: - Upper Limit: 25.00
Index Option Contracts	15.00-99.99	Percentage (%)	+200%	Base Price: 50.00 Lower Limit: - Upper Limit: 150.00
	100.00 and upper	Fixed	+300.00	Base Price: 150.00 Lower Limit: - Upper Limit: 450.00
	0.1-49.9	Fixed	+50.00	Base Price: 5.00 Lower Limit: - Upper Limit: 55.00
Currency Option Contracts	50.0-99.9	Percentage (%)	+400%	Base Price: 70.00 Lower Limit: - Upper Limit: 350.00
	100.0 and upper	Fixed	+500.00	Base Price: 150.00 Lower Limit: - Upper Limit: 650.00

## **APPENDIX-14: DAILY PRICE LIMITS IN OPTION CONTRACTS**

# APPENDIX-15: ALGORYTHMIC ORDER TRANSMISSION SYSTEMS INFORMATION FORM

## BORSA İSTANBUL A.Ş. ALGORITHMIC ORDER TRANSMISSION SYSTEMS INFORMATION FORM

New Algorithmic Order Transmission System Inform	nation
Current Algorithmic Order Transmission S Information Form	System
Date	
SUBJECT	EXPLANATION
Algorithmic order transmission system number:	
(A unique number/code should be given by member for all algorithms to be run)	
User or users to be allocated to the algorithmic order transmission system:	
Account or accounts to be allocated to the algorithmic order transmission system: *	
MKK Investor no:	
The date on which the algorithmic order transmission system was started or will start:	
Who owns the algorithmic order transmission system:	Member Investor
Location of servers to run the algorithmic order transmission system:	Member Campus  Co-location Center
Protocol to be used in order transmission of the algorithmic order transmission system:	FIX OUCH
In which platform and when (and the other details) the algorithmic order transmission system has been tested before the software put into effect:	
Evaluations on test results:	

Is BISTECH PTRM/Pre-Trade Risk Management System used?	Yes	No	
<ul> <li>If BISTECH PTRM is used, are the necessary limits defined for the risks?</li> <li>Instrument type/class level trade limits</li> <li>Instrument type/class level long order limits</li> <li>Instrument type/class level maximum order size limit</li> <li>Risk group level order/sec limit</li> <li>Risk group level tradable instrument limit</li> <li>Mass order cancel function</li> </ul>	Yes Yes Yes Yes Yes Yes	No No No No No	
Is any other application/mechanism used instead of PTRM? If yes, details of it: Other notes:			

The Member is responsible for the validity of the information provided in the above form. In case of any change, this form should be updated by giving information to Borsa İstanbul A.Ş.

It is advised to use all the features of BISTECH PTRM/Pre Trade Risk Management System for an efficient risk manegement system.

Signatures of Authorized Managers to Represent the Member, Title, Stamp



### APPENDIX-16: BORSA İSTANBUL A.Ş. ALGORITHMIC ORDER TRANSMISSOIN SYSTEMS COMMITMENT LETTER

..... / ..... / ......

#### TO BORSA İSTANBUL A.Ş. GENERAL MANAGEMENT

As a Market Member, using algorithmic order transmission systems, of Borsa İstanbul A.Ş. (hereinafter referred to as the Exchange) Equity Market and Derivatives Market (hereinafter referred to as the Market), we irrevocably and unconditionally accept the following points;

- 1) We will comply with all regulations and amendments made before and will be made, and Capital Markets Board (hereinafter referred to as the CMB) and the Exchange have all regulatory, auditing and supervisory authority related to the transactions to be carried out in the Market,
- 2) In case of default due to algorithmic transactions, the provisions in the related legislation shall be applied in respect of default,
- 3) We will do the following functional responsibilities (determined by Exchange Board of Directors related to order entrance, matching and revealing of order and trade data) in accordance with CMB and Exchange regulations,
  - To trade in accordance with financial resources,
  - To give orders in accordance with the regulations of the Exchange,
- 4) Algorithmic transactions shall be continuously monitored within the framework of the surveillance activities like other investor transactions, administrative and criminal sanctions may be applied in accordance with the CMB and the Exchange legislation in case of non-objective use,
- 5) In case of any dispute that may arise from the transactions carried out in the market, Exchange records will be valid and definite evidence in accordance with the relevant regulations,
- 6) Provisions of this Commitment will be applied in accordance with all regulations issued by CMB and Exchange,

Board of Directors of CMB and Exchange are authorized to interpret these provisions and conditions and to make decisions in non-open matters within the scope of general provisions, to regulate and direct the implementation,

- 7) We have a direct and untransferable responsibility to the Exchange for the algorithmic order transmission systems (used by us or our customers) and effects/consequences of these systems in the market,
- 8) We have made the necessary tests and controls related to softwares of algorithmic order transmission systems, we have the resposibility to watch the risks real-time and limit them and ,if necessary, to stop the activities of servers on which the software is working,
- 9) Before starting to send orders to the system through algorithmic order transmission systems, it is stated that these systems are tested in the test environment in terms of performance and function and as a result of these tests it is seen that orders sent to system will not prevent,

risk or mislead the functioning of Markets and the necessary control mechanisms are developed to ensure this environment,

- 10) If any problem occurs related to algorithmic order transmission system, we are obliged to report it to Exchange as fast as possible,
- 11) We will manage our risks by using BISTECH PTRM / Pre-Trade Risk Management System effectively if we establish order transmission systems belonging to our company or our customers in our own campus or Borsa İstanbul co-location center and generate orders through algorithms working on these systems,
- 12) We will give written notification to Exchange about all the algorithm software we use or will use, the location where the software will run, who owns it, which protocol to use in order transmission (FIX, OUCH), tested by whom at which dates, the evaluation of Market member about the test results and when it will be started to be used.
- 13) It is mandatory for the Market member to document in writing which methods and calculations are used for the risk limits to be set for each risk group within the scope of pre-trade risk management application and to notify the Exchange on the same day if requested.
- 14) In order to ensure that high-frequency trades are differentiated from normal customer orders and to follow up them, different users will be allocated for each different algorithmic order transmission system,
- 15) In case of market disruption situations arising from the trades of the algorithmic transmission systems and in particular high frequency trading users, the trades of related users may be suspended by the Exchange and the services provided may be partially or completely stopped. In case the services are stopped by the Exchange, we will not claim for profit deprivation, damage and other compensation.

Signatures of Authorized Managers to Represent the Market Member using Algorithmic Trades

# APPENDIX-17: EXPLANATIONS AND EXAMPLES REGARDING INTERMONTH STRATEGY ORDERS

Intermonth strategy orders are submitted to the System by strategy order codes which are explained below instead of contract codes. There is no functional difference between a strategy code and a contract code with regard to the System. Intermonth strategy orders take place on trading workstations or related FixAPI screens (For example: Price Information, Order Depth etc.) alike other contracts and can be submitted via protocols used in market access by choosing/entering the related code alike normal orders.

Code	Explanation
F	Intermonth Strategy Order Contract Group (Futures)
XU030	Underlying Asset Code
M2-M1	Contract months included in the strategy (M1:nearest contract month –
	M2: second nearest contract month)

Market segments for which the strategy orders are active, contracts and values for constant parameter (k) used in calculation of price limits are given below.

Market Segment	Underlying asset	Strategy Code	Price Limit Constant (k)
Index Futures-TRY	XU030D	F_XU030M2-M1	100.00
Currency Futures-TRY	USDTRY	F_USDTRYM2-M1	0.40
Precious Metals Futures-USD	XAUUSD	F_XAUUSDM2-M1	10.00

Far month contract buy – Near month contract sell strategy codes are fixed in the System and do not change when expiry months of contracts included in the strategy change. Besides, legs of the strategy are updated when related expiry months change and can be monitored via trading workstations or Fix API Reference Data.

Functioning of strategy orders present in the System is explained in the following example taking into consideration order entry, matching and trade execution phases:

Example:

Investor A wants to roll her long position of 250 in December 2018 USD/Ounce Gold Futures contract to the next contract month which is February 2019. In other words, she will buy February 2019 contract hence open a new position and sell December 2018 contract and close her current position. Price difference (far contract month-near contract month spread) projected by the investor for the intermonth roll transaction is maximum 5 USD per contract.

Contract Month	Base Price	Best Bid		Best Offer	
December-2018	1260	Price:	1271	Price:	1272
F_XAUUSD1218		Quantity:	150	Quantity:	115
February-2019	1270	Price:	1274	Price:	1275
F_XAUUSD0219		Quantity:	100	Quantity:	175

**Order Books of Related Contracts (at the beginning):** 

Based on her strategy, the investor will execute the trades involving the two contracts by submitting one single buy order for  $F_XAUUSDM2-M1$ . Existence of a passive strategy order in the same underlying can be checked via order book of the related strategy code alike with other traded contracts. In this example, no passive strategy order is assumed to exist.

#### Order Entry:

Dynamic price limits to be active during order entry is calculated as below:

Lower Limit: (1270-1260) - 5.50=4.50; Upper Limit: (1270-1260) + 5.50=15.50The System will accept strategy order entry with prices within 4.50 and 15.50 spread values and reject the strategy orders with prices outside this range.

#### <u>Matching — With open orders at contracts:</u>

When the investor sends the strategy buy order with spread price 5 and quantity 250, the spread will satisfy the price calculated based on the passive orders at December-18 and February-19 contracts  $(5.00 \ge 1275-1271)$  and quantity of 150 of the strategy order will be matched with open orders at far/near month contracts and the following trades will be executed.

**Trade-1:** At F\_XAUUSD1218 contract with price 1271 and quantity 150 (Investor A sells) **Trade -2:** At F\_XAUUSD0219 contract with price 1275 and quantity 150 (Investor A buys)

Trade-1 and Trade-2 will be reflected in price and quantity statistics of related contracts.

Order Book	Best Bid	Best Offer
F_XAUUSD1218	Price: 1268	Price: 1272
	Quantity: 70	Quantit 115 y:
F_XAUUSD0219	Price: 1274	Price: 1275
	Quantity: 100	Quantit 25 y:

Post-trade contract order book status of legs is given below:

100 of the quantity of strategy order can not be matched with open orders at the legs/contracts since the price condition is not met (5.00 < 1275 - 1268), and waits (passively) in the order book.

Order Book	Best Bid	Best Offer
F_XAUUSDM2-M1	Price: 5.00	Price:
	Quantity: 100	Quantity:

#### Matching- With a Counter Strategy Order

If a strategy sell order with active price and quantity of 100 is submitted by Investor B who wants to roll his short position of 100 in near contract month to the next contract month (selling February-2019 contract and buying December-2018 contract), automatic trades which will meet the spread price are generated by the system algorithm and price/quantity trade information is simultaneously notified to the parties.

**Trade-3:** At F\_XAUUSD1218 contract with price 1269.5 and quantity 100 (Investor A sells) **Trade-4:** At F\_XAUUSD0219 contract with price 1274.5 and quantity 100 (Investor A buys)

While determining automatic trade prices, primarily, best bid and offer prices waiting at the legs (a) are used as a reference. If any of the legs (b) lacks a buy and/or sell order, algorithmic calculations are based on orders of the other leg and some constant parameters details of which are given below.

If legs (c) lack both of the buy/sell orders, the system algorithm determines the prices by using base prices of far and near month contracts as a reference. More clearly, calculations regarding automatic trade prices are executed by a trial and error method which incorporates receding away from reference values (based on the situation of order books) until the spread which is subject to trade is matched. Automatic trade prices can not be determined outside the price limits of the related contracts.

In this context, automatic trade prices which are assigned by the System depending on the situation of the order book stays within the best bid and offer prices range and converges to the mid-price of these prices. Related calculations are given below:

Trade-3: (1268 + 1272)/2 - (Contract price tick x p) => 1269.5 = 1270 - (0.05 x 20)Trade-4: (1274 + 1275)/2 => 1274.5

Parameter  $\mathbf{p}$  represents the constant value to be used in the trial and error process. The algorithm randomly selects the mid-price value of the far or near contract month and recedes away with contract price ticks and parameter  $\mathbf{p}$  until the spread price is catched for the other leg. Parameter  $\mathbf{p}$  ise set as 20 in the System.

In this context, calculations which enable strategy orders to match with legs or with themselves are executed according to the rules given below.

- When a buy or sell strategy order is submitted, the System first tries to execute the matching with open orders at far and near contract months composing the strategy which are called the legs. If spread price or quantity can not be met/satisfied at the related contracts, the System enters the phase of matching with counter strategy orders.
- The System allows strategy orders to match with each other only within a determined spread range to prevent trade prices to be calculated by the algorithm from diverging away from existent market prices. This spread is called the derived spread. Derived spread calculation basically depends on the open orders with best bid and offer prices. For instance, for a contract which has the below order book;

	Buy	Sell
Near Month Contract	8 (a)	10 (b)
Far Contract Month	12 (c)	15 (d)

Derived Spread is calculated as (c-b) buy and (d-a) sell; and strategy contracts/orders can not be matched with each other at prices outside [2;7].

• If any of the legs lacks best bid and offer prices, the System uses the folowing rules and determines the missing buy, sell or both buy and sell prices for the legs and and calculates the derived spread out out of these prices. If any of the legs misses:

**a-i)** Buy or sell price (far month contract BBO exists)=> In this case, a sell price is generated by using the spread obtained from other legs's BBOs and derived spread is calculated out of this value.

	Buy	Sell
Near Month Contract	8 (a)	11 (e)
Far Month Contract	12 (c)	15 (d)

e = 8 + (15-12) = 11. Derived spread which allows strategy orders to match with each other is [1; 7]. (the same logic applies if the buy order is missing, that is, waiting sell order's price- other leg's spread).

a-ii) **BBO in the far contract month which is taken as a reference:** This time the System uses 20 minimum price tick divergence parameter (p) (if 20 minimum price tick causes the leg to go out of the price limits, then the closest value to 20 within the price limit) and makes the calculations out of this value. For example, for the order books given below; (minimum price tick=0.5, upper price limit for the near month contract= 21 and for the far month contract= 24).

	Buy	Sell
Near Month Contract	8 (a)	18 (f)
Far Month Contract	15 (c)	24 (g)

f = 8 + (20\*0.5)=18 ve g = 15 + (20\*0.5)=25, g being out of the price limit, parameter value is set as 18 and g=15+(18\*0.5)=24. Derived spread is calculated as [15-18; 24-8].

b) Both Buy and the Sell=> System checks the BBO missing leg for the related day and takes the last trade price (if there is any trade) or the base price (if there is no trade) as mid-price and calculates the buy and sell prices within the price limits by dividing 20 minimum price tick divergence parameter (p) by 2.

	Buy	Sell
Near Month Contract		
Far Month Contract	15	

Assume the last price of the near month contract is 16 and price limits are 8 and 24.

	Buy	Sell
Near Month Contract	16-(20/2*0.5)=11	16+(20/2*0.5)=21
Far Month Contract	15	15+(20*0.5)=16

In this example, the algorithm makes the calculations for the far month by using the rules in (a-ii) and for the near month by using the last trade price 16 and computes the derived spread as (15-21) (16-11) = [-6;5].

## **APPENDIX-18: SINGLE PRICE METHOD EXAMPLES**

The equilibrium price calculation algorithm in the opening session works as follows:

- 1- Among the price levels of the orders submitted to the system, the price at which the most orders will execute is determined as the equilibrium price.
- 2- If there is more than one price level that ensures the execution of the highest trade quantity, the price level with the minimum remaining quantity of the orders that can match at these price levels is determined as the equilibrium price.
- 3- In case there is more than one price that meets these two conditions, from the orders pending at price levels that can match the prices that meet the condition; if the total quantity of the buy orders is more than the total quantity of the sell orders, the higher price is determined as equilibrium price. If the total quantity of the sell orders is more than the total quantity of the buy orders the lowest price is determined as equilibrium price. If the total quantity of the sell orders, the sell orders, the number of the total quantity of the buy orders the lowest price is determined as equilibrium price. If the total quantity of the sell orders, the sell orders, that the arithmetic average of the prices is determined as the equilibrium price.

In the examples below, when calculating the equilibrium price, the numbers in the "Buy Side Total Quantity" and "Sell Side Total Quantity" columns indicate the total order quantities at each price level from the best price to the worst price. In other words, highest to lowest prices for buy side and lowest to highest prices for sell side are considered. The function of these columns is to calculate how many trades can be executed at any price level chosen as the equilibrium price.

Buy	Side		Sell Side		Trade	Remain	ning
Total Quantity	Order Quantity	Price	Order Quantity	Total Quantity	Quantity	Quantity	Side
10	10	8,70	10	150	10	140	Sell
10		8,60	10	140	10	130	Sell
10		8,50	10	130	10	120	Sell
40	30	8,40	40	120	40	80	Sell
55	15	8,30	5	80	55	25	Sell
60	5	8,20	35	75	60	15	Sell
80	20	8,10	30	40	40	40	Buy
105	25	8,00		10	10	95	Buy
155	50	7,90	10	10	10	145	Buy

Example 1: Highest Trade Quantity Can Be Executed at a Single Price Level

Since there is only one price level where highest trade quantity can be executed, the matching occurs at the quantity of 60 and the equilibrium price level of 8.20.

Buy	Buy Side		Sell Side		Trade	Remain	ing
Total Quantity	Order Quantity	Price	Order Quantity	Total Quantity	Quantity	Quantity	Side
10	10	8,70	10	150	10	140	Sell
10		8,60	10	140	10	130	Sell

10		8,50	10	130	10	120	Sell
40	30	8,40	40	120	40	80	Sell
55	15	8,30	15	80	55	25	Sell
60	5	8,20	5	65	60	5	Sell
80	20	8,10	50	60	60	20	Buy
105	25	8,00		10	10	95	Buy
155	50	7,90	10	10	10	145	Buy

Since there are two price levels that meet the highest trade quantity criteria, the price level with the minimum remaining quantity is determined as the equilibrium price. Since the remaining quantity at the 8.20 price level is less than the 8.20 and 8.10 price levels, where the highest trade quantity can be executed, the equilibrium price is determined as 8.20 and trades with 60 quantities are executed.

Example 3: Highest Trade Quantity and Minimum Remaining Amount Criteria an Be Met at Multiple Price Levels

A)

Buy	Side		Sell	Side		Remain	ing
Total Quantity	Order Quantity	Price	Order Quantity	Total Quantity	Trade Quantity	Quantity	Side
10	10	8,50	20	240	10	230	Sell
10		8,40	80	220	10	210	Sell
80	70	8,30		140	80	60	Sell
80		8,20	100	140	80	60	Sell
125	45	8,10	40	40	40	85	Buy
135	10	8,00					

In case there are two price levels that meet the conditions of the maximum trade quantity and the minimum remaining quantity, while determining the equilibrium price; If the total quantity of buy orders from pending orders at price levels that can match the prices that meet the condition is more than the total quantity of sell orders, the higher price is determined as equilibrium price, and if the total quantity of sell orders is more than the total quantity of buy orders is more than the total quantity of sell orders is more than the total quantity of sell orders is more than the total quantity of sell orders is more than the total quantity of buy orders, the lowest price is determined as equilibrium price. In the example, since the sum of sell orders is higher in the market, the lower price of 8.20 is determined as the equilibrium price and trades with a quantity of 60 are executed.

B)

Buy	Side	Price	Sell	Side	Trade	Remain	ing
Total	Order	Frice	Order	Total	Quantity	Quantity	Side
Quantity	Quantity		Quantity	Quantity	Quantity	Quantity	Slue
20	20	8,40	50	150	20	130	Sell
50	30	8,30	50	100	50	50	Sell
100	50	8,20	30	50	50	50	Buy
150	50	8,10	20	20	20	130	Buy

In case there are two price levels that meet the conditions of the highest trade quantity and the minimum remaining quantity, if the total quantity of the buy orders is equal to the total amount of the sell orders, the arithmetic average of the prices is determined as the equilibrium price. In the example, since the total buy and sell quantities are equal, the arithmetic average of the two prices is taken and the price of 8.25 is determined as the equilibrium price, and trades with 50 quantity is executed.

## APPENDIX-19: BORSA İSTANBUL A.Ş. DERIVATIVES MARKET PROCEDURE REVISION COMPARISON TABLE

"Borsa İstanbul A.Ş. Derivatives Market Procedure Revision Comparison Table Document" which is on Borsa İstanbul web site, contains Revision Comparison Table.