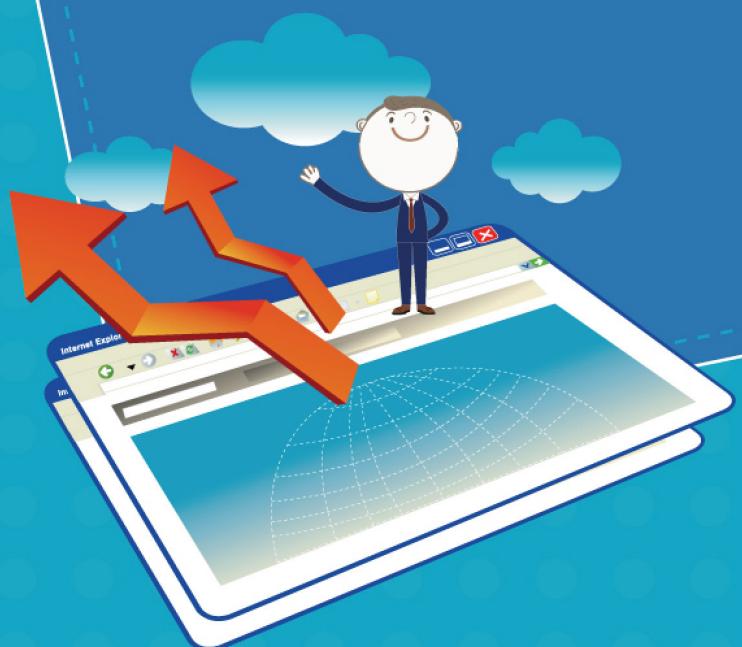


Introduction to Trading at KRX Stock Market

2011





Preface

Korea Exchange (KRX) is the main (and sole) operator of securities markets and derivatives market in Korea under the newly enacted “Financial Investment Services and Capital Markets Act (FSCMA).” With its responsibility to uphold market integrity, KRX endeavors to provide the most efficient, fair and reliable market-places for all participants ranging from domestic individuals to international institutions.

KRX is not hesitant to the change and progress toward better market developments and therefore continues to move forward by introducing advanced market system and infrastructures. Although such on-going efforts would benefit our customers and the industry, we also understand that frequent changes in rules & regulations may bring unintended complexity in our market environment. Therefore, it is also important for us to provide the most up-to-date information materials to our customers.

This publication specifically focuses on rules and regulations relevant to trading of listed stocks (equities & KDRs) in KRX Markets. And this English version of the publication is prepared to support our global customers who now accounts for nearly 33% of total market capitalization. We would like to acknowledge that information in this booklet may not be complete and comprehensive enough to cover all areas of market participants’ interests. However, we do believe that this material is helpful in providing general information on trading environment of KRX Stock Markets.

We hope you find this booklet useful.

July, 2011

Korea Exchange

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Introduction to Trading at KRX Stock Markets



I . General Overview

1. Introduction to KRX Stock Markets
2. Regulations related to Trading and Order Entrustment
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1. Introduction to KRX Stock Markets



A Market Overview

Korea's Stock Market has experienced exponential growth since the launch of first Exchange Market, Daehan Stock Exchange, back in 1956. Having started with only 12 listed companies, the market now offers nearly 1,800 equity products with total market capitalization of 1.1 trillion KRW by the end of year 2010. According to the World Federation of Exchanges (WFE), Korea's Stock Market¹⁾ is ranked at 17th in terms of market capitalization and 9th in terms of turnover value among member exchanges.

In addition, since the opening up of the market to foreign (non-resident) investors in 1992, foreigners have shown continuous interest in investing Korean stocks. They now account for nearly 33% of market capitalization in the KOSPI Market.



B Statutory Structure

Having consolidated 4 different market operating organizations back in 2005, Korea Exchange (hereinafter "KRX") is now the main operator of Korea's Securities Markets²⁾ and Derivatives Market under the 「Financial Investment Services and Capital Markets Act」 (hereinafter "the FSCMA"). The FSCMA is governed by Financial Services Commission (hereinafter "FSC") and its regulatory enforcement is administered by Financial Supervisory Services (hereinafter "FSS").

1) Both KOSPI Market & KOSDAQ Market combined.

2) The FSCMA defines 'Securities Markets' as market-places provided by KRX to trade listed securities including debt-securities, equity-securities, beneficiary certificates, investment contract securities, derivatives-combined securities, and securities depository receipts. This booklet focuses on Stock Markets which include equity-securities & depository receipts. Please note that trading mechanism covered in this booklet may not always be applied to debt-securities, derivatives-combined securities, and beneficiary certificates.



Newly enacted FSCMA

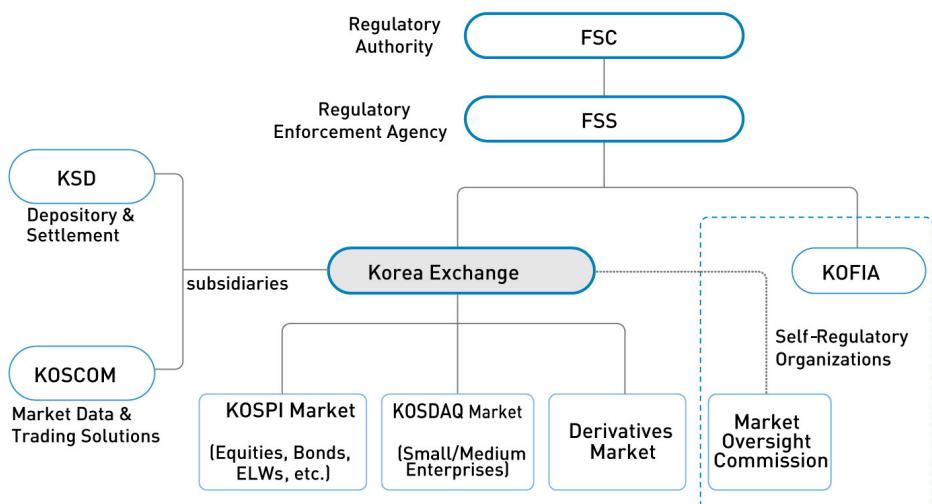
The Financial Services and Capital Markets ACT (FSCMA) was legislated in August 2007 and went into effect on February 4, 2009. Main purpose of the ACT is to support so called "Big Bang" in Korea's capital market industry and to strengthen the industry's competitive edge in the global market.

The FSCMA consolidated 6 different ACTs* and partially adopted 9 existing ACTs which were relevant to the capital market and financial industry in Korea (excluding Banking ACT and Insurance Business ACT).

* includes Securities Exchange Act, Futures Trading Act, Indirect Investment Act, Merchant Banks Act, Trust Business Act, Korea Securities & Futures Exchange Act.

Within this legal framework, KRX operates 2 Securities Markets; KOSPI market as a main board and KOSDAQ market as a venue to small and medium sized enterprises. KRX provides trading and clearing functions for these 2 markets through its proprietary (in-house developed) system called 'EXTURE.' Korea Securities Computer Corporation (hereinafter "KOSCOM") is a primary information vendor and offers securities market IT solutions. Korea Securities Depository (hereinafter "KSD") functions as central depository of listed shares.

Structure of Korean Capital Market



FSC: Financial Services Commission

KOFIA : Korea Financial Investment Association

FSS: Financial Supervisory Service

C Types of Securities Listed

At KRX Securities Markets, following products are listed and are available for trading.

- i. Stocks (which includes corporate equity shares, Korea Depository Receipts (hereinafter "KDRs"), and shares of Mutual Fund/REITs/Ship Investment Fund);
- ii. Exchange Traded Funds (hereinafter "ETFs");
- iii. Certificate of Subscription Rights³⁾;
- iv. Subscription Warrants⁴⁾;
- v. Equity Linked Warrants (hereinafter "ELWs") ;
- vi. Beneficiary Certificates; and
- vii. Debt Securities including Government Bonds and Corporate Bonds.

2. Regulations related to Trading and Order Entrustment

A Relevant Rules & Regulations

In Securities Markets, where a variety of investment products change hands everyday, it is necessary to have a standardized system to ensure orderly and fair transactions for all market participants. Accordingly, in Korea, article 393 of FSCMA states that the rules and regulations pertaining to trading in Securities Markets shall be established by the 「Business Regulations」 of KRX.

The FSCMA (§412) also states that establishment or amendment of KRX Business Regulations shall be subject to approval of FSC. Currently, as an official market operator in Korea, KRX has established 「KOSPI Market Business Regulation」 and 「KOSDAQ Market Business Regulation」 for respective markets. And, each Business Regulations have Enforcement Rules to stipulate specific parameters and conditions.

The FSCMA also delegates specific enforcement regulations to FSC which has

3) Rights to subscribe for new shares in the event of company's additional capital increase.

4) Warrant for issuance of new shares, which is separated from Bond with Warrants (BWs).



established 「Regulation on Financial Investment Business」, and 「Regulation on Securities Issuance and Disclosure」 for such matters.

B KRX Business Regulations

KRX Business Regulations stipulate rules & regulations on 4 major areas; 1) order entrustment, 2) trade execution, 3) market operation, and 4) clearing & settlement.

- i. **Order Entrustment rules** cover methods and procedures that securities companies⁵⁾ (with KRX Membership) have to comply with when conducting customer brokerage businesses. Such methods and procedures include opening of accounts, receiving orders, requirements on margining (collecting good faith deposits), brokerage commissions, and etc.
- ii. **Trade Execution rules** cover methods and procedures of trading in the market. Such matters include trading hours, trading days, execution methods, and etc.
- iii. **Market Operation rules** cover matters related to efficiency and reliability of daily market operation. Such matters include trading halts, short-selling regulations, price adjustment on ex-dividend date and etc.
- iv. **Clearing and Settlement rules** cover methods and procedures of post trading process. Covered areas include, but not limited to, handling of settlement failures, payment of settlement cash, and delivery of securities.

3. Basic Trading Procedures

A Opening Accounts and Placing Orders

In order to trade at KRX Stock Markets, every investor has to first open a trading account through licensed securities company that has obtained KRX Membership⁶⁾

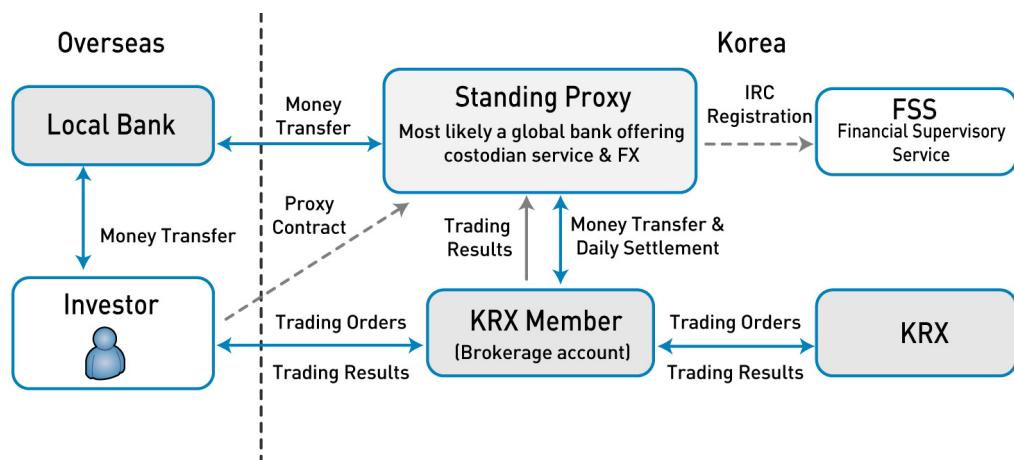
5) Registered companies with the license for Investment Brokerage Business or Investment Trading Business, authorized by FSC, shall have corporate title of either Securities Companies or Financial Investment Businesses according to the FSCMA. Before the FSCMA, or under (now repealed) Securities Exchange ACT, these licensed companies titled themselves as Securities Companies and most of them still maintain the title as of today.

6) Licensed Securities Companies (or Financial Investment Business Entities) has to receive Membership

(hereinafter "Members"). Investors can only place (or submit) their trading orders through the Members which act as agents in the market. Immediately after receiving customer orders, Members will submit corresponding Quotations⁷⁾ to KRX market system through electronic network.

Foreigners (non residents) need to obtain registered 「Investors Registration Certificate (IRC)」 from FSS before opening a trading account. Foreigners need to appoint a Standing Proxy who would conduct these processes on their behalf. Foreigners also need to designate a local custodian bank which would provide custody, money transfer, and security settlement services.

■ Foreigners Participating in KRX Markets



B Trade Executions and Notifications

KRX Trading System matches Quotations according to the basic price and time priority principles, and then immediately notifies the results of trade executions to concerned Members. Members, in turn, notify their customers of the trading results.

from KRX to directly participate in any KRX Markets. The companies with no KRX Membership have to entrust their customer (or proprietary) orders to KRX Members for transactions in the market. Membership requirements are stipulated under 「KRX Membership Regulation」.

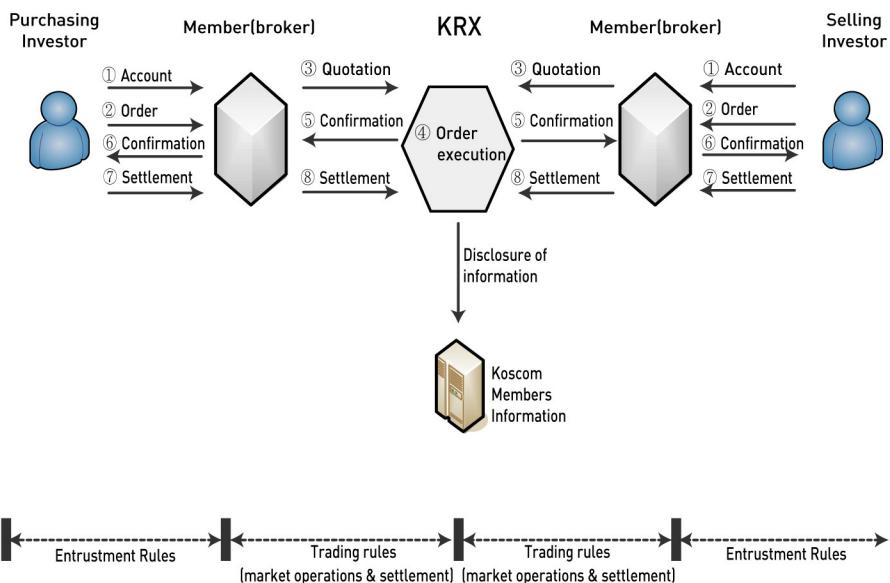
7) KRX Business Regulations simply define "Orders" as customers' expression of intentions to buy (bid) or sell (ask) certain securities and "Quotations" as the Members' expression of intentions to carry out the trade (either proprietary or customer's) under its name.

C Settlement

Customers must make the payment for purchased securities or deliver the securities sold to relevant Members on T+2. Customer's settlement deadline on T+2 may vary upon Members.

For the final settlement process, Members⁸⁾ will make payments for purchased amount and deliver securities sold to KRX which, in turn, makes the payment and delivery to its counter parties (Recipient Members).

Basic Trading Flow at KRX Stock Markets



4. Electronic Trading Systems

A Member Systems

Member Systems (systems developed and operated by Members) perform necessary functions relating to customer businesses which include account administration, order

8) In this case, "Clearing Members." Almost all KRX Members have membership to both Trading and Clearing.

routing, management of securities inventory, notification of transactions, and etc.

Members began developing their own in-house systems since November 1996. However, some Members continue to outsource the system and its operation from KOSCOM which offers such solution (PowerBase System).

B KRX Systems

KRX Trading System (EXTURE) performs full range of functions required for securities transactions which include receiving quotations, trade executions, notification of trade results, calculation of daily settlement data, and etc. On 23 March 2009, KRX has launched new trading system (EXTURE) which consolidated previously separated market platforms (for KOSPI market, KOSDAQ market, and Derivatives market) into one single platform and upgraded the system capacity by adopting cutting-edge technologies.

Market Information System generates and disseminates various market data including prices, quotations, and market indices to be used as investment references. This information is distributed to the public through primary vendor (KOSCOM) and Members.

There are many other electronic systems to perform everyday market operations; including **KIND** (managed by KRX) to provide corporate disclosure information, **Foreign Investor Management System** (managed by FSS) to assist regulation on foreigners' shareholding limitations for certain stocks, **Market Surveillance System** (managed by KRX) to monitor any illegal and irregular trading activities, and **Depository and Settlement System** (managed by KSD).

Introduction to Trading at KRX Stock Markets



II . Entrustment of Trading Orders

- 1. Trading Accounts
 - 2. Entrustment of Orders
 - 3. Margin Deposits
 - 4. Members' Brokerage Commission
- 



1. Trading Accounts

(1) Background

To receive and process any trading orders entrusted by a customer, the Member has to first open his/her trading account. (§77 KOSPI / §33 KOSDAQ)*.

* Hereinafter, "§#KOSPI" refers to "article # of KOSPI Market Business Regulation", and "§# KOSDAQ" refers to "article # of KOSDAQ Market Business Regulation."

Opening of trading account implies that both the Member and its customer have agreed upon certain service conditions and that customer's trading orders will be entrusted and processed in accordance with the conditions stipulated in the agreement.

Such service conditions are written in contractual form to prevent possible disputes that may arise between the Member and its customers. It also provides investors an opportunity to be aware of specific conditions before entrusting their trading orders.

(2) Account Opening Procedures

A Principle of Suitability (§46 of the FSCMA)

Before opening an account or making any investment recommendations for a customer, securities companies are required to obtain information about the customer's status related to financial investment activities and decide on which investment products are appropriate for that particular customer.

B Restrictions on Investment Recommendations under the FSCMA

Before the FSCMA, investor protection policy was based on principle of "Your Own Responsibility" under the abolished Securities Exchange Act. However, because the modern capital markets have become highly complicated due to financial globalization, asset securitization, and development of financial engineering, it is difficult for every investors to fully understand the products and make appropriate investment decisions. Thus, the FSCMA has adopted 'Principal of Know-Your-Customer' to reinforce Broker's responsibility on investor protection.



In specific, Securities Companies need to classify each customer as either "Professional Investor" or "Ordinary Investor"⁹⁾ based on the customer's financial status and level of knowledge on financial investment products.

In case of Ordinary Investors, before opening an account, Securities Companies are required to conduct a survey or an interview to obtain the customer's information such as investment purpose, financial status, and investment experiences. After having the customer to confirm the information by signing the written statement (or by having any other method of authentic approval), such Securities Companies have to keep and maintain the confirmed information in document form, voice recording, or any other electronic methods.

When providing investment recommendations to Ordinary Investors, Securities Companies must recommend the products that are appropriate for that particular customer.

B

Agreement on Trading Accounts (§77 KOSPI / §33 KOSDAQ)

To open a trading account, the Member must enter into an 「Agreement on Trading Account」 with the customer. Among others, the Agreement must stipulate following matters;

- i. This customer account is being set up to trade at Securities Markets established by KRX; and
- ii. The customer consents to 「Agreement on Customer Trading Services」 prepared by the Member.

In addition, when opening an account, Members are required to keep and maintain necessary customer information such as the name, address, and resident identification number. This information shall be confirmed (with an authentic signature) by the customer at the time of account opening.

C

Agreement on Customer Trading Services (§78 KOSPI / §34 KOSDAQ)

The 「Agreement on Customer Trading Services」 is a standardized agreement that has to be signed by the customer when opening a trading account.

9) Defined under article 46 of the FSCMA

KRX Business Regulations require such Agreements to state following matters among others;

- i. Obligation to comply with relevant laws, enforcement decrees, KRX business regulations, and etc.;
- ii. Priority conditions for customer orders which have been placed before opening of KRX quotation receiving hours¹⁰⁾;
- iii. Conditions on Member's right to reject customer orders and Member's right to collect good faith deposits (also known as "margin") and brokerage commission;
- iv. Restrictions on Member's arbitrary trading of customer's account; and
- v. Necessary actions to be taken in case of settlement failures.

Nonetheless, Members may add any other service conditions provided that such conditions are not in breach of relevant laws and regulations.

Additionally, Members are required to explain important conditions of the Agreement to customers at the time of account opening. Also when establishing new service Agreement or when amending existing provisions, such Member shall notify the details to KRX within 5 days after its effective date.

2. Entrustment of Orders (§109 ER KOSPI / §41 ER KOSDAQ)*

* *Hereinafter, "ER" refers to Enforcement Rules of respective Business Regulations.*

(1) Method of Receiving Orders

According to KRX Business Regulations, Members have 3 different methods of receiving and handling customer orders. And regardless of such methods, Members' are required to route customer orders to KRX system (which will be recognized as official quotation by KRX) immediately upon receiving of such orders.

A Orders in Written Document Form

Members may receive customer orders through an order slip (written document form)

¹⁰⁾ See III-1-(1) for description on 'Trading Hours'



which the customer shall write-in the details (security name, bid/offer, price, order type, quantity, etc.) and confirm with an authentic signature (or seal, hereinafter the same). This is a face-to-face communication between the broker (Member's staff) and the customer which is usually conducted directly at Member's local branch. Member's staff who has received such order-slip from the customer shall enter in corresponding quotation through the Member's dedicated terminal.

B Orders through Telephone, Fax, etc.

Members may receive customer orders through telephone, fax, and any other similar device. In this case the Member (staff who has received such call) must confirm that the person entrusting the order is the customer himself/herself. Also the Member has to keep and maintain the customer's order instructions (by voice recording, FAX copies, etc.) as a proof of order entrustment.

In addition, the staff who has received such order has to write up a separate order-slip based on customer's instruction and sign the slip thereon before placing corresponding quotation through dedicated terminal. Member has to print out the copies of those order-slips for record keeping purposes. Instead of writing-up of an order slip, the staff may enter in order details through electronic system with an authentic (electronic) signature thereon. In this case, the Member (or staff) may keep and maintain the record in electronic form and may not print the copies of order-slips.

C Orders through Electronic Network

When Member is to receive customer orders through electronic network such as Home Trading System (HTS), Mobile Trading System (MTS), and Internet Websites, the Member and the customer must first enter into an 「Agreement on Order Entrustment through Electronic Network」 .

These on-line trading programs offered by Members shall be reasonably designed to accommodate safe financial transactions. The system shall be capable of, but not limited to, performing functions such as verification of customer's identity and monitoring of trading records by the customer himself or herself.

■ Introduction of Home Trading System (Apr. 1st 1997)

After having introduced the fully automated electronic trading system in 1997, KRX also adopted members' electronic brokerage method to provide end-investors with complete on-line trading environment. It enabled investors and Members to enjoy enhanced efficiency and cost reduction in the market by conducting entire trading process (placing orders, members' quotation submission, matching at KRX, notification of trade results, and etc.) in automated format. To use this mechanism, investors need to simply download Members' Home Trading System (HTS) on to their home PCs or any other electronic devices. HTS is widely used by retail investors in Korea.

(2) Rejecting Orders (§84 KOSPI / §40 KOSDAQ)

Members have fiduciary responsibility to maintain fair and orderly trading environment and also to protect bona fide investors. Thus, Members are required to reject any customer orders that may undermine such responsibility. Specifically, Members must, but not limited to, reject;

- i. orders that are in breach of (or has the potential to be in breach of) the FSCMA provisions such as Return of Insider's Short Swing Profits (§172), Restriction on Use of Material Non-public Information (§174), Restriction on Market Price Manipulation (§176), and Restriction on Unfair Trading (§178);
- ii. orders that are in breach of short-selling regulations (including up-tick rule); and
- iii. any other orders that Member deems rejection is necessary to protect public interest & investors or to maintain fair & orderly market.

In case of a customer who has failed to meet the settlement balance, the Member may reject any new orders and restrict withdrawal of cash or securities from such customer's account. These conditions shall be stipulated in relevant customer agreements.



3. Margin Deposits ([§87 KOSPI/ §42 KOSDAQ](#))

Margin¹¹⁾ (also referred to as good faith deposits) is cash or securities that Member's collect from customers for risk management purposes. Members confirm the availability of cash or security in customer's account before receiving any new bid or ask orders.

(1) Member's Margining Policy

In the past, the Exchange determined the minimum rate of margin that Members had to collect from their customers. However, since the amendment of regulations on April 1st 1998, Exchange has allowed Members to determine their own margining policies. This self-regulatory approach has enabled Members to apply flexible risk management system.

Most Members today require retail customers to deposit 30%~40% of securities value for bid orders and entire securities sold for ask orders. Some Members choose to exempt margin requirements for institutional customers with high credibility.

Member's Margin Policy Before and After the Regulatory Change (Apr. 1998)

	<i>Before</i>	<i>After</i>
Margin Rate	Collect 40% of purchasing value at minimum	Member's discretionary
Substitute Securities	Shall be limited to less than 20% of purchasing value	"
Exempt Institutions	Institutions designated by KRX	"
Administrative Issues ¹²⁾	Collect 100% of purchasing value	"

¹¹⁾ Margin Trading is pre-deposit practice under the T+2 settlement cycle, thus, it is different from 'Credit line Trading' which refers to additional funding provided by the broker (Member).

¹²⁾ See III-3-(4) for description on 'Administrative Issue'

(2) Substitute Securities ([§88 KOSPI / §43 KOSDAQ](#))

Customers may use their own securities inventory (in substitute to cash) to fulfill broker's margin requirements. So called Substitute Securities, designated by KRX, can also be used as guarantee payments for public utility charges and collateral for various credit transactions. ([§171 of the FSCMA](#) · [§4-25 of Regulations on Financial Investment Business](#))

KRX designates following type of securities as Substitute Securities; Stocks (including KDRs), ETFs, Debt Securities, Beneficiary Certificates (described in article 189 of the FSCMA), and non-listed Mutual Funds (excluding privately placed funds).

However, following securities shall not be used as Substitute Securities; Administrative Issues¹³⁾, issues under Investment-Risk warning¹⁴⁾, issues under Liquidation Trading¹⁵⁾, and issues of which trading has been suspended due to delisting process (whether it be requested by the company or is under delisting review by KRX).

KRX calculates value of Substitute Securities by multiplying the haircut ratio (a.k.a Appraisal Ratio) to the referential price of concerned securities. Members may apply different value of Substitute Securities within (less than) the value calculated by KRX. ([§115~119 ER KOSPI / §47 ER KOSDAQ](#))

Parameters for Calculating the Value of Substitute Securities

Securities	Referential Price	Haircut Ratio	Calculation Cycle
Equities, KDRs	Base-Price ¹⁶⁾	<ul style="list-style-type: none"> • Among constituents of KOSPI200 Index, top 100 securities based on avg. daily turnover value*: 80% • Among constituents of KOSDAQ Premier Index, top 20% of securities based on avg. daily turnover value*: 80% • Securities which avg. daily turnover value* falls below 5 percentile level in listed market: 60% • Any other Equities or DRs which don't fall into any one of above 3 categories : 70% 	Daily
ETF	Base-Price	<ul style="list-style-type: none"> • ETFs which consists of treasury bond, municipal 	Daily

13) See III-3-(4) for description on 'Administrative Issues'

14) See III-3-(5) for description on 'Investment-Risk warning'

15) See III-3-(4) for description on 'Liquidation Issues'

16) See III-1-(8) for description on 'Base-Price'

17) According to §238 of FSCMA, Mutual Funds are required to publish their Net Asset Value(NAV)



Securities	Referential Price	Haircut Ratio	Calculation Cycle
		bond, special bond, financial bond, or CD: 95% • ETFs which consists of corporate bond or CP : 85% • ETFs which consists of equity linked bonds (i.e. CBs, BWs) or equity linked securities (ELS): 80% • ETFs which tracks either KOSPI200 index, KOSPI50 index, or KRX100 index: 80% • Any other ETFs which don't fall into any one of above 4 categories: 70%	
Debt Securities	Avg. closing price of previous 5 trading days	• Government & Municipal Bonds: 95% • Corporate Bonds: 85% • Equity Related Bonds: 80%	Weekly
Non-listed Mutual Funds	Avg. NAV ¹⁷⁾ of previous 7 days	• Non-Bond Funds: 70% • Bond-oriented Funds: 80%	
Listed Mutual Funds	VWAP of previous 20 trading days		Monthly

* KRX will calculate avg. daily turnover value (of last 1 year) at the end of every quarter. Thus, haircut ratio for Equities and DRs will change on a quarterly basis.

Case : Member's Margin Collection

Let's assume that Member A has established its own Margining Policy as following;

- Retail customers are required to deposit 40% of nominal value when placing a buy order;
- And the customer may deposit 20% of nominal value with Substitute Securities.

Retail investor B, who is a client of Member A, is currently holding 10 shares of ABC Electronics and 400,000_{KRW} cash balance in his account. KRX has published substitute value of ABC Electronics as 50,000_{KRW} per share (meaning B can use 500,000_{KRW} worth of substitute securities).

Customer B decided to buy shares of XYZ Motors at the value of 1,000,000_{KRW}. Member B when receiving this order will collect 400,000_{KRW}(1,000,000_{KRW} × 40%) from Customer B's account. In this case, Customer B will deposit 200,000_{KRW} in cash and another 200,000_{KRW} in substitute securities.

on a daily basis.

(3) Special Margin Collection Rule ([§89 KOSPI / §42 KOSDAQ](#))

A Background

Although regulation on Margining Policy was waived to facilitate flexibility in Members' risk management, there are several exceptions for market management purposes. In specific, Members are obliged to collect 100% margin from customers (meaning no margin-trading) when receiving following orders;

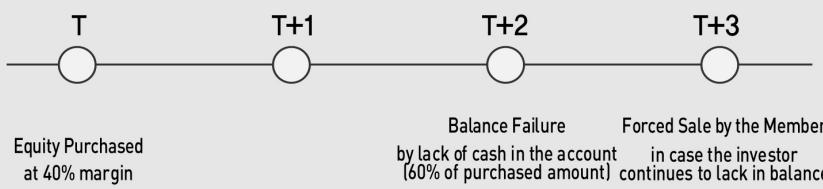
- i. Ask (sell) order on securities with less than 50,000 shares outstanding;
- ii. Bid (buy) order on securities with Investment-Alert or Investment-Warning¹⁸⁾ (issued by Market Oversight Commission) in effect; and
- iii. Any orders from a customer who has failed to meet the settlement balance by the settlement deadline (details explained below).

Item iii above is also referred to as 'No Margin-Trading Action.' Previously, this special margin collection rule was applied only to those who have breached the short-selling regulations and those who have failed to deliver sold securities by the settlement deadline. However, in 2006 and 2007, high expectations on strong market performance led to rapid increase in customers' Balance Failures*. Thus, on May 1st 2007, KRX has expanded this special rule to minimize the potential market instability caused by over-speculative trading activities.

I Understanding the 'Balance Failures'

In KRX Stock Markets, Members have to complete the settlement with KRX on T+2 (2 days after the transaction date). This timeline is also effective for settlement between Members and their customers.

Balance Failure occurs when a customer fails to pay the purchased amount or deliver the sold securities to the Member on a settlement date. In such cases, the Member would complete the settlement with KRX on behalf of the customer to prevent settlement failure. If the customer continues to lack in balance on T+3, the Member may sell the purchased securities at its own discretion for indemnification purpose.



¹⁸⁾ See III-3-(5) for description on 'Investment Warning System'



B Rule Application

When a customer fails to pay purchased amount by the settlement date (Balance Failure), the Member has to 'freeze' the customer's account against any margin trading for 30 days following the event. The 'account freeze' here means that the Member has to collect 100% of purchased amount or 100% of sold securities (i.e. no margin-trading) when receiving orders from that particular customer. When the 'account freeze' is triggered by failure to deliver the sold securities, such Member has to freeze the customer's account for next 90 days.

To make the rule clear and to prevent any loopholes, all Members shall apply this 'No Margin-Trading Action' to the customer even when;

- i. the customer sells purchased securities before the settlement date (T+2) and yet still fails to meet the required payment balance on T+2;
- ii. the customer's balance failure occurred through other Member (such customer's information will be registered and shared through Credit Information Agency¹⁹⁾; and
- iii. the balance failure occurred through transactions carried out in other securities market (i.e. the rule shall be applied regardless of KOSPI Market or KOSDAQ Market).

However, exceptions to this Rule shall be applied when;

- i. amount of balance failure is less than 100,000_{KRW} and
- ii. payment or delivery is delayed by causes such as natural disaster, state of emergency, network failure, Member's mistakes or when the Member acknowledges that there was no malicious intentions or gross negligence from the concerned customer.

Case : Balance Failure even when Customer Sells Purchased Securities on T+1

	T	T+1	T+2	T+3	T+4	T+5
Account Balance	40	-	(-60)	50		
Transaction & Settlement	Purchase Securities (valued at 100)	Sold Securities (valued at 110)	Balance Failure	B/F Relieved		
Action				'No Margin-Trading' for 30 days		

19) Currently, KOFIA (Korea Financial Investment Association) is a registered Credit Agency who takes the role of handling information on customer's balance failures.

- ☞ On T+2, balance failure occurs because the customer has failed to pay remaining amount (60) of purchased transaction. On T+3, the Member shall freeze the account against any margin-trading for next 30 days. The customer may only make new purchasing transactions within the account balance (50) during this period.



4. Members' Brokerage Commission ([§100 KOSPI / §49 KOSDAQ](#))

Members may levy brokerage commission for conducting customers' transaction. This commission shall be collected at the time of customer's settlement. Statutory rule on commission rate was completely waived on September 1st 1997 to facilitate fair competition among Members and for deregulation purposes. Since then, Members have been determining their own commission policies.

However, when intending to establish new policy on brokerage commission or when revising the existing policy, such Member is required to disclose (through KOFIA) the information before its effective date. Members are also required to inform KRX of the new or revised policy within 5 trading days after its effective date.

Introduction to Trading at KRX Stock Markets



III . Trading at KRX Stock Markets

1. Market Operations
2. Trade Executions
3. Market Management
4. Special Cases of Trade Executions
5. Alternative Trading Methods
6. Liquidity Providers



1. Market Operations

(1) Trading Hours ($\$4$ KOSPI / $\$4$ KOSDAQ)

Korean Stock Market's lunch hour break (12:00~13:00) was abolished on May 22nd 2000. Since then, KRX Stock Markets have been running single Regular Session from 09:00 to 15:00. The decision on abolishing lunch hour break in year 2000 was to prevent any frictions in price-discovery due to a mid-day trading stop and also to meet increasing demand for more trading opportunities.

KRX runs Off-Hours Session (available for stocks, KDRs, ETFs) to offer additional trading opportunities. The off-hours session is divided into Pre-hours and After-hours with different trading mechanisms²⁰⁾.

Trading Hours for KRX Stock Markets are shown in the table below.

		<i>Quotation Receiving Hours*</i>	<i>Trading Hours</i>
Regular Session		08:00 ~ 15:00 (7hrs)	09:00 ~ 15:00 (6hrs)
Off-hours Session	Pre-hours	07:30 ~ 09:00** (1hr 30min)	07:30 ~ 09:00 (1hr 30min)
	After-hours	15:00 ~ 18:00 (3hrs)	15:10 ~ 18:00 (2hrs 50min)

* Quotations (refer to as quotes submitted by the Members on behalf of their customers) shall be submitted to the Exchange only during Quotation Receiving Hours.

** Pre-hours Closing-price Auction session and A-blox session runs from 07:30 to 08:30.

KRX may change the trading hours from time to time when deemed necessary due to certain market conditions. And, following changes are made on an annual basis;

- i. First trading day of the year : regular session shortened to 10:00~15:00 (quotations are received from 09:00 to 15:00)
- ii. National college exam day : regular session shifted to 10:00~16:00 (quotations are received from 09:00 to 16:00)

(2) Trading Holidays ($\$5$ KOSPI/ $\$5$ KOSDAQ)

KRX stock markets are closed for trading and settlement on following holidays.

20) See III-5-(2) for description on 'Off hours Trading'.



- i. Holidays according to the 「Regulation on Government Holidays」 which includes Sundays and national holidays (refer to the table below)
- ii. Labor Day (May 1st)
- iii. Saturdays
- iv. Last business day of the year (December 31st or preceding business day if it is a holiday)

KRX may impose temporary Trading Holidays when deemed necessary due to extreme market conditions.

Last business day of the year is closed to allow the market industry to conduct necessary end-of-year business processes such as corporate events (ex-dividends, and ex-rights) and IT system inspections. Before 2001, markets were closed for more than 3 days at the end of the year due to cumbersome process such as registration of shareholder's name for company's book-closure.

Trading Holidays of KRX Securities Markets (KOSPI & KOSDAQ)

Holiday	Effective Date	2011	2012
New Year's day	Jan. 1	Jan. 1 (Sat)	Jan. 1 (Sun)
Lunar Calendar New Year's holiday	Lunar calendar, Dec. 30 ~ Jan. 2	Feb. 2~4 (Wed~Fri)	Jan. 22~24 (Sun~Tue)
3.1 Independence Movement day	Mar. 1	Mar. 1 (Tue)	Mar. 1 (Thu)
Labor day	May. 1	May. 1 (Sun)	May. 1 (Tue)
Children's day	May. 5	May. 5 (Thu)	May. 5 (Sat)
Budha's Birthday	Lunar calendar Apr. 8	May. 10 (Tue)	May. 28 (Mon)
Memorial day	Jun. 6	Jun. 6 (Mon)	Jun. 6 (Wed)
Independence day	Aug. 15	Aug. 15 (Mon)	Aug. 15 (Wed)
Chusok (thanksgiving) Holiday	Lunar calendar, Aug. 14~16	Sep. 11~13 (Sun~Tue)	Sep. 29 ~ Oct. 1 (Sat~Mon)
National Foundation day	Oct. 3	Oct. 3 (Mon)	Oct. 3 (Wed)
Christmas holiday	Dec. 25	Dec. 25 (Sun)	Dec. 25 (Tue)
End of year market close (non holiday)	Last business day of the year	Dec. 30 (Fri)	Dec. 31 (Mon)
* Election day	Depending on government's election schedule	none	National Election day Apr. 11 (Wed) President Election day Dec. 19 (Wed)

(3) Trading Unit (§33 ER KOSPI / §18 ER KOSDAQ)

Trading unit (also known as 'Trading Lot') is the minimum unit of trading size acceptable in the exchange market. In other words, market participants' quotation size has to be in multiple number of the trading unit.

Smaller Trading Unit may enhance investors' trading convenience, but, on the other hand, it may increase the data traffic in the system leading to possible transaction delays. Large trading unit will become a barrier to those investors willing to trade in smaller sizes. Thus, it is important for the Exchange to establish optimal trading unit taking into account of both market participants' trading convenience and efficiency of Exchange market operation.

Current Trading Units for listed securities on KRX markets are shown in the table below.

	<i>Trading Unit</i>	
	<i>KOSPI</i>	<i>KOSDAQ</i>
Stocks	10 shares (1 share if the base price is higher than 50,000 _{KRW})	1 share
Korea Depository Receipts (KDRs)	10 shares	1 shares
Exchange Traded Funds (ETFs)	1 share	1 share
Equity Linked Warrants (ELWs)	10 warrants	-
Subscription Warrants	1 warrant	1 warrant
Certificate of Subscription Rights	1 certificate	1 certificate
Beneficiary Certificates	10 certificates	1 certificates

During the off-hours session (available for stocks, KDRs, ETFs), trading unit shall be 1 regardless of type of the securities and the prices. KRX may change trading units when deemed necessary due to certain market conditions such as sudden surge of quotation traffic in the market.

(4) Tick Size (§32 ER KOSPI / §18 ER KOSDAQ)

Tick Size is the smallest increment by which the price of securities can move in the market. Based on similar reasoning as the trading unit, KRX establishes the optimal tick size taking into account of both efficiency and convenience of market participants.



At KRX securities markets, different tick sizes are applied based on the price of concerned securities (as shown in the table below).

Price of Securities (in KRW)	Tick Size (in KRW)		
	KOSPI Market	KOSDAQ Market	
	less than 1,000	1	1
1,000 or higher	less than 5,000	5	5
5,000 or higher	less than 10,000	10	10
10,000 or higher	less than 50,000	50	50
50,000 or higher	less than 100,000	100	100
100,000 or higher	less than 500,000	500	100
500,000 or higher		1,000	100

* Tick size for ETF and ELW is 5_{KRW} regardless of the price.

(5) Order (Quotations) Types ($\S 2$ KOSPI / $\S 2$, $\S 37-2$ ER KOSDAQ)

KRX Business Regulations define "Order" as an expression of customers' intentions to buy (bid) or sell (ask) a security and "Quotation" as an expression of Members' intentions to carry out the trade (either proprietary or customer's) under its name. So, immediately upon receiving those orders, Members will route corresponding quotations to KRX system for execution. KRX offers various order types that market participants can utilize for different trading strategies. Following type of orders are available at KRX stock markets.

① **Limit Order**, which is the most commonly used order type, is an intention to trade at the price (or at a better price if available) specified by the investor. Thus, bid limit orders will be executed only at (or at prices lower than) the price specified by the investor. On the other hand, ask limit orders will be executed only at (or at prices higher than) the price specified by the investor.

e.g.) A bid limit order of 10,000_{KRW} is traded at 10,000_{KRW} or lower, and an ask limit order of 10,000_{KRW} is traded at 10,000_{KRW} or higher.

Limit orders are useful to investors in that orders will not be traded at unfavorable prices than the specified price. However, there is a possibility of the order not being traded at all if there is no counter side order that meets the specified price conditions.

② **Market Order**²¹⁾ is an intention to trade immediately at the best price available in the market until the full size is filled. Thus, investors will specify name of the security and quantity but not the price. Market order is advantageous in that it can be traded immediately (if there are available counter side orders) at the time of placing the order.

However, it poses the risk of extreme price fluctuations in case when there is lack of orders on the counter side. Therefore, the market order can not be used for trading securities which are not subject to daily price limitations²²⁾ or securities which have lack of liquidity. Such securities are Liquidation Issues²³⁾, Subscription Warrants, Certificate of Subscription Rights, ELWs, and Debt Securities.

③ **Limit-to-Market-on-Close Order**²⁴⁾ (hereinafter "LMC Order") is an order that participates in the market as a limit order during the regular session, but has the condition to convert remaining quantity of the order to a market order at 14:50 when the quotation receiving hours begins for the market closing call auction²⁵⁾.

LMC order type complements the drawbacks of limit order by enhancing the possibility of the order being traded during the day while maintaining the benefits of limit orders throughout the regular session. LMC order can not be placed with the prices at upper bound or lower bound of daily price limitations.

④ **Immediately Executable Limit Order**²⁶⁾ is a limit order having condition to designate the limit price at the best available price on the counter side of the order-book, thus allowing the order to be executed immediately yet limiting the trade-able price (which is different from market order).

For instance, if an investor places immediately executable limit order to sell a security, the highest bid price at the time (when the order is received by KRX) will be the investor's limit price. And vice versa for bid orders.

⑤ **Best Limit Order**²⁷⁾ is a limit order having condition to designate the limit price at the best available price on the same side of the order-book.

21) Introduced on Nov 25th 1996 for KOSPI Market and on Jul 1st 2002 for KOSDAQ Market

22) See III-1-(6) for description on 'Daily Price Limitations'

23) See III-3-(4) for description on 'Liquidation Issues'

24) Introduced on Nov 25th 1996 for KOSPI Market and on Oct 24th 2005 for KOSDAQ Market

25) See III-2-(2)-A for description on 'Call Auction.'

26) Introduced on Jan 26th 2001 for KOSPI Market and on July 26th 2004 for KOSDAQ Market

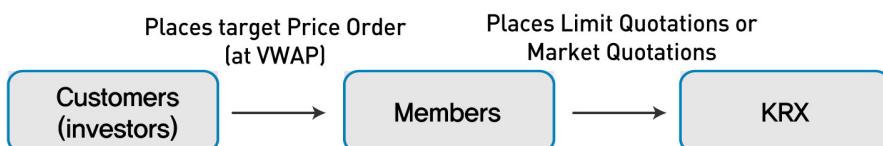
27) Introduced on Jan 26th 2001 for KOSPI Market and on July 26th 2004 for KOSDAQ Market



For instance, if an investor places best limit order to sell a security, the lowest ask price at the time (when the order is received by KRX) will be the investor's limit price. And vice versa for bid orders.

- ⑥ **Target Price Order²⁸⁾** is an order specifying the intention to trade at (or close to) the target price such as Volume Weighted Average Price (hereinafter "VWAP"). Since there is no 'Target Price Quotations,' the Member, whom the order is entrusted to, will split the target order into fractions and submit numerous Limit Quotations or Market Quotations throughout the trading session to meet the target price. This will be conducted on a best effort basis.

■ Target Price Order and Quotation



- ⑦ **A-blox Order²⁹⁾** is an anonymous order to trade at VWAP of the day. These orders will not be displayed and only be matched against the other A-blox orders through separate pool (similar to dark-pool facility). A-blox was introduced to meet the demand of institutions seeking to minimize transaction cost of large lot trading, thus, it has different conditions such as minimum order size (please refer to III-5-(3) for detailed explanation).

■ Special Order Conditions (IOC & FOK)

Investors can input any one of following 2 conditions on Limit Orders, Market Orders, and Immediately Executable Limit Orders to pursue diverse trading strategies.

- ① **IOC (Immediate or Cancel):** *At the time the order is received by KRX (entered into the order-book), the order shall be executed with matching orders on the counter side (if there is any) and cancel, immediately, all remaining quantity of the order.*
- ② **FOK (Fill or Kill):** *At the time the order is received by KRX (entered into the order-book), the order shall be executed in full quantity with matching orders on the counter side or cancel the order, immediately, if full quantity can not be matched.*

Above conditions can not be attached to LMC Orders and Best Limit Orders.

28) Introduced on May 30th 2005

29) Introduced on November 29th 2010

(6) Order Amendment and Cancelation (§17 ER KOSPI / §13 ER KOSDAQ)

Investors may cancel or amend an order if there is remaining quantity that has not been executed. Cancelation or Amendment can be effected partially or entirely.

Amendment is allowed for changing order type or changing the price, thus, there is no amendment for changing the size (quantity) of an order. Amended order will be treated as a new order with the time priority being renewed to the time amended.

(7) Daily Price Limitations (§20 KOSPI / §14 KOSDAQ)

Daily Price Limitation is a set of upper bound and lower bound to which the price of listed securities can move in a day. Investors or Members can not place orders or quotations exceeding the upper or lower price limitations. KRX adopts such daily price limitation ($\pm 15\%$) system to protect investors from sudden price fluctuations.

For each trading day, KRX calculates and publishes $\pm 15\%$ price range of each securities in effect. Calculation is processed in following order;

- i. Price limit value : base-price (explained in detail below) multiplied by 15%. In this case, any amount less than the tick size of the base-price will be disregarded. And if such value is less than the lowest tick size (1KRW), then the lowest tick size will be used as the Price Limit Value.
- ii. Upper bound : base-price + price limit value. If calculated upper bound is inconsistent with the tick size, then the nearest price, which is consistent with the tick size and lower than the calculated price, will be used as the upper bound.
- iii. Lower bound : base-price - price limit value. Lower bound will not go below 1_{KRW}.

Daily price limitations are not applied to ELWs, Certificate of Subscription Rights, Subscription Warrants, and issues under liquidation trading. KRX has recently amended the regulation (effective as of May 10th 2010) to allow Leveraged ETFs³⁰⁾ to have daily price limitations of 15% multiplied by its tracking ratio (i.e. a product with the tracking ratio of 2X will be applied with $\pm 30\%$ limitations).

30) Leveraged ETFs refer to funds, according to article 7-26-(4)-1 of Regulations on Financial Investment Business, that are managed to track price movement of underlying assets multiplied by the fixed rate (tracking ratio).



History of Daily Price Limitations

Date	KOSPI Market		Date	KOSDAQ Market	
Before Apr. 1995	Fixed Amount (based on price of the security)	4.6% on average	Before Nov. 1996	Fixed Amount (based on price of the security)	5.4% on average
Apr 1 st 1995		6%	Nov 1 st 1996		8%
Nov 25 th 1996	Fixed Rate	8%		Fixed Rate	
Mar 2 nd 1998	Basis	12%	May 25 th 1998	Basis	12%
Dec 7 th 1998		15%	Mar 28 th 2005		15%

(8) Base-Price ($\$30$ ER KOSPI / $\$17$ ER KOSDAQ)

Base-price of each security (stocks, ETFs, and beneficiary certificates) is used as the basis for determining the security's Daily Price Limitations, Substitute Value³¹⁾, and Trading Unit of the day.

In normal cases, the day's Base-Price will be the (regular session) closing price of the previous day. If the security had no transaction during the previous day regular session, then 'Quotation Driven Closing Price (further explained below)' will be the day's Base-Price (thus, hereinafter, closing price refers to the last transaction price or 'Quotation Driven Closing Price' of regular session). If there was no closing price on previous day, then today's Base-Price will be same as the Base-Price of previous day.

When there is a corporate action such as capital increase (excluding the 3rd party allocation method and the public offering method), stock dividend³²⁾, stock split, stock consolidation (also known as a reverse stock split), and etc., KRX will calculate theoretical price of the security and use it as the security's Base-Price. This price adjustment is necessary to maintain the consistency in value of securities before and after the corporate action.

31) See II-3-(2) for description on 'Substitute Securities'

32) See III-3-(3) for description on 'Ex-dividends and Ex-rights'

Case: Base-Price adjustment in case of stock split

ABC Ltd, which has 1,000 shares listed at KRX KOSPI Market, has recently decided to split each 1 share into 10 shares (10 for 1 stock split) to increase the liquidity of its shares. Trading of ABC Ltd. shares will be suspended for approximately 2~3 weeks for necessary stock split process (confirming shareholders, issuing new shares, etc.). Share price of ABC Ltd. closed at 10,000_{KRW} before the trading suspension.

⇒ On the day when ABC Ltd. is re-listed with newly issued shares (when trading resumes), KRX will set new Base-Price of the share at 1,000_{KRW}. With this adjustment, total market value of ABC Ltd. will remain the same as pre stock split.

- Pre stock split market cap. : 10,000_{KRW} × 1,000 shares = 10,000,000_{KRW}
- Post stock split market cap. : 1,000_{KRW} × 10,000 shares = 10,000,000_{KRW}

In case when KRX is unable to calculate the theoretical price such as first trading day of newly listed securities, Base-Price will be determined in the market through single price Call Auction method³³⁾.

KRX may also adjust the Base-Price when deemed necessary due to certain market conditions (such as long days of trading suspension).

(9) Quotation Driven Closing Price (§2 KOSPI / §2 KOSDAQ)

KRX recognizes eligible quotation as the official closing price of the day even when the security had no transaction during the regular session. So called 'Quotation Driven Closing Price' shall be the lowest ask price (or the highest bid price) in case when there are ask (or bid) quotations with prices lower (or higher) than the day's Base-Price.

This price recognition not only reflects quotation pressure onto the price of securities with low liquidity, but it also helps to effectively reflect sudden change in market conditions. For example, as daily price movement is limited to certain range at KRX Securities markets, there is a possibility that one side of the quotations will dry out and other side of the quotations will concentrate when high-impact company information is disclosed. Such cases will lead to no transaction but it is apparent that price is willing to change beyond the daily price limitations. Thus, the market needs to have new price range (extended from previous day) with the quotation driven closing price or

33) See III-2-(2)-A for description on 'Call Auction Method,' and III-4-(1) for description on 'Determination of the first Base-price of newly listed and re-listed Securities.'



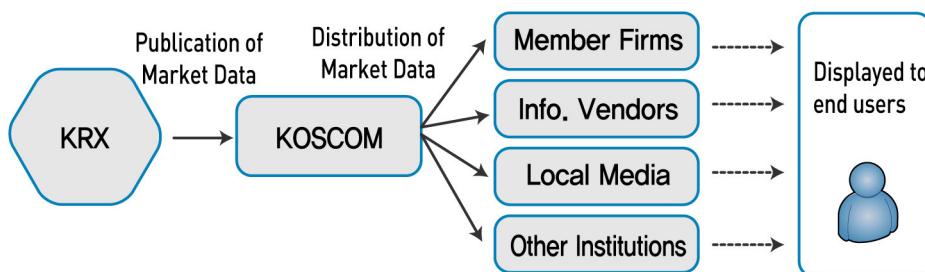
otherwise the same price range will be affected on following trading day.

(Exception) when the price of preferred share is 10 times higher than the price of its common shares, any bid quotations on such preferred shares shall not be construed as the quotation driven closing price.

(10) Publication of Quotation Information (§126 ER KOSPI / §52 ER KOSDAQ)

KRX publishes real-time quotation information and transaction information as a reference to market participants in pursuing their investment strategies. Such information is displayed to the public through primary information vendor, KOSCOM.

Market Data Distribution and Display



During continuous auction (regular session), following information is disclosed among others on a real-time basis; last transaction price, cumulated transaction volume & value, price & size (quantity) of top 10 bid/ask quotations (including the best bid and ask quotations), and total size of top 10 quotations on each side. For ELWs and ETFs, quotations submitted by Liquidity Providers³⁴⁾ are distinguished from other quotations.

During Quotation Receiving Hours for call auction sessions (08:00~09:00 for opening price and 14:50~15:00 for closing price), following information is disclosed on a real-time basis; preliminary transaction price & volume, and price & quantity of preliminary top 3 bid/ask quotations. During quotation receiving hours for opening call auction, disclosure of market information begins at 08:10.

34) See III-6 for description on 'Liquidity Providers.'



2. Trade Executions

(1) Principles of Trade Execution (\$22 KOSPI / \$17 KOSDAQ)

In the exchange market, thousands and millions of quotations compete with each other for a better price and for a faster trade. Therefore, exchanges need to establish distinct principles of trade executions (i.e., price priority and time priority) to facilitate fair and orderly trading environment.

A Price Priority

Among bid quotations, a quotation with higher price has execution priority over the quotations with lower prices. And among ask quotations, a quotation with lower price has execution priority over the ones with higher prices.

Market quotations (orders) always have price priority over Limit quotations (order). However, due to daily price limitations, ask market quotation & ask limit quotation placed at the lower price limit have same price priority. Same exception is applied to bid market quotations and bid limit quotations placed at the upper price limit.

B Time priority

Among same-side quotations placed at same price and among same-side market quotations, a quotation received earlier has priority over those received later.

Case: Simple Trade Executions during regular session

<i>Ask Quotations (Quantity)</i>	<i>Price</i>	<i>Bid Quotations (Quantity)</i>
	20,150	20 _①
	20,100	200 _② , 300 _③
	20,050	
300 _③ , 200 _②	20,000	
20 _①	19,950	

* ①, ② and ③ refer to sequence of trade executions.

☞ Bid quotation ① & ask quotation ① are executed first in accordance with Price Priority principle. Based on Time Priority, quotations ②, which came in first, have execution priority over quotations ③.

**C**

Exception to Time Priority (Simultaneous Quotations)

There is an exception to the Principle of Time Priority during Single Price Call Auction³⁵⁾ (hereinafter "Call Auction"). This exceptional case is applied;

- i. when the opening price (call price) of regular session is determined at upper or lower price limitations; and,
- ii. when trading resumes from circuit breakers³⁶⁾, trading suspensions or trading halts³⁷⁾ with the initial price (call price) at upper or lower price limitations.

However, this exception is not effective in closing price call auction and off-hours call auction session.

When simultaneous quotation is in effect, bid quotations at upper price limitations (including bid market quotations) or ask quotations at lower price limitations (including ask market quotations) are construed as simultaneous quotations, thus having no time priority over others (§22 KOSPI / §17 KOSDAQ)³⁸⁾.

Rationale behind this exception is to ensure fair trading opportunities for all market participants in case of extreme market conditions. For example, if orders (quotations) are executed according to the time priority when the call price is determined at upper or lower price limitations, investors who have placed orders earlier with large quantity will consume majority of orders on other side of the order-book. Thus investors who have placed the orders later will have lack of opportunity for execution even though they have same price conditions (they can not place better price orders due to daily price limitations).

When Simultaneous Quotations is in effect, following principles shall be applied; (§34 ER KOSPI / §19 ER KOSDAQ)

① Customer priority

Customer orders have execution priority over Members proprietary orders. Purpose of this principle is to prevent potential conflict of interests arising from Members conducting both brokerage business and dealing (prop) business.

35) See III-2-(2)-A for description on 'Call Auction Method'

36) See III-3-(1) for description on 'Circuit Breakers'

37) See III-3-(2) for description on 'Trading Halts'

38) Introduced on Oct. 3rd 2001 for KOSPI Market and on Mar. 7th 2005 for KOSDAQ market.

② Quantity Priority

Among customer orders and among proprietary orders, an order with larger quantity has priority over an order with smaller quantity.

And, at the execution time, fixed number of shares (see the table below) will be equally allocated against every order available based on above priority principles. There will be 6 matching cycle with different sizes. When every order has been allocated during the first cycle, and when there are counter side orders still remaining, next allocation cycle will become effective. This pro rata matching method will provide level playing field for all market participants (including retail investors) during exceptional call auction conditions.

-KOSPI Market : ① 10 x trading unit (100shares) → ② 50 x trading unit (500shares) → ③ 100 x trading unit (1,000shares) → ④ 200 x trading unit (2,000shares) → ⑤ 1/2 of remaining quantity → ⑥ remaining quantity³⁹⁾

-KOSDAQ Market : 100 x trading unit (100shares) → ② 500 x trading unit (500shares) → ③ 1,000 x trading unit (1,000shares) → ④ 2,000 x trading unit (2,000shares) → ⑤ 1/2 of remaining quantity → ⑥ remaining quantity

To provide better opportunities to the retail investors trading in small lots, this matching quantity was further broken down into 6 cycles⁴⁰⁾ on Aug. 25th 2003.

Case: Call Auction Execution when Simultaneous Quotations is in Effect

(Case) Opening price is to be determined at upper price limit (20,150_{KRW}), and following table shows the order-book at the time.

Ask Quotations (Quantity)	Price (in KRW)	Bid Quotations (Quantity)		
4,000; 1,500; 600	(6,100)	20,150	(16,200)	1,000 _① ; 200 _② ; 10,000 _③ ; 5,000 _④ ;
1,700; 1,500	(3,200)	20,100		500; 700
1,300; 1,000	(2,300)	20,050		400
800	(800)	20,000		
700	(700)	19,950		
	13,100	Total	16,200	

* ①, ②... refers to sequence of quotations received by the exchange.

39) In case of securities with base-price higher than 50,000_{KRW}, the matching quantity shall be; ① 10 shares → ② 50 shares → ③ 100 shares → ④ 200 shares → ⑤ 1/2 of remaining quantity → ⑥ remaining quantity

40) Previous 3 cycle distribution: 100shares → 1/2 of remaining quantity → remaining quantity.

☞ Bid Quotations at the upper price limitations can consume every Ask Quotations, thus opening price will be determined at the upper price limitation and Simultaneous Quotations comes into effect.

(Execution Result at 09:00) Price is determined at upper price limitation (20,150_{KRW}) and every ask quotation (13,100 shares) will be equally distributed to 4 bid quotations at such price (matching scenario shown in the table below). Although regular session will start at 09:00, Simultaneous Quotation matching method will be effective until concerned bid quotations (in this case, remaining 3,100 shares) are completely consumed either by matching against new ask quotations or cancellation /amendment of concerned quotations.

Cycle	Quotation ③ (10,000 shares)	Quotation ④ (5,000 shares)	Quotation ① (1,000 shares)	Quotation ② (200 shares)
①	100	100	100	100
②	500	500	500	100
③	1,000	1,000	400	—
④	2,000	2,000	—	—
⑤	3,200	700	—	—
⑥	800	—	—	—
Total Volume (13,100 shares)	7,600	4,300	1,000	200

(Case) Let's assume that additional quotations ⑤~⑨ (shown in the table below) have been submitted after the market open.

Ask Quotations (Quantity)	Price (in KRW)	Bid Quotations (Quantity)
3,000 _⑤ ; 1,000 _⑦ ; 500 _⑨	20,150	2,400 _③ ; 700 _④ ; 1,000 _⑥ ; 500 _⑧

☞ After the determination of opening price, Simultaneous Quotation is still in effect for those remaining bid quotations ③ and ④.

(Execution Result) Simultaneous Quotation will be relieved after the executions of following quotations; ⑤-③ 2,400 shares, ⑤-④ 600 shares, ⑦-④ 100 shares.

And following quotations will be matched according the principle of time priority; ⑦-⑥ 900 shares, ⑨-⑥ 100 shares, ⑨-⑧ 400 shares.

(2) Method of Trade Executions

Method of Trade Execution in Securities Market may vary according to the competition landscape and price discovery mechanism among trading orders

- i. **Competitive Auction:** trades are executed based on price competition among buyers and sellers.
- ii. **Negotiated Transaction:** trades are executed based on negotiated price between buyers and sellers.
- iii. **Open Bid Auction:** Single selling party receives bid orders from multiple parties for an execution.

In general, KRX Securities Markets adopt competitive auction method and this is further broken down into Single Price Call Auction and Continuous Auction. KRX also adopts, as an alternative trading opportunity, negotiated transaction method for large lot trading⁴¹⁾

Single Price Call Auction (§23 KOSPI / §18 KOSDAQ)

(Application) As shown in the table below, Call Auction method is applied when there is a need to find new equilibrium price after the discontinued trading in the market.

<i>Call Auction is applied when;</i>	<i>Quotations participating in the Call Auction are;</i>
• determining opening price of the regular-session	• received from the start of quotation receiving hours (08:00) to the opening of the regular-session (09:00)
• determining initial price when trade resumes after the trading halts or suspensions	• received during first 10 minutes of trade resumption (in case of system malfunction, it may vary depending on the case)
• determining closing price of the regular-session	• received during last 10 minutes of the regular session (14:50~15:00)
• determining periodic prices of issues under liquidation trading • determining periodic prices of Administrative Issues in KOSDAQ Market	• received from the start of quotation receiving hours (08:00) to closing of the regular-session (15:00) (periodic call execution at every 30 minutes)
• determining periodic prices during off-hours call auction session	• received from the start of off-hours call auction session (15:30) to the end of the session (18:00) (periodic call execution at every 30 minutes)

(Call Execution method) KRX will calculate the "Call Price" so that most bid and ask quotations can be matched at once. Thus, it is also known as equilibrium price. Such price will meet following 2 conditions;

- i. entire quantity of ask quotations at prices lower than the call price and entire

41) See III-5 for description on 'Alternative Trading Methods'.



- quantity of bid quotations at prices higher than the Call Price will be executed.
- ii. for quotations placed at the Call Price, entire quantity of at least one side of the order-book (either ask or bid quotations) will be executed and, quantity greater than the 'Trading Unit'⁴²⁾ shall be executed on the counter side of the same price.

Based on above 2 conditions, there will be cases (especially on the security with lack of quotations) when 2 or more Call Prices are calculated. In this case, final Call Price will be determined according to following 2 conditions;

- i. when the last transaction price (i.e. in case of opening Call Auction, Base-Price of the day) is within the range of potential Call Prices, then the last transaction price will be the Call Price; or
- ii. when the last transaction price is not within the range of potential Call Prices, then the price closest to the last transaction price will be the Call Price.

Case: Opening Price Executions by Call Auction method

(Case 1)

As shown in the table below, by sequentially matching from the highest bid quotations with the lowest ask quotations, it is concluded that the largest quantity can be matched at 15,250_{KRW} (Call Price). Thus all bid quotations with prices above the Call Price and all ask quotations with prices below the Call Price will be matched at 15,250_{KRW}. Quotations placed at the Call Price will be executed according to the time priority.

<i>Ask Quotations (Quantity)</i>	<i>Price (in KRW)</i>	<i>Bid Quotations (Quantity)</i>
–	15,400	●(1,000)
○ ○	15,350	●(300)
○ ○ ○	15,300	●(200) ●(300)
○ _④ ○ _③ ● _② ● _① (2,000) (1,000) (500) (100)	15,250	● _① ● _② (100) (200)
(150)●	15,200	○ ○
(500)● (500)●	15,150	○
(500)●	15,100	○ ○ ○
(150)●	15,050	–

* ○: no execution; ●: partially executed ●: entire quantity executed

42) Zero quantity is construed as meeting these execution conditions.

(Case 2)

When there are 2 or more potential Call Prices, final Call Price will be determined based on the last transaction price. Order-book scenario in the table below shows that any prices from 15,100_{KRW} to 15,350_{KRW} can be a Call Price to match 400 shares. And in this case;

- i. If the last transaction price was within the range of 15,100_{KRW} to 15,350_{KRW}, then the Call Price is the last transaction price;
- ii. If the last transaction price was higher than 15,350_{KRW}, then the Call Price is 15,350_{KRW}; or
- iii. If the last transaction price was lower than 15,100_{KRW}, then the Call Price is 15,100_{KRW}.

Ask Quotations (Quantity)	Price (in KRW)	Bid Quotations (Quantity)
	15,400	●(200)
	15,350	●(200)
	15,300	
	15,250	
	15,200	
	15,150	
(200)●	15,100	
(200)●	15,050	

(Case 3)

In case where the call price is determined at daily price limitations, Simultaneous Quotations will go into effect⁴³⁾.

(Random End) When potential Call Price (including off-hours call auction session) deviates substantially during last minutes of quotation receiving hours, call execution time will be extended to a point randomly decided by the system. This Random End rule⁴⁴⁾ was adopted to prevent possible price manipulations by deceptive orders during Call Auction Session.

In specific, Random End is triggered when potential Call Price deviates by more than 5% (3% in case of off-hours call auction session) from either the highest or the lowest

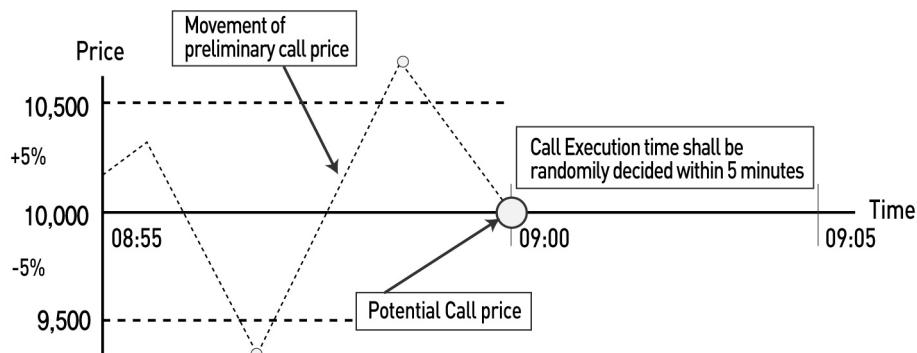
43) See III-2-(1)-C for description on 'Exception to Time Priority (Simultaneous Quotations).'

44) Introduced on Jan. 26th 2004 for KOSPI Market and on Mar. 7th 2005 for KOSDAQ Market



of preliminary call prices⁴⁵⁾ published during last 5 minutes of the call auction session. Once triggered, call execution time will be delayed for random period up to 5 minutes. Additional quotations (including amendment or cancellation of existing quotations) shall be received during this randomly extended period and the Call Price will be determined at the new call execution time. However, Random End will not be triggered if the potential call price is within 1% range of the last transaction price (Base-Price, in case of call auction for opening price).

Case : Application of Random End



On May 30th 2011, KRX has adopted additional Random End triggering condition for the KOSPI Market. This new condition is applied only to closing auction session of the days when KOSPI 200 Futures or KOSPI 200 Options product expires in the Derivatives Market. In specific, Random End will be triggered when final call price deviates by more than 3% from the last transaction price (last price published at 14:50). This new rule aims to minimize any negative effects (such as higher volatility) from programmed arbitrage trading strategies which have tendency to close out large amount of existing positions in the cash market when corresponding derivatives position expires.

B Continuous Auction⁴⁶⁾ (§24 KOSPI / §19 KOSDAQ)

(Application) Continuous Auction method is applied to all trading sessions where call auction method is not applied.

(Execution method) Based on principles of Price Priority and Time Priority, quotations are executed instantly if there are match-able quotations on the counter side of the

⁴⁵⁾ See III-1-(10) for description on 'Publication of Quotation Information.'

⁴⁶⁾ Also defined as "Multi Price Auction" in the Business Regulations

order-book. Thus, multi prices will be discovered continuously in the market. This method allows investors to make timely transactions by reflecting the most up-to-date market information to their trading.

Case : Trade Executions by Continuous Auction method

As shown in the tables below, bid quotations and ask quotations compete for a transaction in the market. And as soon as the lowest ask quotation and the highest bid quotation are matched, those 2 quotations will be executed at the price of earlier quotation

(Case 1)

<i>Ask</i>	<i>Price</i>	<i>Bid</i>	<i>Results of Trade Executions</i>
	10,400		
200 _②	10,350		
	10,300	500 _①	
200 _③	10,250		
	10,200		⟨1⟩ ①–③: 200 shares at 10,300 _{KRW}
	10,150		⟨2⟩ ①–④: 200 shares at 10,300 _{KRW}
	10,300		
200 _④	10,250		

(Case 2)

<i>Ask</i>	<i>Price</i>	<i>Bid</i>	<i>Results of Trade Executions</i>
	10,600	500 _①	
	10,550		
	10,500		
	10,450		⟨1⟩ ①–③: 200 shares at 10,600 _{KRW}
200 _③	10,400		⟨2⟩ ①–④: 200 shares at 10,600 _{KRW}
	10,350	200 _②	
	10,300		
200 _④	10,250		

(Case 3)

<i>Ask</i>	<i>Price</i>	<i>Bid</i>	<i>Results of Trade Executions</i>
	10,600	100 _①	
	10,550		
	10,500	300 _⑤	
	10,450		
200 _③	10,400		
	10,350	200 _②	
	10,300		
200 _④	10,250		



3. Market Management

(1) Temporary Market Suspension (Circuit Breakers)



Background

In extreme market conditions, there is always a possibility of investors over-reacting to the market direction rather than making rational decisions. Thus, KRX adopted⁴⁷⁾ Circuit Breaker (hereinafter "CB") system to provide cooling-off period for market participants in times of sudden market downfalls. This CB system functions as additional price stabilizing mechanism to the Daily Price Limitation which was extended to 15% from previous 12% at the time.



Rule Application (§25 KOSPI §39 ER KOSPI / §26 KOSDAQ 31 ER KOSDAQ)

CB will be triggered when KOSPI index (KOSDAQ index in case of KOSDAQ Market) falls by more than 10% from the closing value of previous day for at least 1

⁴⁷⁾ Introduced on Dec. 7th 1998 for KOSPI Market and on Oct. 15th 2001 for KOSDAQ Market

III. Trading at KRX Stock Markets

minute. CB mechanism is intended to prevent over-reaction on sudden market downfalls, thus, it is not triggered when the benchmark index rises by more than 10%.

Triggering of CB is limited to once per day to prevent frequent trading suspensions which may bring further uncertainties in the market. Also CB is not triggered during last 40 minutes of the regular session (from 14:20 to 15:00). This is based on rationale that, at all times, market must be closed as scheduled to minimize the investors' unexpected losses from sudden market closure.

When CB is triggered, trading of all listed Securities (excluding debt securities) in the Securities Market and trading of equity related derivatives products in the KRX Derivatives Market will be suspended for 20 minutes. During this period, new trading orders can not be submitted to the Exchange but market participants may cancel existing orders.

Trading will resume when 20 minutes suspension period expires. After the trade resumption, orders will be received for 10 minutes to determine the initial price through Call Auction method. After having determined the initial price at 30 minutes from triggering of CB, trades will be executed under the Continuous Auction method.

Cases of Circuit Breakers in Effect

Date (Market)	External Factors
Apr. 17 th 2000 (KOSPI)	Black Friday in the U.S. markets (Dow and Nasdaq index fell 5.56% and 9.67%, respectively)
Sep. 18 th 2000 (KOSPI)	Sharp downfalls in the U.S. markets; failure in acquisition of local auto-maker; surge in crude oil prices
Sep. 12 th 2001 (KOSPI)	9.11 terrorist attack in the U.S.
Jan. 23 rd 2006 (KOSDAQ)	Sharp downfalls in the U.S. markets; plunge of local thematic stocks
Aug. 16 th 2007 (KOSDAQ)	U.S. sub-prime mortgage market Crisis
Oct. 23 rd 2008 (KOSDAQ)	Global Financial Crisis
Oct. 24 th 2008 (KOSDAQ)	Economic Recession led by the Global Financial Crisis



(2) Trading Halts of Individual Issues ($\$26$ KOSPI / $\$25$ KOSDAQ)

A Triggering of Trading Halts

KRX may trigger trading halt on individual security issues when deemed necessary to protect investors and to facilitate orderly trading in the market;

In specific, Trading Halts on Individual Securities will be triggered when;

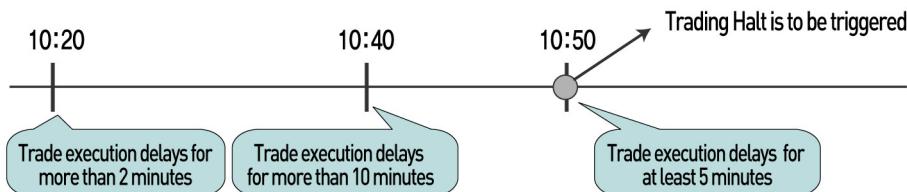
① price or trading volume of the concerned security fluctuates drastically or is expected to fluctuate drastically due to prevailing rumors about the company on any one of following matters;

- speculation that Promissory Notes or Credit Checks issued by the company are dishonored (bankrupted);
- speculation that the company's banking transaction has been suspended or halted;
- speculation that the company's business has been suspended in whole or in part;
- speculation on bankruptcy, liquidation, filing for corporate work-out program (either by a court order or an agreement among creditors) or de facto in work-out program;
- speculation that the Auditor has written Adverse Opinion, Disclaimer Opinion, or Qualified Opinion on the upcoming annual Audit Report;
- speculation that the company's capital impairment ratio will be more than 50% on the upcoming Audit Report; or
- speculation that Auditor has written Adverse Opinion or Disclaimer Opinion on semiannual report;

② there is a heavy concentration of orders to cause;

- trade execution delays of at least 10 minutes, and even after 10 minutes have passed from such recognition, trade execution delays of more than 5 minutes continues (this condition is not applied to KOSDAQ Market); or
- trade execution delays of more than 20 minutes.

Case : Trading Halt Triggered by Trade Execution Delays



③ it is deemed necessary for stable market operation such as when;

- Market Oversight Commission requests trading halts for those Securities under Investment-Risk warning⁴⁸⁾;
- there is important disclosure that may have significant impact on the Security (such as M&A);
- the Security is designated as 'Unfaithful Disclosure Company'

When Trading Halt has been triggered, relevant Certificate of Subscription Rights, Subscription Warrants, or ELWs having concerned security as an underlying asset may also be halted for trading.

B Trade Resumption

In case of a Trading Halt based on market rumors or speculations, trading will resume 30 minutes after the announcement of a responsive disclosure by the company⁴⁹⁾.

If the company's disclosure is released before the opening of regular-session, trading will resume 30 minutes after the market open. And if the company's disclosure is made during last 60 minutes of the regular-session, trading will resume on the next trading day. In case where rumors continue even after the responsive disclosure or in case where information in the responsive disclosure comes under the criteria for delisting or Administrative Issue⁵⁰⁾, trade resumption may be postponed.

In case of Trading Halt based on heavy concentration of trading orders, trade resumption time will be determined by the Exchange taking into account of market conditions and quotation conditions.

48) See III-3-(5) for description on 'Investment Warning System'

49) According to the Disclosure Regulation, when KRX requests for a responsive disclosure on such influential rumors, the company has to respond within 1 day.

50) See III-3-(4) for description on 'Administrative Issues'



(3) Ex-dividends and Ex-rights (§132 ER KOSPI / §53 ER KOSDAQ)

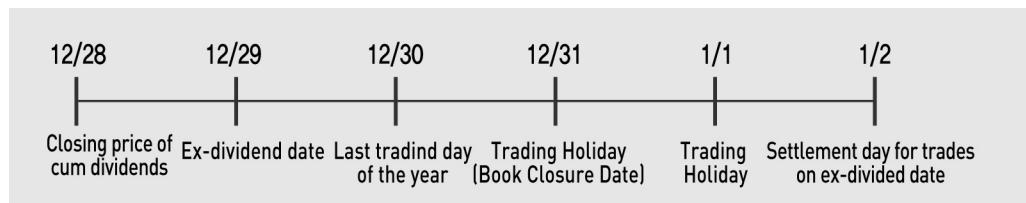
A Ex-Dividends

Ex-dividend is a market notification that investors purchasing Ex-dividend shares will not have the rights to receive forthcoming dividend from the concerned company. KRX makes appropriate price adjustment on the ex-dividend date in case of stock dividend (but no adjustment in case of cash dividend) to reflect price dilution caused by increase in number of outstanding shares.

Investors who have purchased the shares will become a shareholder of the company when shares are delivered to those investors on the settlement date. Thus, due to T+2 settlement cycle, ex-dividend date will be 1 trading day prior to the Confirmation Date for shareholders who will have rights to upcoming corporate actions (hereinafter "Book Closure Date"). So, in Korea, where most companies end their fiscal year on December 31st (Book Closure Date) and since KRX market is closed on the last business day of the year, ex-dividend is likely to be effected on December 29th (this date will depend on last business day of the year) which is 1 day prior to last trading & settlement day of the year.

If the Book Closure Date is in middle of Trading Halts on the company's shares (excluding the first day of the trading halt), trade resumption day becomes the ex-dividend date.

Case: Ex-dividend date for Companies with the Fiscal Year ending on December 31st



In case of companies issuing Stock Dividend, Base-Price of the company's shares will be adjusted on the ex-dividend date to reflect changes (dilution effect) in value of each shares.

■ Calculation method for Base-Price of Ex-Dividend Shares (stock dividend only)

(Closing price of cum dividends × Number of outstanding shares before the dividend) / Number of outstanding shares after the dividend

There is no Base-Price adjustment for cash dividends because the amount of cash dividends will be determined at the shareholder's meetings which are mostly held in March of following year. However, in case of planning on stock dividends, such companies have obligation to disclose the preliminary amount before the end of fiscal year so that KRX can make necessary price adjustments.

B Ex-Rights

Ex-right is a market notification that investors purchasing Ex-right shares will not have the rights to subscribe for upcoming issuance of new shares from the concerned company. Ex-rights will be applied when companies are issuing new shares to existing shareholders for capital increase purpose.

Similar to ex-dividend date, taking into account of the settlement schedule, ex-right date is 1 trading day prior to the Book Closure Date. Therefore, in order to have subscription rights, investors have to purchase the shares at least 2 days prior to the company's Book Closure Date.

Accordingly, Base-Price for ex-rights issues shall be adjusted to reflect changes in value of a share caused by increase in capital and number of outstanding shares. Please note that price will be adjusted only when new shares are issued at discounted price.

■ Calculation of Base-Price for Ex-Rights Issues

{(Closing price of cum rights × Number of outstanding shares before the capital increase) + amount of paid-in capital increase⁵¹⁾} / Number of outstanding shares after the capital increase

(4) Administrative Issues & Liquidation Issues

Any listed company will be designated as an Administrative Issue if concerned

51) Amount of paid-in capital increase shall be "0" when new shares are issued without consideration (with no payment requirement).



company falls under the delisting criteria. Those criteria include deterioration of financial conditions, limited share distribution, lack of liquidity ratio, etc., which the details are described under 「KRX Listing Regulations⁵²⁾」.

KRX designates Administrative Issues as an alert to investors and also to provide a grace period for the company so that it can make necessary efforts to prevent delisting from the market.

A Trading Method for Administrative Issues ([§23 KOSPI](#) / [§28 ER KOSDAQ](#))

In KOSPI market, there is no different trading method for Administrative Issues. However, in KOSDAQ market, periodic (every 30 minutes) Call Auction method will be applied to Administrative Issues during the regular session. This approach in KOSDAQ Market is to prevent irrational trading activities (speculations) and to minimize the volatility of stocks under difficult financial conditions.

It is likely that Members will not allow margin-trading or credit-trading on Administrative issues for risk management purposes.

B Trading Method for Liquidation Issues ([§20, §38 KOSPI](#) / [§23 KOSDAQ](#))

When delisting of a security is determined, it will be given with last trading opportunity in the exchange markets. This liquidation session is limited to 7 trading days.

During the regular session (9:00 ~ 15:00), periodic (every 30 minutes, 13 times a day) Call Auction method will be applied for trading Liquidation Issues. During off-hours session (and including regular session block trading), same trading method will be applied to Liquidation Issues. Regardless of market sessions, Liquidation Issues will not be applied with daily price limitations⁵³⁾.

(5) Investment Warning System

Market Oversight Commission (hereinafter "MOC") runs Investment Warning System⁵⁴⁾ to alert investors of securities having possibility of speculative or illegal

52) [§75 of KOSPI Market Listing Regulation](#) and [§28 of KOSDAQ Market Listing Regulation](#)

53) For block-trading of Liquidation Issues, price range of regular session block trading will be applied accordingly. See III-5 for description on 'Alternative Trading Methods'

54) To enhance the effectiveness of this warning system, on Sep. 3rd 2007, Market Oversight Regulation

trading activities. MOC will make 3 step warnings (Investment-Caution, Investment-Alert, and Investment-Risk) on Stocks, KDRs, and ETFs to prevent further engagement of abusive trading activities and to minimize over-reactive trading behaviors.

A Warning Criteria⁵⁵⁾

- ① **Investment-Caution** : designated when a security is experiencing heavily concentrated trading led by few Member branches or few Trading Accounts, or etc.
- ② **Investment-Alert** : designated when a security meets following criteria

<i>Criteria</i>	<i>In Specific</i>
Short term Price Surge	(Preliminary Warning) when price increases by more than 75% during last 5 days (Warning) Security issues under preliminary warning meets following conditions within next 10 days; • meets above preliminary warning criteria once again; • closing at the highest closing price in last 20 days; and • concerned security's recent 5-day price increase rate is more than 6 times that of KOSPI index (KOSDAQ index in case of KOSDAQ Market)
Mid-to-Long Term Price Surge	(Preliminary Warning) when price increases by more than 150% during last 20 days (Warning) ① Security issues under preliminary warning meets following conditions within next 10 days; • meets preliminary warning criteria for short-term price surge once again; • closing at the highest closing price in last 20 days; and • concerned security's recent 5-day price increase rate is more than 6 times that of KOSPI index (KOSDAQ index in case of KOSDAQ Market) ② Security issues under preliminary warning meets following conditions within next 10 days; • meets preliminary warning criteria for mid-to-long term price surge once again; • closing at the highest closing price in last 20 days; and • concerned security's recent 20-day price increase rate is more than 4 times that of KOSPI index (KOSDAQ index in case of KOSDAQ Market)

has adopted previous abnormal price fluctuations warning system prescribed under Business Regulations.

55) Described in Article 3, 3-3, 3-4 of 'Enforcement Rule on Market Oversight Regulation.'



Criteria	In Specific
Repetition of Investment-Caution Warnings	(Preliminary Warning) when a security has been designated as Investment-Caution for more than 5 times during last 20 days while having price increase of more than 100% during same period. (Warning) Security issues under preliminary warning meets following conditions within next 10 days; <ul style="list-style-type: none">• meets above preliminary warning criteria once again;• closing at the highest closing price in last 20 days; and• concerned security's recent 20-day price increase rate is more than 3 times that of KOSPI index (KOSDAQ index in case of KOSDAQ Market)
Others	(Warning) when lifted from Investment-Risk warning

③ **Investment-Risk** : designated when an Investment-Alert issue meets following criteria

Criteria	In Specific
Short term Price Surge	Having 5 days passed since the designation as an Investment-Alert issue, (Preliminary Warning) when price increases by more than 75% during last 5 days (Warning) Security issues under preliminary warning meets following conditions within next 10 days; <ul style="list-style-type: none">• Meets above preliminary warning criteria once again;• closing at the highest closing price in last 20 days; and• concerned security's recent 5-day price increase rate is more than 6 times that of KOSPI index (KOSDAQ index in case of KOSDAQ Market)
Mid-to-Long Term Price Surge	Having 20 days passed since the designation as an Investment-Alert issue, (Preliminary Warning) when price increases by more than 150% during last 20 days (Warning) ① Security issues under preliminary warning meets following conditions within next 10 days; <ul style="list-style-type: none">• meets preliminary warning criteria for short-term price surge once again;• closing at the highest closing price in last 20 days; and• concerned security's recent 5-day price increase rate is more than 6 times that of KOSPI index (KOSDAQ index in case of KOSDAQ Market) ② Security issues under preliminary warning meets following conditions within next 10 days; <ul style="list-style-type: none">• meets preliminary warning criteria for mid-to-long term price surge once again;• closing at the highest closing price in last 20 days; and• concerned security's recent 20-day price increase rate is more than 4 times that of KOSPI index (KOSDAQ index in case of KOSDAQ Market)

B Regulatory Impacts and Lifting of Warnings

Any securities designated as Investment-Alert or Investment-Risk shall not be eligible for credit transactions⁵⁶⁾ (meaning Members can not provide lending facility for those securities) and Members are required to collect 100% margin when investors are entrusting trading orders on those securities.

In addition, securities having Investment-Risk warning can not be used for substitution securities⁵⁷⁾ and the MOC may also request for Trading Halts when concerned security's closing price rises for 3 consecutive days.

Investment-Alert warnings or Investment-Risk warnings will be lifted when concerned security does not fall under any of short term or mid-to-long term price criteria within 10 days from its designation.

(6) Program Trading Quotations

A Definitions

Program Trading generally refers to a computer-driven trading method. Having diverse investment strategies programmed to a computer system, it will assess real-time market data and spot just the right market condition to instruct series of orders to be routed automatically. These technical methods enable investors to make fast and accurate (minimizing human errors) transactions to meet the intended investment strategies.

For transparent market operation purposes, KRX defines Program Trading as following type of investment strategies (§16 KOSPI / §2 KOSDAQ)

- i. **Index Arbitrage Trading** is defined as a set of trading activity which includes buying (or selling) basket of constituent stocks in KOSPI 200 index (KOSTAR index in case of KOSDAQ Market, hereinafter the same in this section) and selling⁵⁸⁾ (or buying) KOSPI 200 index futures (including synthetic futures⁵⁹⁾,

56) Article 4-30 of 'Regulation on Financial Investment Business'

57) See II-4-(3) for description of 'Substitution Securities'

58) According to the Regulation, set of buying and selling in this case does not have to be in simultaneous matter to be categorized as Program Trading.

59) For the purpose of Program Trading regulation, selling Synthetic Futures means collaboration of selling call option and buying put option and buying Synthetic Futures means collaboration of buying call option and selling put option.



hereinafter same for the purpose of program trading regulation) or options for the purpose of gaining profits by taking advantage of instant price discrepancy between KOSPI 200 constituent stocks and KOSPI 200 futures or options contracts.

- ii. **Non-Arbitrage Trading** is defined as either buying or selling basket of 15 or more constituent stocks in KOSPI index (basket of 10 or more constituent stocks in KOSTAR index in case of KOSDAQ Market) at the same time by the same investor.

B Backgrounds to Program Trading Regulations

Due to its basic nature of trading behavior based on technical and systematical investment strategies, there are concerns that Program Trading may intensify market instability in times of high volatility. For instance, market will be vulnerable to sudden price fluctuations when massive sell or buy orders are placed at the same time by the trading programs which anticipate similar market conditions. In this highly instable environment, Market is unlikely to function well for efficient price discovery of listed securities.

Furthermore, when there are large quantities of arbitrage positions open (unsettled) till the last trading day of relevant futures & options contracts, Market is likely to experience high volatility led by pressure to offset those open positions on the last trading day⁶⁰⁾.

Therefore, Program Trading needs to be more transparent and regulated appropriately to minimize any negative impacts such as sudden price fluctuations.

C Disclosure of Program Trading Quotations (\$130 ER KOSPI / §15 ER KOSDAQ)

(Flagging)

To increase the transparency of Program Trading in the market, Members are required to tag all program quotations (classified into Arbitrage Trading and Non-Arbitrage Trading) before routing them to the Exchange. Aggregated Program Trading information will be disclosed to the public.

(Position Disclosure)

In addition, to provide more transparency on program trading status in the market, the

60) Especially because KRX Derivative market is one of the most heavily traded market in the world (according to the statistics from FIA, Futures Industry Association).

Exchange discloses aggregation data for daily Index-Arbitrage Trading balance (open positions). For this purpose, Members are required to report Index-Arbitrage Trading balance to the Exchange by 17:00 every day.

(Pre-disclosure on Derivatives Expiration dates)

Any market participants who intend to place (or make amendment to existing orders) Program Trading orders during "last 10 minute call-auction session on the days when KOSPI200 Futures or Options expire" (hereinafter "the Expiration Session") are required to pre-disclose the planned orders to the Exchange by no later than 14:45 (which is 5 minutes prior to the commencement of 'the expiration session'). This reporting regime (a.k.a 'Sunshine Rule') is established to prevent potential manipulation of settlement prices for relevant derivatives product and to let investors be aware of potential volatility.

(Post-disclosure on Derivatives Expiration dates)

During the Expiration Session, when there is significant imbalance between pre-disclosed Program buy orders and Program sell orders, market participants will be able to place opposite side (smaller value side) Program-Trading orders without pre-disclosure. These opposite side Program-Trading orders shall be disclosed by 16:00 of the same day.

'Imbalance' will be triggered (and announced by KRX immediately) when nominal value* of Program sell (or buy) orders exceeds the nominal value of Program buy (sell) orders by 75%* and when the gap between nominal values (buy orders and sell orders) is greater than 500 billion KRW* (in case of KOSDAQ Market, triggering level shall be 75% and 5 billion KRW). For this matter, following calculation method will be applied;

- i. **Nominal value** : quantity of pre-disclosed Program Trading orders multiplied by corresponding share prices at 14:45.
- ii. **Triggering value** (500 billion KRW): greater nominal value (whether it be nominal value of buy orders or nominal value of sell orders) subtracted by smaller nominal value.
- iii. **Triggering ratio** (75%): triggering value divided by smaller nominal value.

When the 'imbalance' is triggered by greater buy orders, then market participants may place Program sell orders (and vice versa) during 'the expiration session' even without the pre-disclosure by 14:45.

These post-disclosure Program Trading orders shall be subject to following price



limitations;

- i. buy orders shall not be placed at prices higher than the last transaction price (last price published before entering into the closing price call-auction session); and
- ii. sell orders shall not be placed at prices lower than the last transaction price.

D Temporary Suspension of Program Trading Orders (a.k.a. 'Side-Car')

(§16 KOSPI §20 ER KOSPI / §13 KOSDAQ §14 ER KOSDAQ)

Side-car, which temporally stops the validity of all Program Trading orders, is a market action to lessen the impact of Program Trading when the market is experiencing severe price fluctuations.

(Triggering Threshold) In the KOSPI Market, side-car is triggered when the price of KOSPI200 index Futures⁶¹⁾ deviates by more than 5% from the future's Base-Price for at least 1 minute.

In the KOSDAQ market, side-car is triggered when following 2 price conditions lasts for at least 1 minute;

- i. price of KOSTAR index Futures deviates by more than 6% from its Base-Price; and
- ii. value of KOSTAR index deviates by more than 3% from previous day closing value.

Side-car is triggered only once a day regardless of price increase or price decline.

(Side-car effect) When side-car is triggered due to a price increase, validity of all program bid orders will be suspended for 5 minutes, and validity of all program ask orders will be suspended for 5 minutes when side-car is triggered due to a price decline.

The side-car will be relieved when 5 minutes have elapsed from the triggering point or when it is 40 minutes before the regular-session market closing. In case where Circuit Breaker has been triggered while side-car is in effect, side-car will be relieved when trading resumes from the Circuit Breaker suspension.

61) This price criteria will be based on most liquid futures contract which is usually the nearest month contract.

(7) Short-Selling Regulations

Definitions and Regulations

Short-Selling in the market simply refers to selling of securities that seller does not own. In most securities markets, short-selling is regulated to prevent settlement failures and also to minimize negative impacts (such as intensifying the volatility in times of extreme market conditions) of abusive short-selling in the market.

In Korea's Securities Markets, the FSCMA (§180) defines Short-Selling as;

- i. A sale of listed securities which the seller does not own (naked short-selling); or
- ii. A sale of listed securities with an intention to settle through borrowed securities (covered short-selling).

The FSCMA prohibits naked short-selling but allows covered short-selling which is to be conducted in accordance with relevant provisions of KRX Business Regulations. The Act is also clear on sales transactions that do not have the possibility of settlement-failure so to avoid unnecessary application of short-selling regulations on normal sales transactions. According to the FSCMA, any sales transactions shall not be deemed as Short-Selling when

- i. Selling of purchased securities (within the purchased quantity) before its settlement date;
- ii. Selling of securities that will be acquired for settlement on the settlement date by exercising the rights of convertible bonds, exchangeable bonds, bond with warrants, etc. and
- iii. Otherwise cases⁶²⁾ with no possibility of settlement failure on the settlement date.

In addition, if there are concerns on market conditions that may undermine the market stability, KRX may ban covered short-selling in the market upon approval of FSC.

62) Details of the cases are described under the Enforcement Decree of the ACT.



Regulatory Framework on Short-Selling

	<i>Naked Short-Selling</i>	<i>Covered Short-Selling</i>
FSCMA (\$180)	<p>Prohibited.</p> <p>Does not recognize sales transaction as a short-sell when the settlement is ensured (specific cases described in the Act & its Enforcement Decree)</p>	<p>Allowed.&</p> <p>Covered Short-selling shall be conducted in accordance with procedures stipulated in KRX‘Business Regulations’</p>
KRX Business Regulations (\$17 KOSPI) (\$9-2 KOSDAQ)	<p>Prohibited.</p> <p>Also describes detailed cases of sales transactions which shall not be recognized as short-selling</p>	<ul style="list-style-type: none"> • Double confirmation of short-selling and borrowed securities • Maintain records for at least 3 yrs • Checking availability of deliverable stocks on the settlement date • Up-tick rule • Long-sell Confirmation requirements
Disciplinary Actions	Penalties (sanctions or fines) against Members and investors who have breached the relevant laws & regulations	

B Short-Selling Procedures (\$17 KOSPI / §9-2 KOSDAQ)

A Member receiving sales order from a customer shall

- i. confirm whether it's a short-sell order and whether it's covered with sufficient quantity of borrowed stocks before routing it to Exchange trading system (such confirmation shall be in form of document, telephone, e-mail, or any other electronic communication methods);
- ii. keep and maintain those confirmation information for at least 3 years and provide such information to the Exchange or regulators upon request; and
- iii. reject those short-selling orders which may be in breach of relevant rules & regulations.

(Long-Sell Confirmation) For those investors who have no intention to make short-selling in the market, Members may not conduct double confirmation procedures on sales orders when following conditions are met;

- i. if the Member has received legitimate long-sell confirmation from the customer that he/she will not make any short-selling trades in the market; and
- ii. if the Member has implemented proper screening system to block any short-selling

orders from that particular customer

(Up-tick Rule) All covered short-selling orders must be placed at a price (at least one tick) higher than the last transaction price of the securities being sold. As an exception to this Up-tick Rule, short-selling orders can be placed at the last transaction price if such price is higher than its previous price. This exception is not applied when opening price has not been determined or when opening price is same as the security's previous price.

Case : Exceptional case when short-selling order may be placed at the last transaction price

<i>Transaction Prices</i>	<i>①</i> 10,000	⇒	<i>②</i> 9,980	⇒	<i>③</i> 9,980	⇒	<i>④</i> 9,990	⇒	<i>⑤</i> 9,990
	—		X		X		O		O

☞ Market participants may place short-selling orders at 9,990_{KRW} immediately after the effective transactions of ④ or ⑤

In addition, Up-tick Rule will be exempt on following cases

- Short-selling for the purpose of Index Arbirtage Trading;
- Short-selling of stocks for the purpose of Arbirtage Trading between stocks and relevant futures & options product;
- Short-selling of ETFs;
- Short-selling of stocks for the purpose of Arbitrage Trading between basket of stocks and ETFs;
- Short-selling of stocks for the purpose of Arbitrage Trading between DRs and stocks;
- Short-selling by registered Liquidity Provider for the purpose of providing liquidity in stocks;
- Short-selling of stocks by registered ELW Liquidity Provider for the purpose of hedging its positions;
- Short-selling of stocks by registered ETF Liquidity Provider for the purpose of hedging its positions; or
- Short-selling of stocks by registered Market Maker in the Derivatives Market for the purpose of hedging its positions



- * above orders need to be flagged to make it eligible for uptick rule exemption. Also, uptick rule is not applied to A-blox, K-blox, and off-hours trading (except for off-hours call auction session).



Regulations on Post Short-Selling (§18-2 KOSPI / §9-4 KOSDAQ)

On the settlement date, Members are required to verify those customers who lack in settlement balance⁶³⁾ (meaning customer's inventory of securities is less than the amount of securities needed for the settlement) and receive proof records (including Securities Borrowing and Lending contracts, etc.) from those customers to confirm whether he/she has breached the Short-Selling Regulations. Members shall keep and maintain these records for at least 3 years.

If confirmed that the customer has breached Short-Selling Regulations for 2 days within 6 months period or when transaction amount relevant to the regulation breach is more than 1 bil KRW, all Members must receive document of proof (SBL contracts or Lender's written confirmation) before receiving any short-selling orders from that particular customer for next 30 days.

(8) Correction of Member's Transaction Errors (§28 KOSPI / §27 KOSDAQ)

When Members make transaction errors during the process of handling customer orders, then such error shall be corrected to its original intentions upon request.

(Definitions) Under the KRX Business Regulations, Member's Transaction Error is described as an error occurred by submitting quotations that are different from customer's original intention (such as wrong securities, quantity, price, or bid/ask classification). And, because it is a 'Transaction Error,' wrongly input quotations which have not been executed or quotations that have never been submitted shall not be subject to correction by the Exchange.

(Method of Correction) In case of Member's error occurred by wrong inputs on name of securities, quantity, price, or bid/ask classification, the concerned Member will assume (transfer) customer's balance (position) to its own proprietary account. In case of Member's error occurred by wrongly classifying customer account from proprietary

63) In this case, Members must collect 100% margin from the customer on every trades for next 90 days. See II-4-(3) for description on 'Special Margin Collection Rule'

account or vice versa, correction shall be made by transferring the balance to the originally intended account.

(Procedure of Correction) When transaction error occurs, Members may submit an application to the Exchange for correction (through electronic network) by 15:00 of the day following the error. Upon receiving of an application, KRX will confirm the correction and reflect the change in the daily settlement process.



4. Special Cases of Trade Executions

(1) Determination of the first Base-Price of newly listed and re-listed Securities (§30 ER KOSPI / Annex 1 of ER KOSDAQ)

Security's Base-Price⁶⁴⁾ is used as basis to setting daily price limitation at KRX Markets. Thus, it is important to have appropriate Base-Price or otherwise it may impair efficiency of price discovery by setting inappropriate price range.

In normal cases, Base-Price will be the closing price of previous trading day. However, when there is no previous trading day or when there is a corporate event to cause significant impact on Security's price, new Base-Price will be determined by market participants through Call Auction method (with quotations received before the market open)⁶⁵⁾. In specific, such Base-Price determination method will be applied to;

- i. First trading day of newly listed securities;
- ii. Re-listing day after corporate spin-off (applied to both parent company & spin-out company); and
- iii. Re-listing day after capital reduction (also known as share cancellation).

When finding the first Base-Price of above cases, KRX will limit price range for quotations to be received during Opening Call Auction session (08:00 ~ 09:00). This measure is to prevent any abnormal price discovery led by market abusive quotations (or orders). In specific, KRX will set quotation price limits based on reference price of the security being listed (shown in the table below).

64) See III-1-(8) for description on 'Base-price'

65) See III-2-(2)-A for description on 'Single Price Call Auction Method'



Quotations price limits for determining new Base-Price in the market

Cases	Reference price	Quotation Price Limits
New listing of common stocks	IPO price	90%~200%
New listing of preferred stocks	IPO price	50%~200%
Re-listing after corporate spin-off	(Pre spin-off market cap) / (% of company's divided NAV)	50%~200%
Re-listing after capital reduction	Theoretical price reflecting capital reduction ratio	50%~150%

* Reference price and Quotation Price Limits will be calculated by KRX and the information will be disclosed to the public 1 day prior to the listing day. There are event-specific cases where different Quotation Price Limits will be applied.

Once the Base-Price has been determined, security in subject will be traded in accordance with Continuous Auction method within upper and lower price limitations set from the newly determined Base-Price.

There are exceptions to newly listed securities as following;

- i. For a security transferring from KOSDAQ Market to KOSPI Market, Base-Price of first trading day at KOSPI Market will be the final closing price at KOSDAQ Market (or vice versa).
- ii. For Mutual Funds, REITs, and Ship Investment Funds, Base-Price of the first trading day will be the IPO price before listing. In case where Mutual Fund's most recently published NAV⁶⁶⁾ (net asset value) is higher than the IPO price, then such NAV per share will be the Base-Price of the security's first trading day.
- iii. For ETFs and Beneficiary Certificates, Base-Price of the first trading day will be most recently published NAV per share.

66) According to the FSCMA, managers of Mutual Funds, ETFs, and Trust Funds (Beneficiary Certificates) are required to publish (through KOFIA) per share NAV of its funds on a daily basis.

(2) Trading of Treasury Stocks

A Acquisition of Treasury Stocks in Korea

Treasury Stocks refer to stocks held by the company that issued the stock. In Korea, the Commercial Act limits companies' acquisition of treasury stocks to very exceptional purposes such as retiring of stocks, merger, transfer of business, exercise of rights, handling of fractional (odd-lot) shares, and preparing for stock buyback claims.

However, the FSCMA generally allows listed companies to acquire treasury stocks without having restrictions on acquiring purposes. Nonetheless, the FSCMA regulates source of purchasing fund and purchasing method to prevent excessive holding of treasury stocks (§165-2, §165-3).

Through the purchase of treasury stocks, listed companies can reduce outstanding (free-float) shares and, thus, enhance shareholders' expectation on higher dividend. Also, companies would acquire treasury stocks to use them as a protection measure against hostile takeovers or as an employee benefit plan (stock options).

B Regulations on Purchasing/Sales of Treasury Stocks

Principles of the Regulation

- *Treasury Stocks shall be purchased only through the Exchange market or by the means of tender offer. This is to prevent purchasing treasury stocks from affiliated persons and to ensure participation of common shareholders in this selling opportunity.*
- *Funding sources for purchasing of treasury stocks shall be strictly limited to preclude ineligible companies from taking advantage of this system for inappropriate purposes.*
- *Purchasing process shall be transparent under comprehensive reporting and disclosure regime.*

① Currently, there are **no limitations on purchasing quantity** (i.e. theoretically, a listed company can re-purchase all outstanding shares, provided that it has sufficient funds in source)⁶⁷⁾.

② **Funding Source** (§5-11 of Regulation on Securities Issuance and Disclosure): total

⁶⁷⁾ Limitation on purchasing quantity of treasury stocks has been abolished on May 25th 1998. Prior to this deregulation, purchasing of treasury stock was limited to 1/3 of total shares outstanding.



amount of fund that Company can use for purchasing treasury stocks is limited to; (maximum dividend amount pursuant to the Commercial Act and based on financial statement of previous fiscal year) - (aggregated purchase amount of treasury stocks, including treasury stocks purchased through trust contracts, since the end of previous fiscal year) + (aggregated sales amount of treasury stocks, including treasury stocks sold through trust contracts, since the end of previous fiscal year) - (total dividend amount determined at the general shareholders' meeting)

In case of purchasing treasury stocks for profit retirement purpose, total amount of the fund is limited to; (Amount of profit available for dividend pursuant to the Commercial Act and based on financial statement of previous fiscal year) - (revaluation reserve) - (corporate development reserve) - (corporate rationalization reserve) - (corporate structure improvement reserve) - (amount of trust contracts for purchasing treasury stocks)

③ **Purchasing Method** (§165-2 of the FSCMA): treasury stocks shall be purchased only through the Exchange market or by the means of tender offer. In addition, treasury stocks can be purchased indirectly through a trust contract.

④ **Purchasing (Sales) procedures:**

- i. When listed company's BOD has decided on purchasing/sales (including by the means of trust contracts) of treasury stocks, the company is required to make the disclosure on that day and provide the report on purchasing/sales plan to the FSC by the day following the decision (§161① of the FSCMA).
- ii. The company shall start the purchasing or sales of treasury stocks on the day following the disclosure of BOD decisions, but has to complete the purchase or sales within 3 months period. (§176-2 of Enforcement Decree of the FSCMA).
- iii. When purchasing/sales of treasury stocks have been complete or when purchasing/sales period has been expired, the company shall provide FSC with the report on the results of purchasing/sales of treasury stocks within 5 days.

C Procedures of Trading Treasury Stocks at KRX Stock Markets

Trading of Treasury Stocks in the Exchange market needs to be regulated to minimize the impact on market prices and to avoid the possibility of unfair trading such as misuse of insider information.

① Method of Trading Treasury Stocks (§39 KOSPI / §10 KOSDAQ)

- i. The listed company must first open an independent account for trading treasury stocks through any Member firms. No other securities, except for treasury stocks, can be traded through this special account. (§79 KOSPI / 35, §36 KOSDAQ)
- ii. Such Member, receiving trading orders on treasury stocks, must submit an 「Application for Trading Treasury Stocks」 to KRX 1 day prior to the planned trading day and within the period from the market close (15:00) to 18:00.
- iii. On the trading day (the day following the submission of the application), new orders or amendment on existing orders may be submitted to KRX during the regular-trading session, but new orders or amendment of orders can not be placed during last 30 minutes of the regular session.
- iv. Quotations to trade treasury stock shall be within following price range;

	<i>Bid Quotations</i>	<i>Ask Quotations</i>
Submitted during 08:00~09:00	closing price of previous day ~ +5% of the closing price	closing price of previous day ~ 2 ticks less than the closing price
Submitted during regular trading session (09:00~14:30)	<ul style="list-style-type: none"> • Ceiling:Max(highest price of the day, best bid price) • Floor:{Max(the last transaction price, best bid price)}-10ticks 	<ul style="list-style-type: none"> • Ceiling:10ticks+Floorprice(below) • Floor:Min(the last transaction price, best ask price)

* For securities which had no transactions (no market price) before the submission of quotations to trade treasury stocks, security's Base-Price shall be construed as "the highest market price of the day" or "the last transaction price."

- v. Cancellation of orders will not be accepted and only Limit Orders will be received for trading of treasury stocks.
- vi. Maximum quantity of treasury stocks that can be traded in a day shall be less than 1% of total number of outstanding shares and higher quantity between;
 - 10 % of planned purchasing/sales quantity in the report; and
 - 25% of the stock's average daily trading volume in recent 1 month period

② Trading of Treasury Stocks through a Trust Contract

- i. In the past, trading of treasury stocks by entering into a trust contract was not regulated, but since December 1st 2003, same regulations relevant to direct purchasing/sales of treasury stocks have been applied to the Treasury Stock Trusts. However, considering the nature of Trusts, daily limitations on trading



quantity is extended to 1% of total number of shares outstanding.

- ii. Also, to prevent frequent purchasing/sales of treasury stocks using trust contracts, sale of treasury stock is prohibited when 1 month period has not been passed since the purchase (based on final purchasing day) and vice versa to purchasing of treasury stocks. (§106⑤ of the FSCMA)

③ Trading of Treasury Stocks through Off-Hours Block Trading Facility (§35⑤ KOSPI / §21 KOSDAQ)

- i. Sales of treasury stocks can also be conducted through KRX off-hours block trading facility. However, in this case, price range for trading is limited to 5% of the day's closing price (for block-trading in pre-hours session, closing price of the previous day shall be applied).
- ii. Purchasing of treasury stocks through KRX off-hours block trading facility is only allowed for cases where stocks are purchased under the government instruction/recommendation and FSC approval. In these cases, same price range as off-hours block trading session will be applied. However, no price range (and no daily price limitations) shall be applied in cases of purchasing treasury stocks from the government or from the Korea Deposit Insurance Corporation under the FSC approval.
- iii. Although daily quantity limitation is not applied to trading of treasury stocks through KRX off-hours block trading facility, requirement on submitting an application 1 day prior to the trading day does remain the same.

④ Exceptions to Trading Treasury Stocks (§40 KOSPI / §11 KOSDAQ)

- i. KRX may impose temporary exceptions for trading treasury stock, upon FSC approval, when deemed necessary to maintain orderly market operation in times of extreme market conditions.
- ii. When this exception is imposed⁶⁸⁾, daily purchasing quantity limitation will be extended to entire purchasing quantity planned in the report.

⁶⁸⁾ Previously, this exception was imposed on following cases : from Sep. 21st 2001 to Mar. 20th 2002 (market impacts after the 9/11 terror in the U.S.), and from Oct. 1st 2008 to Mar. 31st 2009 (global financial crisis).



5. Alternative Trading Methods

(1) Regular-session Block Trading ([§31, §32 KOSPI / §19-2 KOSDAQ](#))

Block trading (including basket trading⁶⁹⁾, hereinafter the same) is an alternative trading method provided by the Exchange to execute pair of bid and ask orders on individual security or basket of securities based on conditions (price, quantity) negotiated between 2 or more parties.

In response to growing demand on large-lot trading in the market, KRX has introduced⁷⁰⁾ Market regular-session block trading to supplement existing off-hours block trading facility. This new system not only enhances the convenience of market participants, but also, enables KRX to conduct stable market operation by separating large-lot orders from normal auction orders.

Block trading request is submitted through internet based 'K-BloX' system provided by KRX. Once such request is accepted by KRX, relevant Members will place corresponding quotations to KRX system which will then match those block trading quotations separately from other orders on the order-book.

■ Regular-session Block Trading Parameters

Eligible Securities	<ul style="list-style-type: none"> • Equities, DRs, and ETFs * excluding those securities with no transactions in the regular-session
Trading Hours	• 09:00 ~ 15:00
Price Range	• Within the highest and the lowest transaction prices of the day, established before placing the order
Order Types	<ul style="list-style-type: none"> • Pair of bid order and ask order with matching conditions (e.g. price and quantity)
Minimum Order Size	<ul style="list-style-type: none"> • Block trading: <ul style="list-style-type: none"> (1) KOSPI Market: at least 500 times the trading unit or nominal value of 100 million <small>KRW</small>. (2) KOSDAQ Market: nominal value of at least 100 million <small>KRW</small> • Basket trading: basket of at least 5 securities and nominal value of 1 billion <small>KRW</small>
Execution Price	• At a price pre-determined by the buyer and the seller
Order Condition	• Amendment and Cancellation of orders are allowed
Trading Unit	• 1 share
Member Condition	• At least one side of either bid or ask quotations must be placed through a single member

69) *KOSDAQ Market does not offer Basket Trading Facility*

70) *Introduced in Mar. 2005 for the KOSPI Market, and in Apr. 2006 for the KOSDAQ*



K-Blox

- *K-Blox is an internet based network system that provides functions such as counter-party searching, trade negotiations, and trade application which are necessary for conducting block/basket trading in the market. It runs from 07:00 to 19:00 and it is accessible by Members with given ID and password.*
- *K-Blox accommodates following types of trade;*
 - (1) **Crossing** : single Member submits both bid and ask quotations on behalf of its customers
 - (2) **Counterparty Trade** : Members on each side of the trade submit applications by designating the counterparty (Member) and entering in pre-determined trade conditions
 - (3) **Open Trade** : A Member (or its customer) may search for counterparties by exposing its trading intentions (issue, price, quantity) on the board. Further negotiations on the conditions shall be made with potential counterparties who have shown interest in the trade

(2) Off-hours Trading

KRX runs off-hours trading session to provide investors with extra trading opportunities even before and after the regular session. This off-hours session is divided into closing price trading session, block/basket trading session, and periodic call auction session. Please note that basket trading facility is only available for KOSPI Market.

Trading Hours of Off-hours Sessions

	<i>Trading Hours</i>	<i>Quotation Receiving Hours</i>	<i>Trading Method</i>
Pre-hours Session	07:30~08:30	07:30~08:30	closing price trading
	07:30~09:00	07:30~09:00	block trading; basket trading
After-hours Session	15:10~15:30	15:00~15:30	closing price trading
	15:30~18:00	15:30~18:00	Periodic call auction
	15:10~18:00	15:00~18:00	block trading; basket trading

A Off-hours Closing Price Trading (§34 KOSPI / §20 KOSDAQ)

In this session, securities are traded at closing price of the regular session. KRX will execute, based on principle of time priority, matching quantity of those bid/ask quotations (received during this session) at closing price of the respective security.

Off-hours Closing Price Trading Parameters

Eligible Securities	<ul style="list-style-type: none"> • Equities, DRs, and ETFs * excluding those securities with no transactions in the regular-session
Execution Price	<ul style="list-style-type: none"> • Closing price of the day (closing price of previous day in case of pre-hours session)
Execution Method	<ul style="list-style-type: none"> • Bid and ask quotations are matched according to the time priority
Order Conditions	<ul style="list-style-type: none"> • Cancellation of orders are allowed
Trading Unit	<ul style="list-style-type: none"> • 1 share

B Off-hours Periodic Call Auction Trading (§34-2 KOSPI / §21-2 KOSDAQ)

In this session, KRX receives quotations and executes them through call auction method at every 30-minutes interval point. It was introduced on May 30th 2005 to accommodate the functions of ECN market which was closed down due to lack of liquidity.

Off-hours Periodic Call Auction Trading Parameters

Eligible Securities	<ul style="list-style-type: none"> • Equities, DRs, and ETFs * excluding those securities with no transactions in the regular-session
Price Range	<ul style="list-style-type: none"> • Within ±5% of closing price and within Daily Price Limitations
Execution Method	<ul style="list-style-type: none"> • Call auction at every 30-minutes interval point with quotations received from 15:30 to 18:00 (total of 5 executions)
Order Conditions	<ul style="list-style-type: none"> • Amendment and Cancellation of orders are allowed
Trading Unit	<ul style="list-style-type: none"> • 1 share



Off-hours Block/Basket Trading ($\$35\sim36$ KOSPI / $\$21$ KOSDAQ)

Block/basket trading facility is also available during off-hours session. Trading method is same as that of regular session block/basket trading except for trading hours and the price range.

Off-hours Block/basket Trading Parameters

Eligible Securities	<ul style="list-style-type: none"> Equities, DRs, and ETFs * excluding those securities with no transactions in the regular-session
Trading Hours	<ul style="list-style-type: none"> 15:10 ~ 18:00 and 07:30 ~ 09:00
Price Range	<ul style="list-style-type: none"> Within daily price limitations
Order Types	<ul style="list-style-type: none"> Pair of bid order and ask order with matching conditions (e.g. price and quantity)
Minimum Order Size	<ul style="list-style-type: none"> Block trading: <ul style="list-style-type: none"> (1) KOSPI Market: at least 500 times the trading unit or nominal value of 100 million KRW. (2) KOSDAQ Market: nominal value of at least 100 million KRW Basket trading: basket of at least 5 issues and nominal value of 1 billion KRW
Execution Price	<ul style="list-style-type: none"> At a price pre-determined by the buyer and the seller
Order Condition	<ul style="list-style-type: none"> Amendment and Cancellation of orders are allowed
Trading Unit	<ul style="list-style-type: none"> 1 share
Member Condition	<ul style="list-style-type: none"> At least one side of either bid or ask quotations must be placed through a single member

(3) A-Blox Trading

On 29th November 2010, KRX launched new type of block trading facility called 'Auction-based Block Trading' (hereinafter "A-Blox") for both KOSPI & KOSDAQ Markets. This new facility is intended to accommodate large lot trading orders by offering key functions such as anonymous liquidity pool and VWAP transaction mechanism.

'A-Blox' orders will be handled separately from regular Auction and Block-Trading (K-Blox) pool. These 'A-Blox' orders will only be matched amongst each other without

orders being displayed to the public. Orders will be matched on a continuous basis under the time priority principle and trades will be settled at the day's Volume Weighted Average Price (VWAP). Details of A-Blox functions are shown in the table below.

A-Blox Trading Parameters

Eligible Securities	<ul style="list-style-type: none"> • Equities, DRs, and ETFs * excluding Administrative Issues and Liquidation Issues
Trading Hours	<ul style="list-style-type: none"> • 07:30 ~ 08:30 and 09:00 ~ 14:30
Order Placements	<ul style="list-style-type: none"> • place an A-Blox order with indication on the security, buy/sell, and quantity (and not the price)
Trade Execution	<ul style="list-style-type: none"> • trades will be executed immediately when there are both buy order and sell order on the security
Transaction Price	<ul style="list-style-type: none"> • All-day VWAP will be applied to transactions occurred at off-hour session and match-point VWAP will be applied to transactions occurred at regular session. (1) All-day VWAP = (total transaction value of the regular session) / (total trading volume of the regular session) (2) Match-point VWAP = (total transaction value from the execution time till the market close) / (total trading volume from the execution time till the market close)
Display	<ul style="list-style-type: none"> • A-Blox quotations will not be displayed during trading hours yet presence of A-Blox quotations will be displayed. • Trade execution information will only be provided to the respective buyer and the seller • A-Blox trading volume on each security issues will be disclosed after the day's market close.
Minimum Order Size	<ul style="list-style-type: none"> • KOSPI: nominal value of 500 million <small>KRW</small> • KOSDAQ: nominal value of 200 million <small>KRW</small>
Trading Unit	<ul style="list-style-type: none"> • KOSPI: 100 shares • KOSDAQ: 1 share
Validity of Orders	<ul style="list-style-type: none"> • orders placed at off-hours session will not be valid in regular session and vice versa



6. Liquidity Providers

(1) Basic Concept

Liquidity Providers (hereinafter "LPs") have obligation to place bid and ask quotations to increase the liquidity in certain securities. In most cases, securities with lack of liquidity experience unstable price discovery and incur higher transaction cost and



higher risk for investors. Therefore, KRX introduced LP system⁷¹⁾ to provide additional trading activity on those low-liquidity securities.

When a Member firm enters into an 「LP Agreement」 with a listed company who's shares are experiencing lack of liquidity, the Member will be obliged to place liquidity providing quotations on the security and, in return, the listed company will compensate the Member for providing such services.

■ LP Structure



(2) Rules and Regulations on LPs (§20-2 ~ §20-6 KOSPI / §12-2 ~ §12-6 KOSDAQ)

A Qualifications of the LP

To be qualified for the LP, securities company need;

- i. to have KRX Clearing Membership and a license for Investment Trading Business⁷²⁾;
- ii. to appoint a person (staff) responsible for the LP service; and
- iii. to have passed at least 1 year since its effect when;
 - it received the lowest grade for last 3 consecutive times in quarterly LP performance assessment; or
 - it was imposed of significant sanctions (such as business suspension or criminal penalty) for breaching relevant laws or regulations.

B Obligations of the LP

LPs are obliged to pursue required services under respective LP Agreements. And these service conditions shall be determined by the LP and the issuing company provided that the Agreement includes following conditions at minimum.

71) Introduced in Jan. 2006 for KOSPI Market and in Jan. 2008 for KOSDAQ Market. LP services are available for ETFs and ELWs as well.

72) According to the FSCMA, 'Investment Trading Business' refers to proprietary trading capability thus it is different from 'Investment Brokerage Business.'

- i. LP quotation obligation: When the best bid and best ask spread exceeds specified percentage level stipulated in the Agreement (within 3% in the KOSPI Market and within 2% in the KOSDAQ Market), LP is obliged to submit, within 5 minutes, both bid and ask quotations that can reduce the spread to the specified level.
- ii. Minimum Size: LP quotations shall be at least 5 times the trading unit (10 times in case of KOSDAQ Market).

LPs shall be exempted from above obligations when;

- Best bid/ask spread is less than the specified percentage level stipulated in the Agreement;
- there is no available tick size that can reduce the current spread;
- quotation receiving hours for call auction is in effect and it is within 5 minutes after the end of that quotation receiving hours;
- specified in the Agreement that LP's obligation will be exempt when LP's trading volume exceeds certain level;
- specified in the Agreement that LP will be exempt from bid quotation obligation when LP's holding position of the company's shares exceeds certain level; or
- specified in the Agreement that LP will be exempt from ask quotation obligation when LP's inventory of shares are less than minimum quotation size.

C Method of Placing LP Quotations

LP quotations shall be submitted only through independent LP account. When LP's obligation comes into effect, such LP must place either bid or ask quotations and then immediately place the counter side quotation. Following price limits and quantity limits will be applied to LP quotations;

Price Limits and Quantity Limits of LP Quotations

		<i>For Bid Quotation</i>	<i>For Ask Quotation</i>
Price Limits	Ceiling	Best Ask Quotation Price**	Max {(best bid price ×(1+spread ratio)), best ask price}
	Floor	Min {(best ask price × (1–spread ratio*)), best bid price}	Best Bid Quotation Price**
Quantity Limits	In Principle	Minimum size determined under LP Agreement, which shall be greater than; <ul style="list-style-type: none"> • KOSPI: 5 × Trading Unit • KOSDAQ: 10 × Trading Unit 	
	Exceptions	When submitting at the counter side best quotation price, quotation size shall be greater than the minimum size and less than quantity of counter side best quotations	

* spread ratio refer to LP quotation obligation ratio stipulated in the LP Agreement

** LP can not place a quotation at counter side best quotation price if there are any other LP quotations at counter side best quotation price.



KRX made the rule change on May 30th 2011 to allow LPs to make transactions against existing quotations. Previously LP quotation price was limited to 1 tick higher (or less) than counter side best quotation to limit LP's transaction against existing quotations.

Case: LP places Ask Quotation first

* assuming minimum spread ratio of 3%

Ask	Price	Bid	Ask	Price	Bid
100	10,450	100	100 (LP Quotation)	10,450	
	10,400			10,400	
	10,350			10,350	
	10,300			10,300	
	10,250			10,250	
	10,200			10,200	
	10,150			10,150	
	10,100			10,100	
	10,050			10,050	
	10,000			10,000	
	~			~	
	9,900			9,900	
⇒					100

- ☞ Best ask quotation is at 10,400_{KRW} and best bid quotation is at 10,000_{KRW}, thus the spread ratio exceeds 3% and LP's obligation comes into effect.
- ☞ LP can place the first ask quotation at any prices ranging from 10,400_{KRW} (the best ask price) to 10,000_{KRW}

- ☞ If LP places an ask quotation at 10,200_{KRW}, counter (bid) quotation shall be placed at any prices ranging from 10,150_{KRW} (LP's ask quotation - 1 tick) to 9,900_{KRW} (within 3% range of the best ask price)

D Supervision on LPs

KRX conducts regular monitoring of LP activities to ensure fair trading practices in the market.

KRX also conducts quarterly performance assessment of LPs on aspects such as contribution to spread improvement, fulfillment of LP obligations, and timely placement of LP quotations. Those LPs given with the lowest grade for 3 consecutive quarters shall be suspended from LP business for at least 1 year.

When entering into a new LP Agreement or when having important changes to the

Agreement, the LP shall inform such matters to KRX within 3 days. Changes in staff responsible for LP services or changes in exemptions to LP obligations shall be also notified to KRX.

Different Conditions Applied to ETF and ELW LPs

In case of ETF LPs;

- **LP qualification** : an Authorized Participant which has KRX Clearing Membership and a license for Investment Trading Business.
- **Minimum spread ratio** : 2% for ETFs tracking domestic index and 5% for ETFs tracking overseas index (in KOSDAQ Market, minimum spread ratio shall be within 10 times the tick size).
- **Minimum LP quotation size** : for KOSPI Market, 100 times the trading unit; and for KOSDAQ Market, 1,000 times the trading unit.

In case of ELW LPs;

- **LP qualification** : a securities company which has KRX Clearing Membership and a license for Investment Trading Business on securities & OTC derivatives.
- **Minimum spread ratio** : within the percentage level reported by the issuer.
- **Minimum LP quotation size** : for ask quotations, 10 times the trading unit; and for bid quotations, 10 times the trading unit with minimum value of 5,000_{KRW}

Introduction to Trading at KRX Stock Markets



IV. Clearing & Settlement

- 1. Concept of Clearing and Settlement
 - 2. Clearing & Settlement Process
 - 3. Risk Management
 - 4. Handling of Settlement Failures
- 



1. Concept of Clearing and Settlement

(1) Introduction

Every trade in securities markets will be officially complete when settlements between investors and respective securities companies (Clearing Members) and settlements between Exchange and its clearing members are complete. Since very large number of participants trade financial securities continuously and repetitively in securities markets, it is important to ensure reliability and efficiency of daily settlement process. On this background, KRX adopts diverse systems and infrastructures to provide robust clearing & settlement functions.

In basic, KRX listed securities are settled on T+2 (2 business days after the trading day) while Government Bonds are settled on T+1 and Retail Bonds & REPO Bonds on the trading day (T).

(2) Clearing



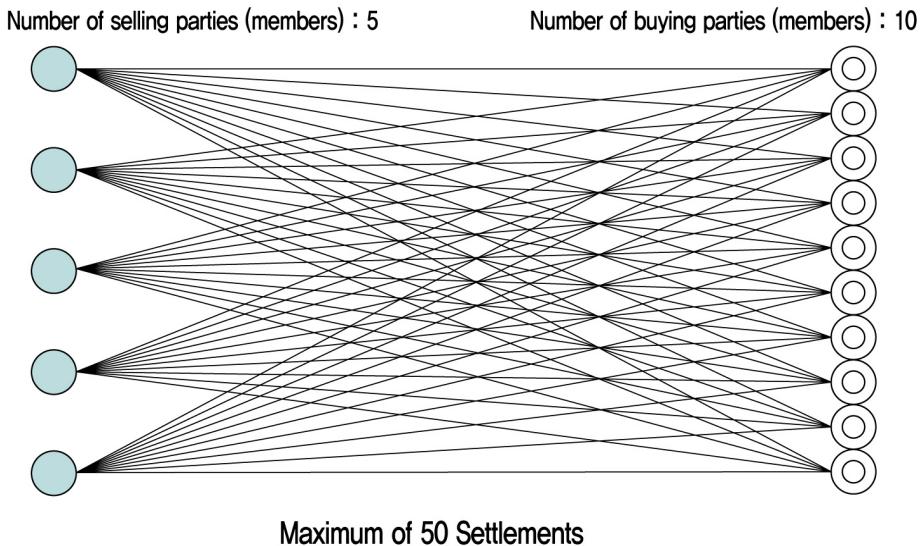
Concept

Clearing refers to series of processes that Central Counter Party (CCP), which assumes rights and liabilities of Clearing Members to become legal counter parties to both sellers and buyers (clearing members) in the market, performs to confirm daily settlement obligations. CCP will minimize the settlement obligations through netting process and guarantee the necessary payment/delivery until it's complete.

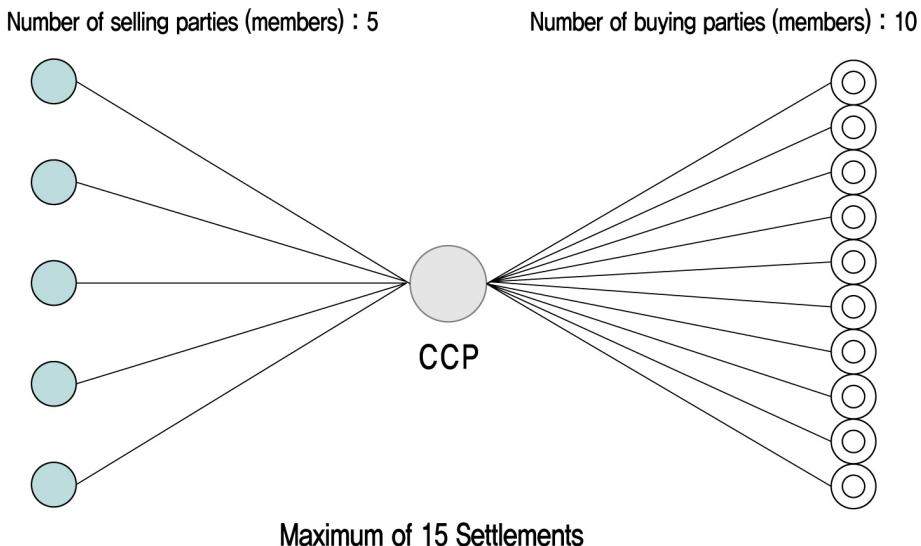
Accordingly, if any clearing member fails to settle a trade, CCP would conduct settlement failure process (such as making necessary actions on concerned clearing member or use of guarantee funds) in accordance with relevant laws and regulations. Therefore, CCP functions to enhance efficiency and reliability of settlement process.



■ Settlement without the CCP direct settlement between clearing member



■ Settlement with the CCP indirect settlement between clearing members



B CCP in Korean Securities Markets

According to the FSCMA (§378), KRX, as a clearing institution in Korean Securities Markets, shall perform transaction confirmation, assuming of member's settlement liabilities, netting of settlement obligations, confirmation of settlement obligations

(payment amounts and deliverable securities), guaranteeing of settlements, handling of settlement failures, and instruction of settlement obligations.

In addition, the FSCMA states that, in order for KRX to perform the role of CCP, KRX shall;

- i. specify the methods and other matters relevant to settlement process on its Business Regulations (§393);
- ii. require clearing members to contribute in Joint Compensation Fund⁷³⁾ (§394);
- iii. appropriate Members' margin and fiduciary deposits to cover liabilities in cases of settlement failures (§397);
- iv. be responsible for covering the losses incurred by member's settlement failures (§399); and
- v. have priority over other creditors of the claims on Member's assets when covering the losses incurred by the Member's settlement failures (§400)

KRX assumes Member's settlement liabilities according to KRX Membership Regulations (§21), KOSPI Market Business Regulations (§73), and KOSDAQ Market Business Regulations (§29).

(3) Settlement

Settlement, which is the final process of a transaction, refers to cash payments and delivery of securities between CCP and Clearing Members based on settlement obligations confirmed through the clearing process.

In KRX Markets, delivery of securities is carried out by the method of book-entry transfer at KSD (Korean Securities Depository) and cash payments are carried out through settlement banks (Bank of Korea or commercial banks designated by KRX).

(4) Benefits of clearing & settlement through CCP

Minimizing counterparty settlement risk : CCP guarantees the settlement and minimizes total settlement amounts through netting process.

73) *The Fund is used to compensate losses incurred by covering settlement failure of members. Current size of the fund is 200 billion_{KRW} which is contributed by Clearing Members' on pro rata basis. Each member's level of contribution is determined at the end of every quarter based on member's market share.*



Facilitating reliable transactions : CCP ensures anonymity of market participants and enables them to make direct transactions against reliable counter-party.

Minimizing systemic risk : when Member's settlement failure occurs, CCP prevents further settlement delays and failures by immediately supplying necessary liquidity in the market. Korea's Bankruptcy ACT also ensures CCP's priority on liability claims when KRX clearing member goes bankrupt.

Enhancing Member's credit : Members may take advantage of '0' counterparty risk in the Derivatives Market.

2. Clearing & Settlement Process

① Confirmation of Transactions (§72-2 KOSPI / §28-2 KOSDAQ)

After the execution of any trade, KRX confirms the condition of transaction through its electronic trading system (Locked-in Trade). In this process, KRX separates KSFC financed transactions⁷⁴⁾ from other transactions and reflects changes made by correction of trading errors.

② Assuming Settlement Liabilities (§21 Membership Regulations / §73 KOSPI / §29 KOSDAQ)

Based on confirmed transactions, KRX assumes all clearing member's settlement liabilities and, thus, all clearing members will only have the liabilities to KRX and not to other clearing members.

Non-clearing member's settlement shall be carried out by the designated clearing member who has entered into a 「Settlement Entrustment Agreement」 pursuant to KRX Membership Regulation(§22). In this case, the clearing member and the non-clearing member will mutually assume each other's rights and liabilities relevant to the settlement.

③ Netting and Determination of Settlement Payments/Deliveries (§74 KOSPI / §30 KOSDAQ).

Amount of securities to be delivered for settlement is determined by netting (between number of shares sold and number of shares purchased) per security and

74) KSFC financed transactions refer to trades that are to be settled by financial loans provided by Korea Securities Finance Corporation (KSFC) in accordance with article 326 of the FSCMA.

per Clearing Member. Payment amount is determined by netting purchasing value and sales value per Clearing Member.

It should be noted that settlement payment is determined by netting concerned Member's total sales value and total purchasing value of both KOSPI Market and KOSDAQ Market.

④ Notification of Settlement Obligations (§75 KOSPI / §31 KOSDAQ)

KRX notifies the final settlement obligations (deliverable payments/positions and receivable payments/positions) to relevant Clearing Members and KSD.

⑤ Fulfillment of Settlements (§75-2 KOSPI / §31-2 KOSDAQ)

Clearing Members shall make required payments for purchased securities and required delivery of sold securities to KRX at any time during 09:00~16:00⁷⁵⁾.

Once all payments are received, KRX will make its payment of cash and delivery of purchased securities to clearing members who have receivable payments/positions (Delivery vs. Payment).

This settlement process is performed through book-entry transfer between KRX Settlement Accounts and Clearing Members' settlement accounts. Securities Settlement Account (for transfer of securities) and Cash Settlement Account(for cash payments) are established by KSD on behalf of KRX. Although these Settlement Accounts are operated by KSD, KRX is the legal beneficiary to these Accounts and thus any transfer of securities and cash through these settlement accounts will have the same legal validity as if transferring them through KRX accounts. These settlement accounts are established for settlement purposes only.

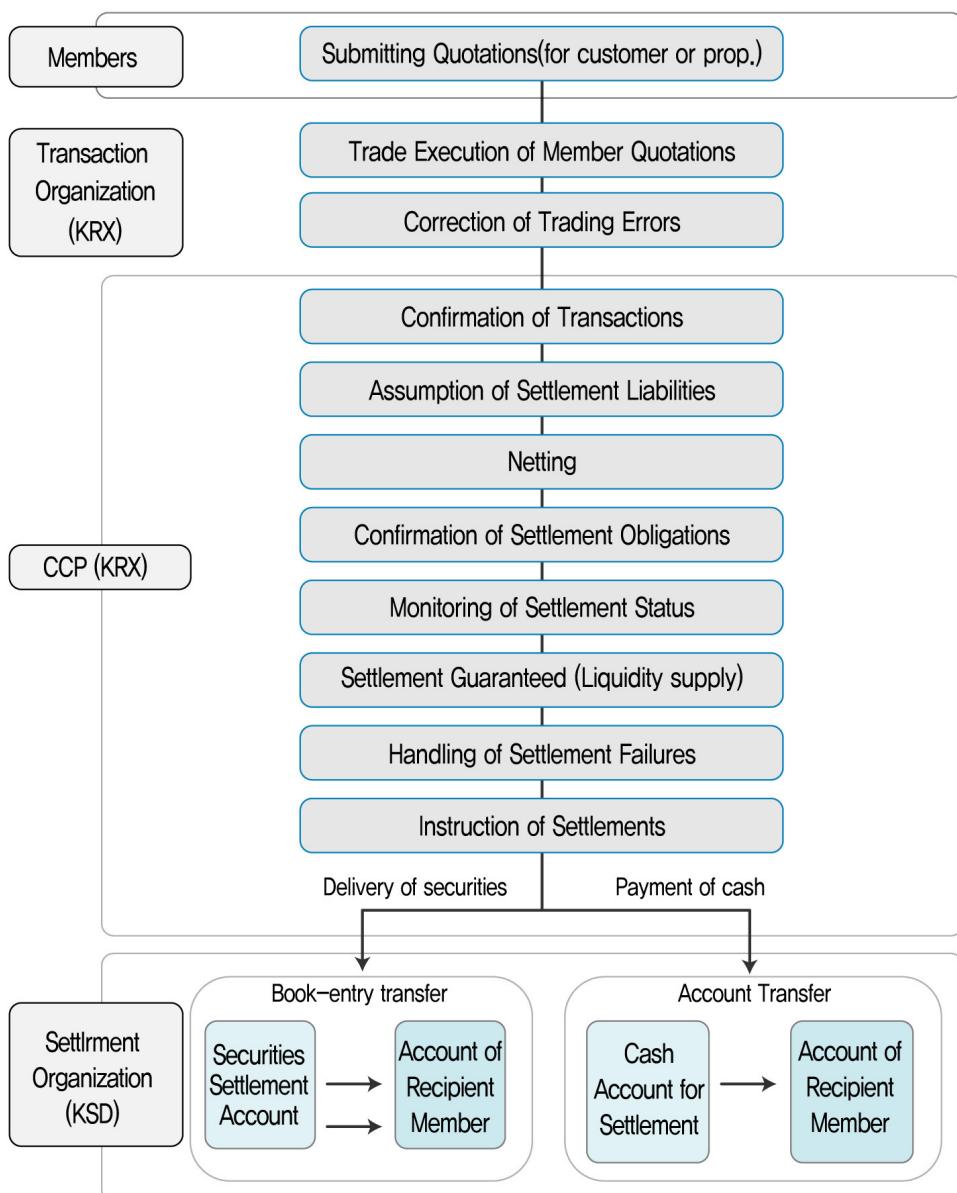
⑥ Monitoring of Settlement Status (§75-5 KOSPI / §31-5 KOSDAQ)

KRX monitors status of settlement process from 09:00 till the completion of the settlement by receiving necessary information⁷⁶⁾ from KSD through electronic network. This is to find any settlement risks in the market and to take appropriate actions if necessary.

75) This new rule will be effective on July 25th 2011. Previously, Members' settlement transaction with KRX started at 15:00.

76) Information regarding Members' settled/unsettled amount, time of payments/deliveries, and etc.

Clearing & Settlement Procedures in KRX Markets





3. Risk Management

① Monitoring of Settlement Risk (§75-3 KOSPI / §31-3 KOSDAQ)

KRX may request Clearing Members to provide status information(including reasons) on settlement amounts and settlement securities when there are possibilities of settlement failures.

② Supply of Liquidity to Guarantee Settlements (§75-4 KOSPI / §31-4 KOSDAQ)

When settlement failure (meaning Clearing Member fails to deposit required settlement amount or deliver required securities) occurs by the deadline, KRX immediately supplies the necessary liquidity in the market to allow all Clearing Members to receive anticipated settlement amount. Available financial resources for the supply of liquidity include Settlement Reserve⁷⁷⁾, Bank Credit Line, Joint Compensation Fund, Fiduciary Member Deposits, and any other financial resources that the Exchange deems necessary.

③ Indemnification of Losses incurred by Settlement Delays (§75-9 KOSPI / §31-9 KOSDAQ)

When a Clearing Member fails to fulfill its settlement obligations on time, KRX may impose indemnification claims against the Member for the losses incurred by such settlement delays.

The loss shall be calculated by multiplying the loss ratio⁷⁸⁾ to the amount of unpaid settlement payments.

④ Use of Settlement Delivery Bills (§75-7 KOSPI / §31-7 KOSDAQ)

When a Clearing Member is unable to deliver settlement securities by the deadline due to certain conditions, the Member may issue Settlement Delivery Bills through KSD as a substitution for its settlement obligations.

Upon being notified from KSD of clearing member's application for issuance of Settlement Delivery Bill, KRX shall provide 'Guarantee of Securities Delivery' (taking into account of the Clearing Member's expected delivery date) and obtain

⁷⁷⁾ KRX reserves part of its cash account to use it as settlement liquidity in case of settlement failures. Currently, total settlement reserve is 100 billion_{KRW}.

⁷⁸⁾ For settlement on Stocks, the loss ratio shall be 2/10,000.



a consent on accepting Securities Delivery Bill from the recipient Clearing Member. KRX shall notify KSD of such matters.

Settlement Delivery Bill is issued by KSD on behalf of KRX and exchange of the Bill for settlement between KSD and concerned Clearing Member shall have same legal validity as exchanging the Bill between KRX and concerned Clearing Member.

⑤ Exceptions in Securities Settlement (§75-8 KOSPI / §31-8 KOSDAQ)

When it is deemed that settlement can not be carried out due to difficult market conditions, KRX may conduct settlement with cash or other securities issues based on consent from the recipient Clearing Member.



4. Handling of Settlement Failures

① Actions to be taken in case of Settlement Failures (§76 KOSPI / §32 KOSDAQ)

In case when a Clearing Member fails to fulfill its settlement obligation or when there is recognized possibility of such non-fulfillment, KRX may take following actions for certain period (or until the cause of such settlement failure has been resolved)

- i. suspend the Clearing Member from trading in the market (whole or in part);
- ii. suspend the delivery of securities or the payments to concerned Member;
- iii. not assume settlement liabilities from that particular Clearing Member; and etc.

Recognized possibility of non-fulfillment, in above paragraph, shall refer to following cases;

- i. when the Member files for suspension of payment or corporate work-out planl;
- ii. when Promissory Notes or Credit Checks issued by the Member are dishonored (bankrupted);
- iii. when the Member's banking transaction has been suspended or halted;
- iv. when the Member's business has been suspended by FSC;
- v. in case of a foreign branch office located in Korea, when the Member's overseas head-office comes under or comes close to any above-mentioned cases;

- vi. when there is large-scaled financial accident, sudden contraction of market liquidity, or excessive use of Settlement Delivery Bill; and etc.

② Clearing with Receivable Cash & Securities (§76 KOSPI / §32 KOSDAQ)

In case where a Clearing Member is suspended from receiving settlement cash or securities from KRX, such locked-in cash or securities shall be used to recover liability claims from that Member or to set off against payable amount from that Member. Also, KRX may sell those locked-in securities to cash-in or to buy-in securities for settlement purposes.

③ Recovery of Losses incurred by Settlement Failures (§25 of Membership Regulation)

KRX shall recover losses incurred from Member's settlement failures by using concerned Member's fiduciary membership deposits, margin deposits, receivable settlement cash or securities, and part of Joint Compensation Fund contributed by the Member.

When all losses can not be covered by the concerned Member's assets, KRX will use Joint Compensation Fund contributed by other Members. In this case, other Members' contributions to cover the loss shall be distributed on pro rata⁷⁹⁾ basis.

When all losses can not be covered by the Joint Compensation Fund, KRX shall use its own assets such as the Settlement Reserve.

④ Indemnification of Losses incurred by Settlement Failures (§399, §400 of the FSCMA)

KRX shall compensate the losses incurred from any Member's settlement failures. In turn, KRX shall be entitled to the right of indemnification against the Member who has caused the settlement failures for compensated amount and all expenses incurred there of.

KRX and other Members' have indemnification priority over other creditors on assets of the Member who has incurred the losses.

⑤ Report to FSC (§363 of the FSCMA)

When settlement failure occurs, KRX shall notify FSC of such matters.

⁷⁹⁾ Based on proportion of Member's contribution to the Joint Compensation Fund.

**⑥ Dispatch of KRX Employees** (§76 KOSPI / §32 KOSDAQ)

If deemed necessary, KRX may assist the Member's settlement process by dispatching its employee to the premise of concerned clearing member.

⑦ Lifting of Suspensions on Settlement Failures (§76-2 KOSPI / §32-2 KOSDAQ)

In case where KRX has not decided on the terms of settlement suspension against the Member, the Member may request to lift the suspension when the causes of such settlement failure have been resolved.

Introduction to Trading at KRX Stock Markets

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