

# Principles for Financial Market Infrastructures(PFMI) Disclosure

2019. 2

- ◆ (Corresponding Institution) Korea Securities Depository
- ◆ (Jurisdiction in operation) Republic of Korea
- ◆ (Regulating Competent Authority) Financial Services Commission
- ◆ (Relevant FMI Type) CSD, SSS
- ◆ (Disclosure Base Date) 31 December, 2018
- ◆ Disclosure can be also found at [www.ksd.or.kr](http://www.ksd.or.kr)
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## Table of contents

<b>I. Comprehensive Introduction</b>	<b>1</b>
<b>II. Summary of major changes since the last update of disclosure</b>	<b>2</b>
<b>III. General Background on the FMI</b>	
1. Overview of CSD service	3
2. Overview of SSS service	7
3. Organizational Structure of KSD	13
<b>IV. Principle-by-principle Summary Assessment</b>	
1. Executive Summary	15
2. Summary Assessment of Observance of the Principles	23
(P 1) Legal basis	23
(P 2) Governance	24
(P 3) Framework for the comprehensive management of risks	25
(P 4) Credit risk	27
(P 5) Collateral	28
(P 7) Liquidity risk	29
(P 8) Settlement finality	30
(P 9) Money settlement	32
(P10) Physical deliveries	33
(P11) Central securities depositories	34
(P12) Exchange-of-value settlement systems	35
(P13) Participant-default rules and procedures	36
(P15) General business risk	38
(P16) Custody and investment risks	39
(P17) Operational risk	40
(P18) Access and participation requirements	42
(P19) Tiered participation arrangements	43
(P20) FMI links	44
(P21) Efficiency and effectiveness	45
(P22) Communication procedures and standards	46
(P23) Disclosure of rules, key procedures and market data	47

# I . Comprehensive Introduction

- The Korea Securities Depository('KSD') performs the FMI<sup>1)</sup>'s roles as both Central Securities Depository('CSD') and Securities Settlement System('SSS') in the Korean securities market
  - The Financial Investment Services and Capital Markets Act('FISCMA') explicitly specifies KSD as a sole CSD as well as SSS in Korea
- KSD has exercised the self-assessment as per the principles conforming to each FMI type in regard to whether to fulfill 'Principles for Financial Market Infrastructures'('PFMI') published by CPMI-IOSCO in April 2012
  - 'Disclosure Framework and Assessment Methodology' published by CPMI-IOSCO in December 2012 has been referred to for this disclosure and self-assessment
  - Most of the 24 principles are applicable to the assessment except for 3 principles\*
    - \* Principle6 (Margin), Principle14 (Seperation and Portability), Principle24 (Disclosure of market data by trade repositories) are not applied to CSD and SSS
- KSD has objectively assessed of whether observing PFMI's conforming to each FMI type and, as a result, assigned ratings in 5 levels\*
  - \* 1. observed, 2. broadly observed, 3. partly observed, 4. not observed, 5. N/A
- By disclosing the assessment result, KSD may contribute to promote the mutual comparability among FMIs on the basis of PFMI and transparency
  - Additionally, it is intended to provide the latest assessment -relevant information to public, participant, competent authority, etc.

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1) Financial Market Infrastructure. PFMI categorizes FMI into 5 types which are PS(Payment System), CSD(Central Securities Depository), CCP(Central Counterparty), SSS(Securities Settlement System), TR(Trade Repository)

## **II. Summary of major changes since the last update of disclosure**

- KSD published its first disclosure framework in line with the FMI disclosure template in Dec, 2015.
  
- There are two major changes to the 2019 disclosure.
  - The update of statistical data
  
  - The structure of KSD

### III. General Background on the FMI

※ The information included in this report is general overview of deposit settlement services

#### 1 Overview of CSD Service

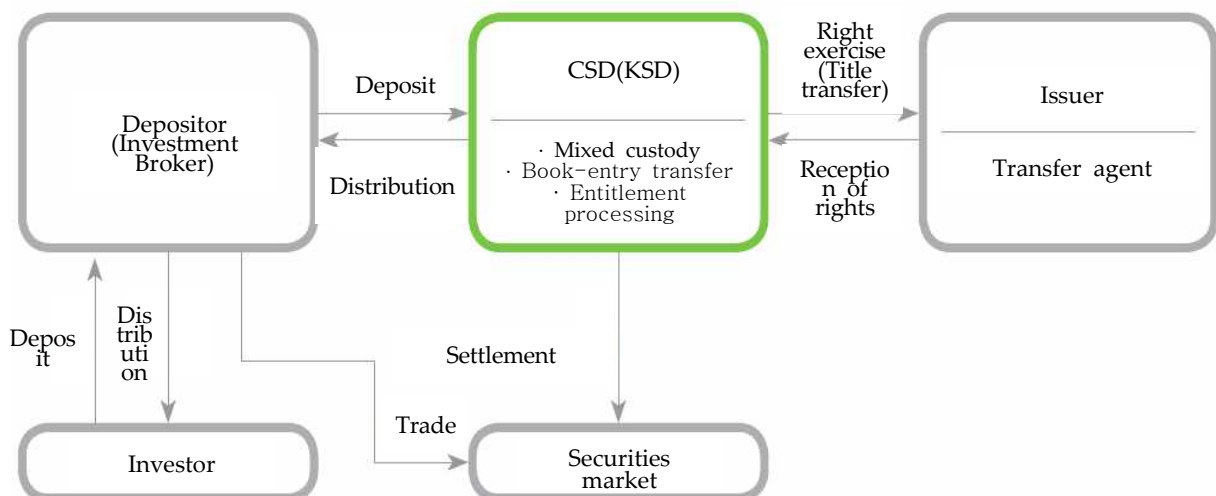
##### Basis

□ The Regulations on Deposit Services for Securities, etc. ('Deposit Regulation') and the Detailed Enforcement Rules for the Deposit Regulation

##### Securities Deposit System

- KSD, as a CSD for the Korean securities market, provides for the streamlined securities deposit service that includes centralized deposit and entitlement processing (corporate action)
- Deposit, defined as an act of entrusting safekeeping and entitlements associated with securities, makes physical certificates immobilised, and allows title transfer by book entry transfer, thereby reducing social expenses arising out of the transferring and handling of physical certificates, and ultimately enhancing investor interests

##### The basic structure of securities deposit system



## Deposit Service

### 1) Overview

- KSD re-deposits securities that a general investor should deposit through financial institutes such as securities firms<sup>2)</sup>(‘depositor’) to KSD and handles settlement associated with trades and entitlement processing(corporate action) along with custody
  - It also exercises the entitlement processing such as ownership transferring and pledging by means of book entry transfer

### 2) Management of Deposited Securities`

- **(Mixed custody)** The deposited securities are managed in a mixed form according to the types and items
  - A depositor shall be presumed to have a co-ownership share on deposited securities in spite of respective ownership, but, in which case all transfer of rights shall be done by book entry transfer
- **(Entry in account book)** Account books, legal ledgers under the FISCMA, include **depositor's account book made by KSD** and **customer's account book made by** depositors such as securities firms
  - Depositor's account book is divided into 2 types of sub-accounts, which are depositor's proprietary and their customer's accounts, and managed
  - On the moment of being recorded in depositor's account book, possession right, co-ownership share, effect of securities' delivery and pledge by book-entry, opposing power against 3<sup>rd</sup> party aroused by marking trusted properties, and claim right for return of deposited securities shall be presumed
- **(Stocks non-bearing)** KSD manages the deposited securities in a non-bearing form in accordance with Article 358 of the Commercial Law
  - Rate of non-bearing of listed stocks as of the end of December 2018 : 92.28%

2) Under the FISCMA, the securities firms are defined as “investment broker”. The securities firm is a colloquialism in the Korean market.

# Entitlement Processing (Corporate action)

## 1) Overview

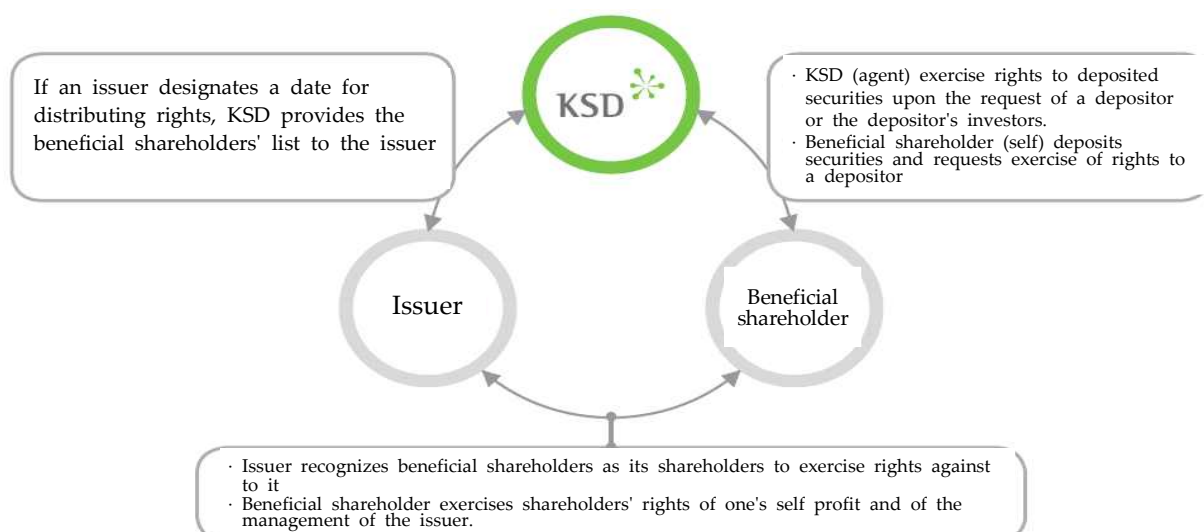
- KSD exercises rights and receives in a lump sum all fruits, including cash dividend, principal and interest, paid-in or bonus stock, etc. associated with the deposited securities on behalf of investors and distributes them to investors
- KSD deals with the entitlement processings for stocks through the 'Beneficial Shareholder System,' and for bonds such as processing principal and interest in accordance with relevant rules

## 2) Beneficial Shareholder System

- **(Overview)** In case that an issuing company designates a certain date for distributing or assigning various rights to its shareholders, the actual owners of the stocks which are deposited in KSD on that day shall be considered and treated as the actual shareholders who have rights for such distribution or assignment

\* Beneficial shareholders in the Korean deposit system shall be presumed to be actual owners of the securities deposited in KSD, and is legally defined as 'co-owner of the deposited securities' under the FISCMA

- **(Operating Structure)** Components of the Beneficial Shareholder System include beneficial shareholder, depositor, KSD, and issuer respectively



- **(Entitlement Processing)** Under the FISCMA, a beneficial shareholder shall be entitled to exercise his/her right directly as a shareholder or indirectly through delegating entitlement processing to KSD against an issuing company
- However, no beneficial shareholder may exercise any shareholder's rights regarding the request for title transferring, entry in shareholders' book, and rights on physical certificates, which must be exercised only by KSD directly to the issuing company in accordance with the FISCMA

### 3) Entitlement Processing for Bonds

- **(Indirect Processing)** Bondholders may request KSD to receive principal and interest, and to exercise warrants of bond with warrants, conversion right of conversion bond, or exchange right of exchange bond on behalf of them
- All principal and interests or stocks arising out of such processing shall be received by KSD, and shall be credited to customer's account through their depositors.
- **(Direct Processing)** Bondholders may request the bond registrar to be registered in the name of 'KSD' in case of the deposited bonds in accordance with the FISCMA
- This is a similar concept with non-bearing of the deposited stocks

#### Statistics on the deposit services

(unit : %, trillion KRW, hundred million shares)

Classification	2014	2015	2016	2017	2018
Deposit rate for listed stocks	98.5	96.0	96.2	97.8	98.0
Total amount of deposited securities	3,151	3,403	3,547	4,037	3,862
Number of stocks for exercising voting right	141	85	118	157	60
Payment amount for cash dividends	14.0	17.2	21.4	27.0	33.9



## 2 Overview of SSS Service

### Basis

- The Regulations on Settlement Service for Securities, etc. ('Settlement Regulation') and the Detailed Enforcement Rules for the Settlement Regulation

### Securities Settlement System

- **(Concept)** Settlement is a process to finalize the transactions by mutually and concurrently exchanging securities and funds between sellers and buyers after processing through trade confirmation and netting
  - Settlement usually stands for DVP(Delivery Versus Payment) mechanism whereby 'delivery of securities' and 'payment of funds' occur concurrently
  - KSD operates the DVP settlement system for implementing the simultaneous settlement of securities and funds
- **(Scope and Type)** KSD becomes the Securities Settlement System('SSS') for all securities transactions. The settlement done by KSD may be roughly categorized into 'In-exchange Market Settlement' and 'OTC Market Settlement'

#### The operators of clearing and settlement services per market

	In-exchange			OTC			
	Stock Market	Bond	Derivatives	K-OTC	Institutional for Stock	Bond OTC	OTC Derivatives
Trading	KRX	KRX	KRX	KOFIA	Parties	Parties	Parties
Clearing (CCP)	KRX	KRX	KRX	-	KSD	-	KRX
Settlement	KSD	KSD	KRX	KSD	KSD	KSD	KRX

## **In-exchange Market Settlement Service**

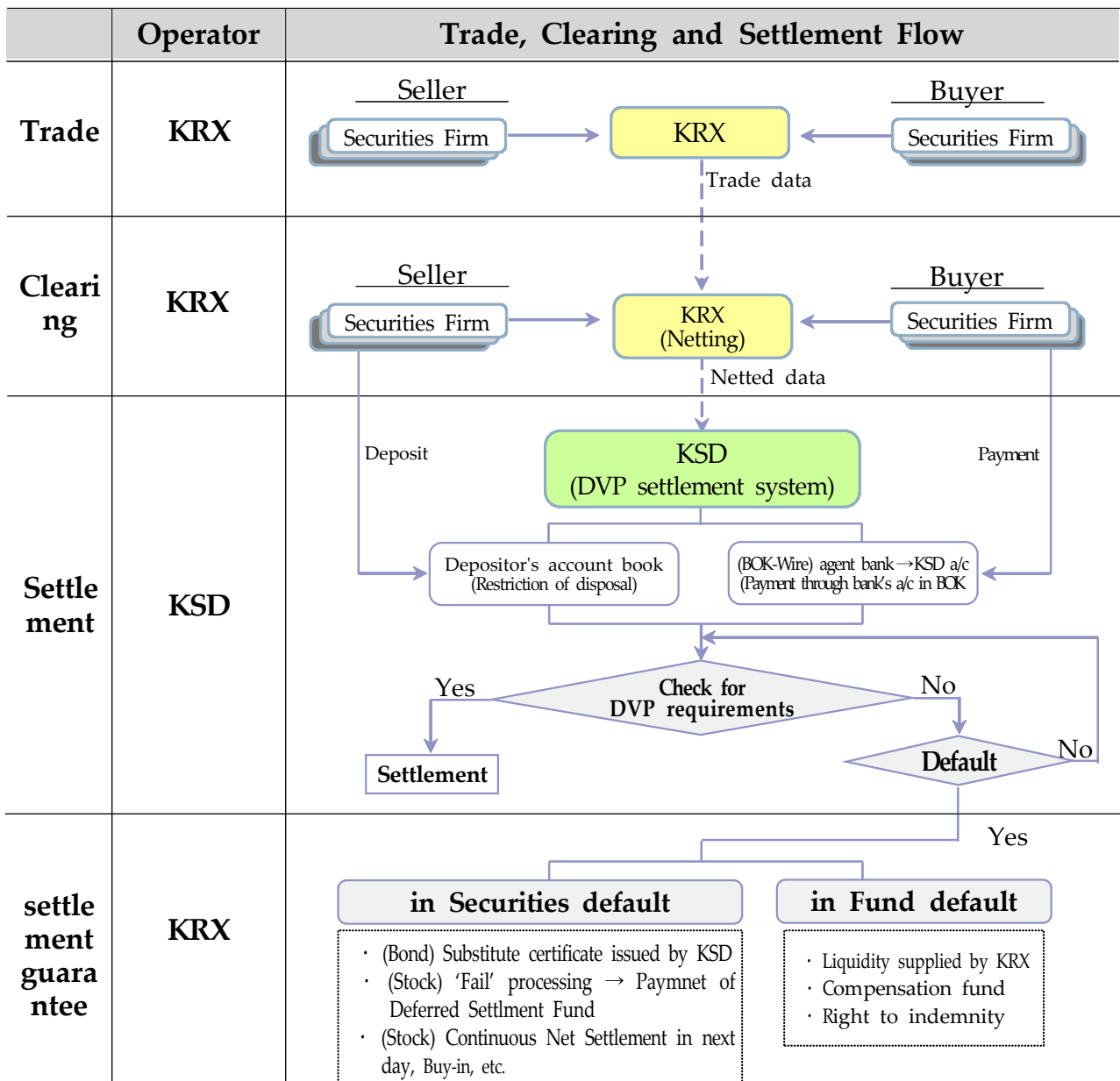
### **1) Overview**

- This is the service to exercise the settlement of securities traded between KRX members such as securities firms in KOSPI market, KOSDAQ Market, KONEX market, and KRX Trading System for government securities(so-called 'KTS market') operated by the Korea Exchange('KRX')
- In this area, clearing service (trade confirmation, confirmation of claim and obligation, settlement guarantee, etc.) is done by KRX, and settlement service (delivery of securities and payment of fund) is done by KSD

### **2) Types of Service**

- (Stock Market Settlement)** This is the settlement of stocks traded between KRX members in stock exchange (KOSPI, KOSDAQ, and KONEX market) operated by KRX
- (Bond Market Settlement)** This is settlement of bonds traded between KRX members in KTS market operated by KRX

### 3) Process of In-exchange Market Settlement



## OTC Market Settlement

### 1) Overview

- This is the service of executing settlement through trade confirmation between the parties, affirmation of securities and fund to be settled, and securities delivery by book-entry transfer in OTC market

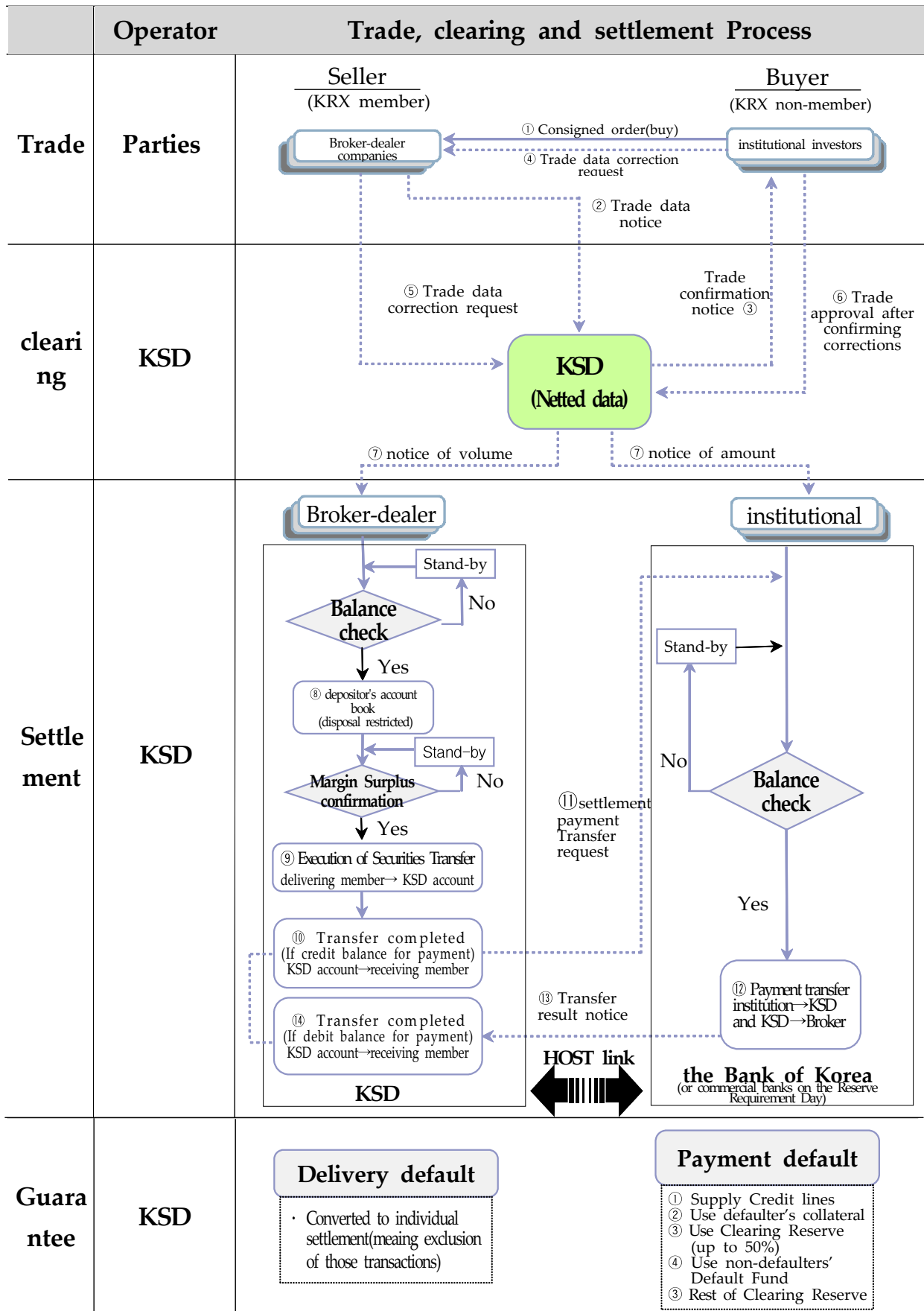
- KSD conducts trade matching and settlement services for trades executed in OTC market

## 2) Types of services

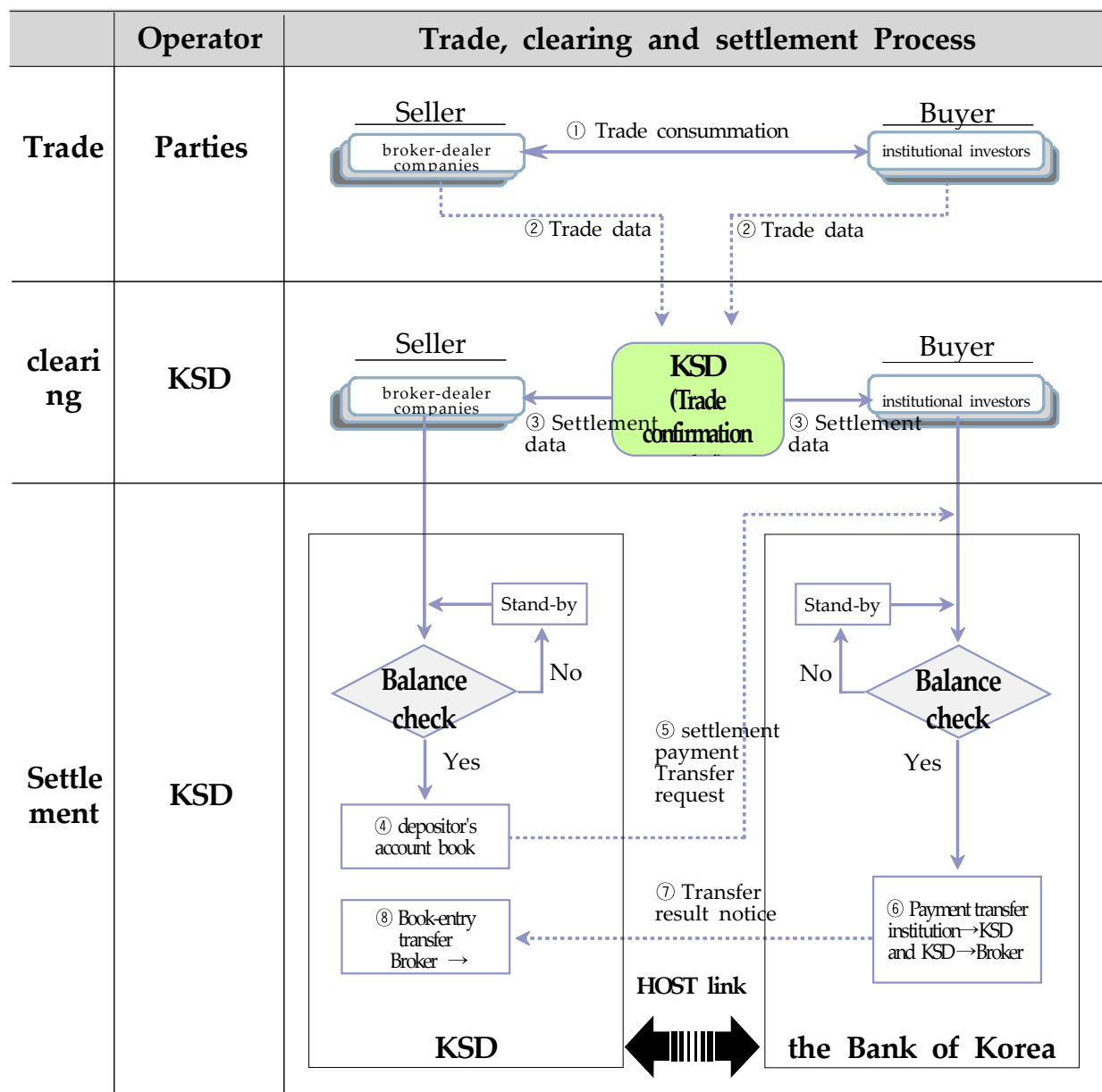
- (Institutional Investors' Settlement for Stocks)** In case that a institutional investor(consigner of order) which is not a member of KRX executes a trade via a securities firm(broker/dealer) which is a member of KRX(consignee of order)
  - KSD receives trade data, fixes securities and fund to be settled after trade confirmation, and respectively settles securities per each trade and fund positions deduced by multi-lateral netting per each member (DVP2 method)
- (Institutional Investors' Settlement for Bonds)** After sale contract is made throughout the exploration for buyer/seller between the both parties in OTC market, which is not a regulated market such as KRX,
  - KSD receives trade data for bonds(including CDs and CPs) from securities firms as a broker/dealer and institutional investors, fixes securities and fund to be settled after trade confirmation, and settles gross volume and amount in real time per each trade (DVP1 method)
- (K-OTC Settlement)** KSD receives trade data from K-OTC operated by the Korea Financial Investment Association, and settles securities and fund throughout the bi-lateral netting for both securities and fund after trade confirmation

## 3) Process of OTC Market Settlement

□ Process of Institutional Investors' Settlement for Stocks



□ Process of Institutional Investors' Settlement for Bonds



**The statistics of settlement services**

(Unit : trillion KRW)

Classification		2014	2015	2016	2017	2018	
In-exchange	Stock Market	108	117	112	123	139	
	Bond Market	362	380	382	359	394	
OTC (Institutional Investors')	for Stocks	165	171	158	179	200	
	for Bonds	Bond	2,714	2,866	2,726	2,573	2,502
		CD	29	34	34	34	29
	CP	1,385	1,106	1,168	1,178	1,155	

### 3 Organizational Structure of KSD

#### General Overview

##### Brief History

- KSD was first found in the name of “Korea Securities Settlement Corporation(KSSC)” in December 1974 and through the transformation\* and change of legal entity and name in Korean had become the present “Korea Securities Depository”

\* General corporation → In 1974, Special public institution under the Securities Exchange Act which was substituted by FISCMA later in 2005

##### Legal Ground of Establishment and Mission

- **(Ground)** Article 294 of FISCMA
- **(Mission)** It was established in order to facilitate a centralized deposit and book-entry transfer between accounts of securities, etc., and settlement service and securities circulation subsequent to trades

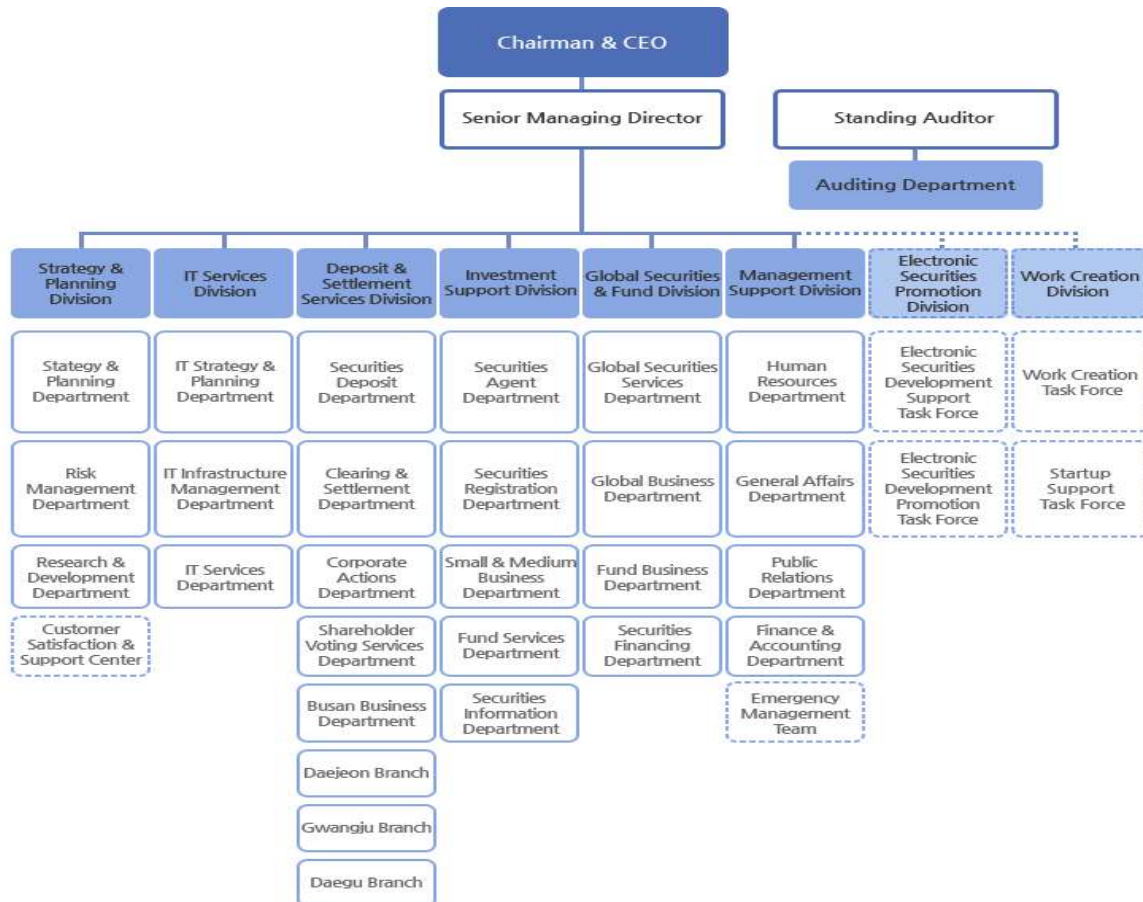
#### Current Organizational Structure of KSD

##### Locations of offices

- Head Office in Busan, Seoul Office, Ilsan Center, 3 Branches (Daejeon·Kwangju·Daegu), 1 Customer Support Centers(Jeonju) 1 Hong Kong Office

##### Organizational Structure

- 8 Divisions(※ 6 + 2 T/F) 25 Departments 3 Branches (※ The current employees are 628 persons as of the end of December 2018)



□ **Governance Structure**

- **(Ownership)** 56 institutions including KRX as shareholders

	KRX	Securities Firm	Related Institution	Bank	Insurance	etc	Total
Shareholders	1	22	3	11	17	2	56
Shares(%)	70.43	21.62	4.88	1.08	0.73	1.26	100

- **(Executives)** 7 persons under the Article of Corporation(CEO, Senior Managing Director, Standing Auditor, and 4 Non-standing Directors(2 representatives for public interest, 2 representatives for shareholder))
  - Managing Director\* (Head of Division) : 8 persons
    - \* However, they are not board members
- **(Board of Directors)** It comprises 2 Standing Directors (CEO·Senior Managing Director) and 4 Non-standing Directors



## IV. Principle-by-principle Summary Assessment

### 1 Executive Summary

#### General organization

##### **【Principle 1】 Legal basis : Observed**

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions

- ▶ **(Result of assessment)** KSD, an entity established under the FISCMA, conducts its relevant services on the basis of laws and regulations. In addition, the finality of KSD's settlement service is guaranteed by relevant laws including the Debtor Rehabilitation and Bankruptcy Act ('Bankruptcy Act')

##### **【Principle 2】 Governance : Broadly Observed**

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders

- ▶ **(Result of assessment)** KSD is managed by the Board of Directors which includes non-standing directors for the purpose of achieving public interest for securing stability and efficiency of the deposit and settlement system. However, since KSD is dominantly subordinate to a market operator, KRX, in terms of ownership, there may be some limitation that the various interests and opinions of shareholders and users would be reflected to the decision of management. In addition, there are some points for further improvement from the perspective of independency from the management in regard to the governance of risk management such as the organization of risk committee, etc

##### **【Principle 3】 Framework for the comprehensive management of risks : Observed**

An FMI should have a sound risk management framework for comprehensively managing legal, credit, liquidity, operational, and other risks

- ▶ **(Result of assessment)** KSD maintains a risk management framework based on comprehensive and constant monitoring through the Internal Risk Management Regulations and the internal risk management system, and prepares for abnormal situations through the establishment of BCP

## Credit and liquidity risk management

### **[Principle 4] Credit risk : Observed**

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

➡ **(Result of assessment)** KSD manages constantly the exposures of credit risk through the relevant Regulations and SAFE+ system. Regarding the Institutional Investors' Settlement for Stocks, KSD maintains high fidelity financial resources sufficient to cover a wide range of potential stress situations by means of the compensation fund and internal reserve, etc. with regard to the Institutional Investors Settlement for Stocks. In addition, it conducts daily stress tests based on stress scenarios that reflects extreme but plausible market situations

### **[Principle 5] Collateral : Observed**

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits

➡ **(Result of assessment)** KSD accepts the securites for collateral only with low credit, liquidity, and market risks, and takes the appropriate risk management measures such as a conservative haircut, daily evaluation, etc.

### **[Principle 6] Margin : Not Applicable**

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed

## **【Principle 7】 Liquidity risk : Observed**

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions

- ▶ **(Result of assessment)** KSD maintains the credit-line agreements amounting to 200 billion KRW with the Shinhan and Woori Bank in Korea and check up the feasibility of the credit-lines regularly. In addition, KSD is equipped with appropriate risk management system against the default of securities and fund settlement by introducing the intraday Repo system through the link with the central bank and automatic SLB system

### **Settlement**

## **【Principle 8】 Settlement finality : Observed**

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time

- ▶ **(Result of assessment)** The settlement finality is provided clearly and certainly by the relevant law(the Bankruptcy Act), which is disclosed to the public

## **【Principle 9】 Money settlement : Observed**

An FMI should conduct its money settlement in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money

- ▶ **(Result of assessment)** KSD designates commercial banks as well as Bank of Korea as banks for fund settlement, so as to minimizes the credit and liquidity risk

## **【Principle 10】 Physical deliveries : Observed**

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries

- ➡ **(Result of assessment)** As KSD does not adopt the method of delivering the physical securities as a SSS, this principle is not applicable. However, the laws and internal regulations regarding the physical delivery of securities under the deposit system as a CSD are well prepared, and the risks associated with such physical deliveries are properly managed

## Central securities depositories and exchange-of-value settlement systems

### **[Principle 11] Central Securities Depositories : Observed**

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry

- ➡ **(Result of assessment)** Although the complete dematerialisation of securities is yet to be ensured, KSD has rules and procedures to manage the securities in an immobilised or dematerialised manner by means of stocks non-bearing system, lump-sum deposit system, bond registration system, etc., and ensures the rights of issuers and holders of securities in accordance with the relevant laws and regulations, and manage appropriately the risks associated with the safekeeping and transfer of securities ✕ the new act for completely dematerialising the securities is on the progress for enactment and brought to the National Assembly now

### **[Principle 12] Exchange-of-value settlement systems : Observed**

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other

- ➡ **(Result of assessment)** KSD is eliminating the principal risk against counterparties by adopting the DvP system

## Default management

### **[Principle 13] Participant-default rules and procedures : Observed**

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate

principal risk by conditioning the final settlement of one obligation. An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations upon the final settlement of the other

▶ **(Result of assessment)** In case of In-exchange Settlement, KRX providing the clearing services for those markets specifies the Regulations relevant to participants' defaults and in charge of the default management. In this regard, KSD is supposed to immediately report any possible default situations to KRX. As for Institutional Investors' Settlement for Bonds, it has the structure in which the default interposed by SSS can not occur due to DVP1 method. However, KSD stipulates the procedures of provision of liquidity, loss compensation, etc in case of participants' defaults for Institutional Investors' Settlement for Stocks in accordance with the relevant Regulations. The amendment of those Regulations requires the approval of competent authority and public consultation of participants in its process. In addition, the appropriateness of default procedures is under supervision of competent authority regularly and occasionally

#### **[Principle 14] Segregation and portability : Not Applicable**

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions

### **General business and operational risk management**

#### **[Principle 15] General business risk : Observed**

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services

▶ **(Result of assessment)** Since KSD is established under the FISCMA and its operation and management are regulated and supervised by the several laws including the Act on Management of Public Institutions under which the entrance of general business is controlled, the general business risk involved with KSD is extremely limited. Other than that, KSD maintains monitoring and reviewing system for general business risk associated with new business, etc. through the Internal Risk Management Regulations and the internal risk

management system, and holds sound net current assets based on equity such as its own voluntary reserve equivalent to at least operating expenses necessary for 6 months

#### **【Principle 16】 Custody and investment risks : Observed**

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

➡ **(Result of assessment)** KSD keeps the deposited assets in custody as a CSD by itself and safeguards them in the vaults in the top level of security in accordance with the Regulations on Management of Security and Safety. KSD also implements safekeeping and operation under the appropriate risk management framework to protect its own and its participants' assets. The participants' assets are not the object of investment and is administering the investment of its own assets as conservatively as possible in accordance with the Directive on the Management of Fund Investment

#### **【Principle 17】 Operational risk : Broadly Observed**

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfillment of the FMI's obligations, including in the event of a wide-scale or major disruption

➡ **(Result of assessment)** KSD maintains a constant monitoring system for all operational risks through the Internal Risk Management Regulations and the internal risk management system, engages in regular system improvements to ensure a high degree of operational reliability, and promotes continuous operational improvement such as the SAFE+ and other IT systems. However, the target recovery time in the event of a disruption such as the status fell into BCP is currently is set up as 3 hours in accordance with the Regulation on Supervision of Electronic Financial Transactions which has been enacted by FSC and applied to other FMIs such as KRX in common

<b>Access</b>
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#### **【Principle 18】 Access and participation requirements : Observed**

An FMI should have objective, risk-based, and publicly disclosed criteria for

participation, which permit fair and open access.

- ➡ **(Result of assessment)** KSD has fair, objective, and publicly disclosed criteria for participation under relevant regulations, and manages risk associated with its open participation system through monitoring observance of regulations.

### **[Principle 19] Tiered participation arrangements : Observed**

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

- ➡ **(Result of assessment)** KSD maintains indirect participation through the segregated management of depositors' account books and does not operate tiered participation arrangements. The risks associated with the segregated management of depositors' account books, in which there are proprietary and customer's, is managed appropriately in accordance with Principle 11

### **[Principle 20] FMI links : Broadly Observed**

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks

- ➡ **(Result of assessment)** KSD has established the links for operational cooperation with domestic FMIs such as Bank of Korea, KRX, etc., and indirect operation links with overseas CSDs including ICSDs which are as the custodian banks for foreign securities in association with the outbound investment of domestic investors.

The link-related risks are managed in pursuance with the internal regulations, but KSD believes that a joint risk management system is required at least for domestic FMIs because it is impossible to manage substantially link-related risks through an individual risk management system

## **Efficiency**

### **[Principle 21] Efficiency and effectiveness : Observed**

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves

- ➡ **(Result of assessment)** KSD enhanced efficiency of securities settlement system by introducing the New Securities Settlement System in consultation and cooperation of participants, relevant stakeholders and the supervisory authorities

in 2015. KSD has also endeavored to secure its effectiveness by incorporating the improvement of such system into mid- and long-term management goals and business plan, internal and external(Bank of Korea) assessment, and open consultation with related parties

**[Principle 22] Communication procedures and standards : Observed**

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording

- ▶ **(Result of assessment)** KSD established and operates not only the messaging conversion system for domestic securities transactions in order to comply with the domestic communication standards and environments, but also the message transmitting and receiving system for the settlement of international securities transactions, which can be converted in compliance with the internationally-used communication procedures, standards, and standardized messaging formats

<b>Transparency</b>
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**[Principle 23] Disclosure of rules, key procedures and market data : Observed**

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed

- ▶ **(Result of assessment)** All relevant rules and key procedures are publicly disclosed via a webpage to which the public can access

**[Principle 24] Disclosure of market data by trade repositories : Not Applicable**

A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs



## 2 Summary Assessment of Observance of the Principles

### Principle 1 Legal basis

#### 1. Gist of Principle

- An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions

#### 2. KSD's Key Practices for Observance

- All services of KSD as a CSD and SSS are based on the FISCMA and Internal Service Regulations
  - KSD is equipped with the clear legal ground for each service conducted by KSD on the basis of the Article 296 of the FISCMA
    - The Article 294 to 303 of the FISCMA constitute the legal framework regulating the CSD including the Entitlement Processing and SSS services
  - The settlement finality for a SSS is explicitly specified in the Article 120 of the Bankruptcy Act
- To all services of KSD, domestic laws apply without regard to the citizenship of participants or customers. For overseas investment of Korean citizens, the laws of the state where the investment is made shall apply
  - For international transactions, governing laws are determined in pursuance of the Private International Law, and jurisdictions may be clarified by being reflected in the service regulations, agreements, etc.
- KSD's services are specified in detail on the Deposit Regulation and the Settlement Regulation which are delegated by the

FISCMA and approved by the Financial Services Commission('FSC')

- The relevant Acts and Regulations are made available to the public through the website of KSD (<http://www.ksd.or.kr>), and explained through regular training for customers

### 3. Rating of the Principle : Observed

#### Principle 2 Governance

##### 1. Gist of Principle

- An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders

##### 2. KSD's Key Practices for Observance

- KSD is found to aim at providing convenient and safe post-trading services that can contribute to the development of capital market in Korea and its management performance is evaluated each year internally and externally
- KSD is not only a special institution established under the FISCMA, but also a corporation under the Commercial Act in which 56 financial institutes are participating as shareholders including KRX, securities firms, banks, insurance companies, etc.
- However, KRX, the operator of the market, holds more than 70% of shares, which may limit voices of other stakeholders to be reflected to the management of KSD and embrace various opinion

- The management of KSD consists of a CEO, an standing auditor, a senior managing director, and 8 managing directors, and the Board of Directors('BOD') consists of the CEO, the senior managing director, and 4 non-standing directors
  - The CEO and standing auditor are appointed by the resolution of shareholders' meeting through the recommendation committee. In case of the CEO, the approval of FSC is additionally needed
  - The roles and responsibilities of the management and the BOD are set forth in the Articles of Incorporation and the Regulations on the Board of Directors
  
- KSD has established the comprehensive risk management framework including the risk management committee<sup>3)</sup>, the establishment and operation of a designated risk management organization, etc. pursuant to the Internal Control Regulations
  - However, in the aspect of the governance of risk management it is needed that the role of BOD is strengthened and the independency of committee organization is enhanced such as upgrading the risk management committee to one of internal committees of the BOD

### 3. Rating of the Principle : Broadly Observed

#### **Principle 3** Framework for the comprehensive management of risks

##### 1. Gist of Principle

- An FMI should have a sound risk management framework for

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3) It is composed of one senior managing director, the senior managing director, all managing directors, and three external members for the expertise of risk management and IT.

comprehensively managing legal, credit, liquidity, operational, and other risks

## 2. KSD's Key Practices for Observance

- KSD has constructed the company-wide risk management framework through the internal Risk Management System ('RMS'), and is controlling the market, credit, liquidity, operational and legal risks
  - RMS receives business data every day through interfacing with the business system, and measures and controls risk exposures
  - The validity of the policy, the procedure and the system of the risk management are reviewed and discussed by the risk management committee regularly, and the result thereof is reported to the CEO and BOD
    - The standing auditor also inspects appropriateness of the policy, the procedure and the system of the risk management
- KSD not only sets forth qualification for participation and standard for eligible securities, but also manages and monitors risk exposures in order to control risks that participant's customers as well as participants may pose to KSD
- KSD registers in RMS, selects as essential index, and constantly monitors the risks arising out of interdependence with other entities
- KSD has prepared for a Business Continuity Planning ('BCP') to cope with service outage due to disaster or calamity, and reviews and updates its scenario through simulation training each year
  - KSD manages risks with regard to essential risks proactively by conducting stress testing
  - KSD keeps updating the recovery plan such as emergency resilience and operation winding-down against the unexpected

financial insolvency risk except for disaster or calamity

### 3. Rating of the Principle : Observed

## Principle 4 Credit risk

### 1. Gist of Principle

- An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence

### 2. KSD's Key Practices for Observance

- KSD, as a SSS, can manage and monitor the credit exposures posed by each participant while settling the transactions at almost real time through the IT operating system, which is called as "SAFE+"
  - Credit exposures posed by participants are managed also by constantly monitoring credit rating and financial soundness of settlement members
  - In case of the Institutional Investors' Settlement for Stocks, KSD limits the total size of risk by setting up the Net Debit Cap at first and manages each member's credit risk by means of the realtime collateral management processed with the conditions of 'Margin Surplus<sup>4)</sup>', etc.

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4) Margin surplus value shall be calculated by the below formula. The conditions of Margin Surplus means that only if margin surplus value of receiving member should be greater than zero, the transfer of targeted securities shall be executed

\* Margin Surplus Value = Assured Assets (= Securities to be received + Collateralized securities +

※ For the In-exchange Settlements, KSD implements the credit risk management and settlement guarantee

KSD, as a SSS, maintains a variety of financial resources sufficient to cover its credit exposure to participants' defaults under maximum stress situation

○ KSD separately holds 300 billion KRW as the Deposit Settlement Reserve to ensure the settlement, and for the Institutional Investors' Settlement for Stocks 50 billion KRW as the Default Fund and 200 billion KRW as the Clearing Reserve

### 3. Rating of the Principle : Observed

## Principle 5 Collateral

### 1. Gist of Principle

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits

### 2. KSD's Key Practices for Observance

KSD maintains collateral management system, for the Institutional Investors Settlement for Stocks, and regulates the types of securities<sup>5)</sup> eligible for collateral strictly in accordance

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Receiving member's portion in Default fund) - Net Debit Balance (= Total amount to be paid(Account Payable) - Total amount to be received(Account Receivable) - Settlement Facilitation Payment)

5) listed securities, subscription rights, warrants, equity linked warrant, depositary receipts, treasury bonds, municipal bonds, monetary stabilization bonds, special bonds, collective investment certificates (except for corporate bonds)

with its service regulations

- No collateral other than what is set forth in the regulation shall be allowed, and the haircuts<sup>6)</sup> are established under the assumption of extreme stress situations
- KSD reflects substantial value of collateral by means of eligibility assessment, valuation, and daily marking to market through the collateral management system
- For stocks, the closing price is used, and for bonds, the average of market prices published by 4 bond pricing companies is used
- When accepting collateral, it is necessary to review the collateral with regard to restriction of self issued securities (including securities issued by affiliates)

### 3. Rating of the Principle : Observed

## Principle 7 Liquidity risk

### 1. Gist of Principle

- An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios

### 2. KSD's Key Practices for Observance

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6) For stocks, applicable ratio of valuation is 80% for KOSPI 200 issues, 70% for other listed issues, and 0% for administrative issues.

- KSD widely classifies liquidity risk into the company-wide, securities lending and borrowing, and settlement liquidity risk. KSD manages comprehensively its total volume of risk<sup>7)</sup>, tolerance limit, etc. in the RMS
- The risk management committee sets up the tolerance limit of liquidity risk each year, and the risk management department monitors it every day, and regularly reports the result thereof to the management, the standing auditor and the chairman of the risk management committee
- For the Institutional Investors Settlement for Stocks, KSD sets up and manages Net Debit Cap (maximum 100 billion KRW) by group, and maintains various resources<sup>8)</sup> for default and liquidity in preparation for defaults of maximum 2 participants
  - The liquidity resources are readily available in accordance with the principle of high liquidity asset management
  - The procedure regarding defaults in the Institutional Investors Settlement for Stocks is specifically provided in the service regulations

### 3. Rating of the Principle : Observed

## Principle 8 Settlement finality

### 1. Gist of Principle

- An FMI should provide clear and certain final settlement, at a

<sup>7)</sup> For company-wide liquidity risk, by means of liquidity ratio, and for securities lending and borrowing and settlement liquidity risk, by means of VaR

<sup>8)</sup> The credit line supplied by commercial banks is 200 billion KRW, the Clearing Reserve is 200 billion KRW, and the Default Fund is 50 billion KRW



minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time

## 2. KSD's Key Practices for Observance

- KSD explicitly sets forth in its service regulations that the time when the securities or fund settlement become unconditionally irrevocable is when securities(or fund) are transferred(or paid) by the book-entry to KSD's securities(or fund) settlement account
  - From this time, no cancellation of transfer of securities or payment for settlement is allowed, and the settlement finality is protected by the Bankruptcy Act as an exception of the 'Right of Revocation'
  - In case of an international settlement, the laws of the state where the custodian is located shall apply to overseas investment of Korean citizens, and Korean laws shall apply to all transactions of foreigners who invested in Korea
- KSD designates the Bank of Korea, the central bank of Korea, as a fund settlement bank for KSD to guarantee the simultaneous finality of both payment and securities settlement through DVP by way of IT connection with the 'BOK-Wire', the financial network run by the Bank of Korea
  - The Institutional Investors Settlement for Stocks on the Reserve Requirement Day or the settlement for In-exchange retail bond trade is inevitably conducted by commercial banks
- KSD finally exercises the operations for settlements in real time or intraday through multiple batch, which interval is approximately 1 minute, according to markets and products, and sets up the deadlines for the settlements

### 3. Rating of the Principle : Observed

#### Principle 9 Money settlement

##### 1. Gist of Principle

- An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money

##### 2. KSD's Key Practices for Observance

- KSD minimises credit risk and liquidity risk, which may arouse from the use of commercial bank money, by conducting its fund settlements by central bank money as a basic principle
  - If inevitable, commercial banks (Shinhan/Woori Bank) are used exceptionally such as the Reserve Requirement Day

##### < Settlement banks >

Classification	In-exchange Settlement for				OTC Settlement for		
	Stocks	Government Bonds	Bonds		Institutional Investors Settlement for Stocks	Institutional Investors Settlement for Bonds	K-OTC
			Same day	RP			
Settlement Banks	BOK	BOK	Shinhan/Woori Bank	BOK	BOK (Shinhan/Woori Bank)	BOK	Shinhan/Woori Bank

- KSD designates commercial banks that meets more than 1.0 times of minimum requirements<sup>9)</sup> and has a certain credit rating or higher<sup>10)</sup>, which conditions are also specified in the Regulation on

9) BIS common equity capital ratio 4.5%, Tier 1 capital ratio 6.0%, total capital ratio 8.0%

10) They should be rated no lower than AA by credit rating agency qualified by Financial supervisory service(FSS)

Supervision of Banking Business, as its fund settlement bank in accordance with its internal service regulation

- The matter associated with the change of fund settlement bank is also set forth in the service regulations. KSD monitors whether to fulfill the requirements in real time via SAFE+ to manage risks arising from the use of commercial bank money

### 3. Rating of the Principle : Observed

#### **Principle 10** Physical deliveries

##### 1. Gist of Principle

- An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

##### 2. KSD's Key Practices for Observance

- KSD adheres to a principle to settle all the transactions only by book-entry transfer. The settlement by physical deliveries is not exercised at all
- KSD, as a CSD, conducts the due diligence of physical instruments under safekeeping, prepares the internal control procedures such as a training program for security management training, etc., and monitors those procedures
- In addition, the number of deposited securities in the account books and daily safekeeping balance are reconciled and verified at every end of business

### 3. Rating of the Principle : Observed

#### **Principle 11** Central securities depositories

##### 1. Gist of Principle

- A CSD should have appropriate rules and procedures to ensure the integrity of securities issuance, and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should manage securities in an immobilised or dematerialised form for their transfer by book entry

##### 2. KSD's Key Practices for Observance

- KSD deposits securities and keeps them safely in accordance with the FISCMA, and prevents the illegal use of such securities by means of book-entry transfer
  - KSD conducts daily reconciliation and report of the entire volume of securities, and periodic reconciliation of physical instruments from time to time or at least once a quarter pursuant to the internal control procedures
  - In case of issuing the securities, KSD verifies whether the volume of issued securities accords with actually deposited securities on the account book on a daily basis
- KSD does not allow overdraft or debit balance in securities account, and shall be held liable jointly with participants for any shortage of deposited securities. KSD is also equipped with various safety measures<sup>11)</sup>
- In case of stocks, KSD maintains securities in an immobilised or

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11) Including an insurance for financial institution that covers securities embezzlement, damages or theft, and the Deposit settlement reserve, etc.

dematerialised form(92.28%) at the same time as issuance, which is called as 'lump-sum deposit', or after issuance of securities and transfers securities by means of book entry

- Bonds are mostly not physically issued but registered (99%), and are deposited at the same time as issuance. For the registered bonds, 50% of deposit fee is discounted
- KSD separates strictly its proprietary assets from those of participants' and participants' customers', which are managed in the depositor's account books.
- Participants shall separate their proprietary assets from customers' assets, which are managed in the customer's(or investor's) account book as a legal ledger on their own responsibility

### **3. Rating of the Principle : Observed**

## **Principle 12** Exchange-of-value settlement systems

### **1. Gist of Principle**

- If an FMI settles transactions that involve the settlement of two linked obligations, it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other

### **2. KSD's Key Practices for Observance**

- KSD eliminates principal risk by operating the final settlement as a precondition for that only if one's obligation is exercised the fulfillment of other's obligation is completed

- **(In-exchange Market Settlement)** In case that a receiving member fully delivers the securities obligated or pay the fund obligated, or meets the conditions of 'Limit of Securities Receivable', KSD assumes that the requirements for settlement are satisfied and then finally implements that settlement
  - **(OTC Market Settlement)** For stocks, KSD conducts the final settlement when the conditions of 'Execution of Securities Transfer' settlement are satisfied. For bonds, KSD eliminates principal risk by DVP settlement of securities and fund
- KSD eliminates principal risk by adopting DVP mechanism, which conditions the fulfillment of one's obligation upon the fulfillment of the other's, for all kinds of settlements

< Settlement method of each market >

Classification	Market			OTC		
	Stocks	Government Bonds	Bonds	Institutional Investors Settlement for Stocks	Institutional Investors Settlement for Bonds	K-OTC
Settlement Method	DVP3	DVP1	DVP3	DVP2	DVP1	DVP3
Securities	Netting	Gross	Netting	Gross	Gross	Netting
Fund	Netting	Gross	Netting	Netting	Gross	Netting

### 3. Rating of the Principle: Observed

## Principle 13 Participant-default rules and procedures

### 1. Gist of Principle

- An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can

take timely action to contain losses and liquidity pressures and continue to meet its obligations

## 2. KSD's Key Practices for Observance

- KSD, as a SSS, stipulates the rules and procedures in association with participant's default in the Settlement Regulation and so on
  - **(In-exchange Market Settlement)** If a participant fails to pay fund or deliver securities by the settlement deadline, KSD will promptly notify and cooperate with KRX(as a CCP) so that KRX shall take appropriate actions such as providing liquidity
  - **(OTC Market Settlement)** If a participant fails to pay fund by the settlement deadline, KSD will promptly provide liquidity so as to terminate the whole settlement and after then execute the default management procedures according to relevant regulations
- KSD specifies the detailed rules and procedures of the default management process only for the Institutional Investors Settlement for Stock in the Clearing Regulation
- All service regulations including the Settlement and Clearing Regulations that provide the details of handling participants' defaults are made available to the public through KSD's homepage(<http://www.ksd.or.kr>).
- Those Regulations may only be established and revised through participants' consultation and the FSC's approval

## 3. Rating of the Principle : Observed

## 1. Gist of Principle

- An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services

## 2. KSD's Key Practices for Observance

- KSD operates a company-wide enterprise risk management(ERM) framework with which general business risk including the risk associated with newly launching business can be identified, monitored and managed
  - KSD identifies, evaluates, constantly monitors and rectifies the general business risk including financial and non-financial risk in a comprehensive manner in the RMS
- KSD's equity capital is 1,093 billion KRW as of the end of 2017:
  - 811.7 billion KRW of which is accounted for by voluntary reserves, and annual operating expenses are 134.2 billion KRW. Thus, KSD's net liquid assets<sup>12)</sup> seems to be sufficient
- KSD establishes and manages long-term plan for raising additional capital by setting up the mid- and long-term managerial and financial planning every year

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12) 75% of total assets held by KSD are classified as liquid assets and the voluntary reserves are almost 7.7 times as much as the annual operating expenses



- Since KSD is established under the FISCMA and its operation and management are regulated and supervised by the several laws including the Act on Management of Public Institutions under which the entrance of general business is controlled, the general business risk involved with KSD is extremely limited

### 3. Rating of the Principle : Observed

#### **Principle 16** Custody and investment risks

##### 1. Gist of Principle

- An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investment should be in instruments with minimal credit, market, and liquidity risks

##### 2. KSD's Key Practices for Observance

- KSD strictly segregates its proprietary assets from participants' and participants' customers' assets in accordance with the FISCMA and internal regulations
  - Participants and participants' customers' assets are kept and managed safely and separately in a legal ledger, the depositor's account book, based on the internal control mechanism
  - ※ KSD, as a CSD and SSS, does not separately designate a custodian for the custody of deposited securities, and performs the safekeeping and settlement of securities by itself
- In accordance with the Fund Management Standards, KSD's cash assets and participants' collateral are deposited in eligible

financial institutions<sup>13)</sup> as per source of fund, and the corresponding eligibility is assessed every half year

- For the assets management, KSD mainly relies on short-term investment and is always ready to make any collateral immediately cashable in preparation for any participant's default
- Fund is only invested into the safe assets<sup>14)</sup> within the scope in connection with the asset allocation plan which is established by prior consultation with the Risk Management Team and deliberation of Fund Management Committee

### 3. Rating of the Principle : Observed

## **Principle 17**      **Operational risk**

### 1. Gist of Principle

- An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfillment of the FMI's obligations, including in the event of a wide-scale or major disruption

### 2. KSD's Key Practices for Observance

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13) Only banks or dealer/brokers such as securities firms are eligible. No one institution may be commissioned 15% or 10% of total funds, respectively.

14) In case of investing for more than 3 months, fund shall be invested in bonds rated not less than AA-, or commercial paper rated not less than A1

- KSD classifies the source of risks into 4 categories in accordance with the Internal Risk Management Regulation : personnel, system, process and external event risk
  - For all of business processes, 248 risks are identified, controlled, and monitored.
  
- Operational risk is managed by the risk management organization<sup>15)</sup>, and policy making and validation of adequacy is periodically conducted by the Risk Management Committee composed of internal and external experts
  - KSD daily monitors, and weekly and quarterly checks the operational risk and reports the result thereof to the CEO, the standing auditor and the chairman of the Risk Management Committee
  - All compliance of laws and regulations with respect to KSD's services are examined by internal and external auditing
  
- KSD examines actual processing capacity and server operating rate of its IT system each month, and analyze the status of interruptions, if any, each quarter, against which countermeasures are set up
  - At least once a year, KSD conducts the drill in response to IT system outage supposing emergency situations
  
- KSD prepares BCP according to the level of damages in preparation for disasters including fire, earthquake, power outage, and other force majeure events including war or civil commotion
  - BCP is activated by S level<sup>16)</sup> event which requires beyond

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15) The Risk Management Committee, the Risk Management Team, and the persons in charge of risk of each department(called as URM)s

16) Serious interruption of critical services or information system, which not less than 3 hours of suspension is anticipated

normal recovery of operations.

- BCP targets at recovery in 3 hours<sup>17)</sup> from the occurrence of an interruption for 20 major operations taking effects to each operation into account
- Each year, KSD establishes and implements a exercise plan of BCP, and the result thereof is reflected to BCP
- KSD registers and monitors the possible risks in RMS, and manages them as the same level with other risks
- Based on BCP, KSD has established emergency hot-lines with other FMIs such as FSC, Bank of Korea, KRX etc.

### 3. Rating of the Principle : Broadly Observed

## **Principle 18** Access and participation requirements

### 1. Gist of Principle

- An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access

### 2. KSD's Key Practices for Observance

- Qualifications for participation in KSD's deposit, clearing and settlement services are set forth in the internal regulations<sup>18)</sup> as approved by the FSC, and are made available to participants and the public

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17) Like other domestic FMIs and financial institutions, KSD targets at recovery in 3 hours according to 'Regulation on Supervision of Electronic Financial Activities' of FSC, not in 2 hours set by PFMI

18) The Deposit Regulation, the Settlement Regulation

- Financial investment business entities, banks, insurance companies, foreign CSDs, etc. are qualified for a depositor
- A depositor who meets requirements<sup>19)</sup> set forth by KSD may be approved as a settlement member
- KSD constantly monitors the participants' compliance with participation requirements
- In addition, any participant that may brings about risks to the whole system by breaches of the participation requirements or financial unsoundness may be suspended or terminated by KSD

### 3. Rating of the Principle : Observed

## **Principle 19** Tiered participation arrangements

### 1. Gist of Principle

- An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements

### 2. KSD's Key Practices for Observance

- KSD, as a CSD, maintains the tiered participation arrangements by indirect participation in terms of the management of the account book as the legal ledger
- Pursuant to the FISCMA, KSD strictly segregates direct

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19) Financial soundness, adequate human resource and computer facilities, social reliability, etc.

participants'(depositors' proprietary) position from indirect participants'(depositor's customers') position, which is managed only in an aggregate way, in the depositor's account book

- Individual positions of indirect participants are managed by the direct participants(depositors) through the customer's account book, the risk management of which is conducted by the supervisory authorities such as the FSC and FSS

### 3. Rating of the Principle : Observed

## Principle 20 FMI links

### 1. Gist of Principle

- An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks

### 2. KSD's Key Practices for Observance

- KSD, as a CSD and SSS, is linked with other FMIs including KRX, the Bank of Korea and foreign depositories<sup>20</sup>, etc.
- KRX is a trading venue and clearing house for the In-exchange Market Settlement and the Bank of Korea is a fund settlement bank, and foreign depositories are the custodians for depositing foreign securities invested by domestic individual investors
- ※ KSD has had no Interoperability Agreement with other FMIs
- KSD manages risks associated with FMI linkage through the internal risk management framework, and conducts mutual

20) JASDEC(Japanese CSD), Euroclear(ICSD), Clearstream(ICSD)

due diligence with foreign depositories

- However, KSD lacks direct FMI links associated with the system for risk-related analysis and management
- Particularly, information is hard to obtain from KRX, the largest shareholder of KSD, and Bank of Korea, the central bank of Korea, which makes it difficult to identify and manage risks that may be posed by FMI linkage

### 3. Rating of the Principle : Observed

<b>Principle 21</b>	<b>Efficiency and effectiveness</b>
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#### 1. Gist of Principle

- An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

#### 2. KSD's Key Practices for Observance

- The purpose of establishment<sup>21)</sup> of KSD and criteria of deposit, clearing and settlement are specified in the FISCMA, which are improved constantly through consultation with participants and market players
- Opinions are gathered regularly through 'Securities Settlement Council', 'Depositors Council' and 'Deposit & Settlement Development Consultation Council' composed of experts from the industry and academy
- Introduction or change of regulation and system is scrutinized thoroughly by means of public consultation and discussion with the supervisory authorities including FSC

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21) According to Article 294, KSD is established in order to promote a centralized deposit of securities, etc. and settlement subsequent to transactions and smooth circulation

- In 2012, KSD, KRX, and the Bank of Korea jointly set up 'The Plan for Securities Settlement System Advancement', and built and operate the New Securities Settlement System with help of the industry
  - KSD is appraised improving the efficiency and stability of the securities settlement infrastructure
- KSD sets up feasible target by establishing the mid- and long-term management goals and annual business planning, and examines its achievement through governmental and internal assessment system
- In addition, its business efficiency and effectiveness are evaluated through periodic and adhoc inspection of the supervisory institution and customer(participant) satisfaction survey

### 3. Rating of the Principle : Observed

<b>Principle 22</b>	<b>Communication procedures and standards</b>
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#### 1. Gist of Principle

- An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording

#### 2. KSD's Key Practices for Observance

- KSD, as a financial market infrastructure, provides efficient and reliable STP environment to the market participants by means of computer system connection or online.



- Communication procedure is standardized to TCP/IP for domestic communications,
  - For the settlement related to outbound transaction, KSD establishes and operates a message exchange system which could be linked directly to SWIFT network by adopting the communication procedures, standards and standardized messages compatible with foreign FMIs
- KSD is approved by ROC(Regulatory Oversight Committee) in October 2014 as LOU(Local Operating Unit) who manages local LEI codes in Korea, and operates "LEI-K" since 2015
- KSD works as a facilitator under the International Standard Organization(ISO), and supports standardization<sup>22)</sup> of domestic securities industry
  - KSD provides participants with the defined domestic standards about identification of financial instruments and counterparties, and conversion system between domestic and international standardized messages

### 3. Rating of the Principle : Observed

#### **Principle 23** Disclosure of rules, key procedures, and market data

##### 1. Gist of Principle

- An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by

<sup>22)</sup> Major Standards : ISO6166(ISIN), ISO9362(BIC), ISO10962(CFI), ISO15022, ISO20022 etc.

participating in the FMI. All relevant rules and key procedures should be publicly disclosed

## 2. KSD's Key Practices for Observance

- All service procedures and fees of KSD's deposit, clearing and settlement are in pursuant to the Deposit Regulation and the Settlement Regulation;
- These regulations may only be amended by resolution of the board of directors and approval of FSC after participants' consultation and internal verification
- These regulations are made available through KSD's homepage (<http://www.ksd.or.kr>) to participants and the public, and service manuals are distributed via exclusive system (SAFE+) to participants, who may attend to information sessions from time to time
- KSD's business and service information are disclosed on the public institutions management information retrieval system (<http://www.alio.go.kr>) and KSD's homepage (<http://www.ksd.or.kr>)
- Particularly, major fees such as deposit & settlement fees are determined and disclosed by the Market Efficiency Committee under the FISCMA after participants' consultation
- The result of the self-assessment for PFMI's will be disclosed in Korean and in English in accordance with disclosure guideline

## 3. Rating of the Principle : Observed