



23rd Cross Training Seminar
BALI - INDONESIA

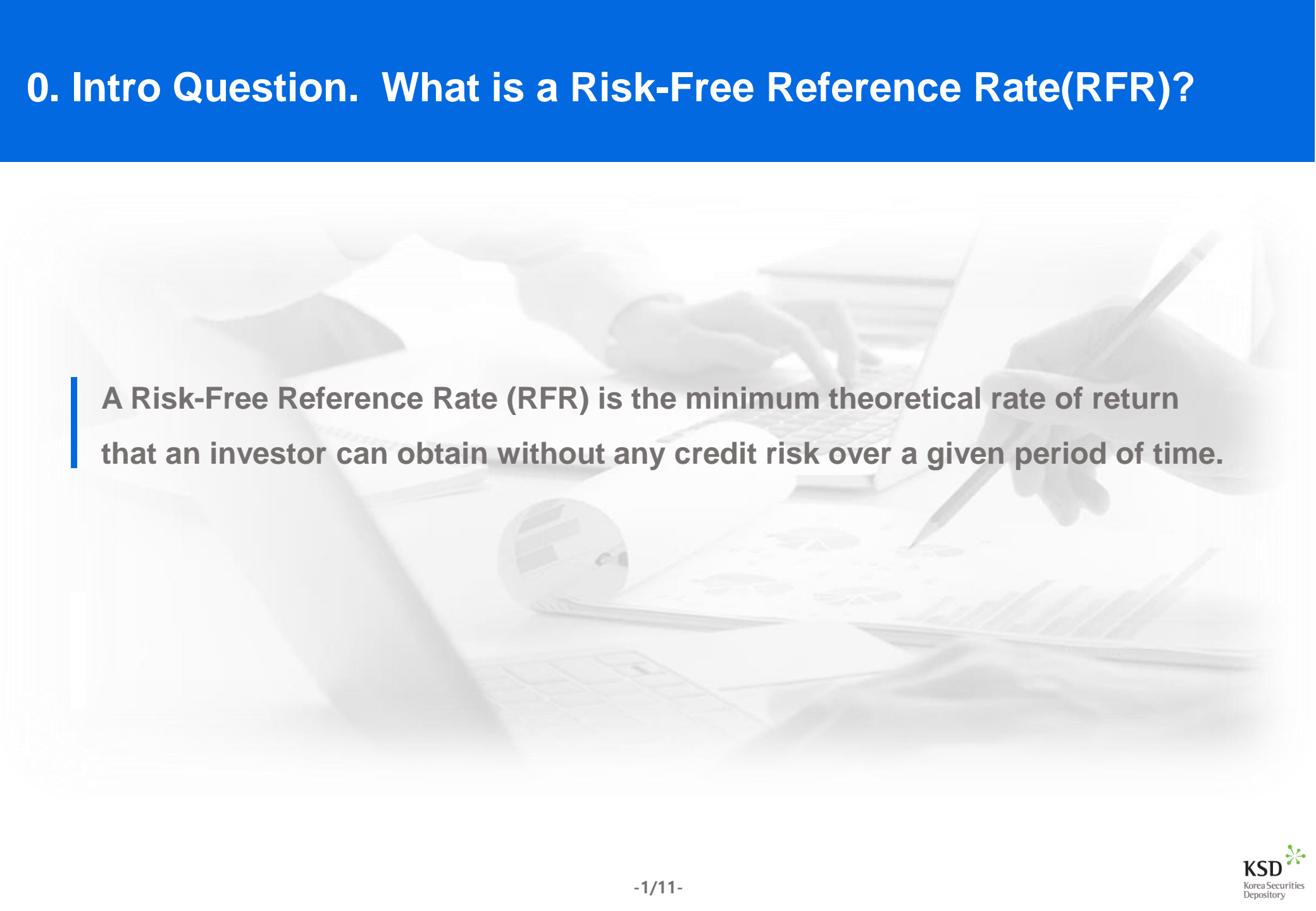
KSD New Service and Initiative

- Korea RFR Determination and Disclosure Service

June 2023

Korea RFR Dept. of KSD

0. Intro Question. What is a Risk-Free Reference Rate(RFR)?



A Risk-Free Reference Rate (RFR) is the minimum theoretical rate of return that an investor can obtain without any credit risk over a given period of time.

1. Why RFR? - Background of the Benchmark Rate Reform

After the 2012 investigation on Barclays revealed the widespread LIBOR manipulation, the benchmark interest rate reform was initiated on the global level.

- ✓ Submitted quote prices that were lower than the actual
- ✓ Quote price contributors and dealers colluded with each other.

In July 2017, the British Financial Conduct Authority (FCA) announced that it will not exercise the compulsory authority on panel banks to submit interest rates after the end of 2021.

- ✓ In December 2021, IBA* announced that it will cease the disclosure of LIBOR for some term products in US dollars(1W and 2M) and all term products(O/N, 1W, 1-2-3-6-12M) in four currencies (EUR, GBP, JPY, etc.).

* ICE Benchmark Administration (A subsidiary of the FCA)

As a result, countries needed to establish a risk-free reference rate (RFR) based on actual transactions to improve the stability and reliability of the financial market.

2. The Benchmark Rate Reform in Korea

In line with the trend of global benchmark rate reform, Korea also enacted the Act on the Management of Financial Benchmarks in 2019, which went into effect in 2020.

Main Content of the Enforcement Decree of the Act

I. Methods and procedures for calculating critical benchmarks

- Definition and description of critical benchmarks
- Methods and procedures for calculating critical benchmarks
- Frequency and methods of disclosing critical benchmarks
- Plans for changes and transitions

II. Description of critical benchmarks

- Explanation and use of critical benchmarks
- Methods and procedures for calculating critical benchmarks
- The possible impact of cessation may have on procedures and financial contracts

III. Conflicts of interest and internal control systems

- Organization
- Conflicts of interest and internal control systems
- Transparency of Benchmark Determinations
- Internal supervision

IV. Contributor of input data

- Requirements and selection of contributors
- Roles and training of persons in charge
- Internal control of the contributor
- Contingency plan

V. Controlling and supervising the contributor of input data

- Inspection of the contributor's submission
- Frequency and methods of the supervision
- Measures to be taken against the contributor's violation of obligation

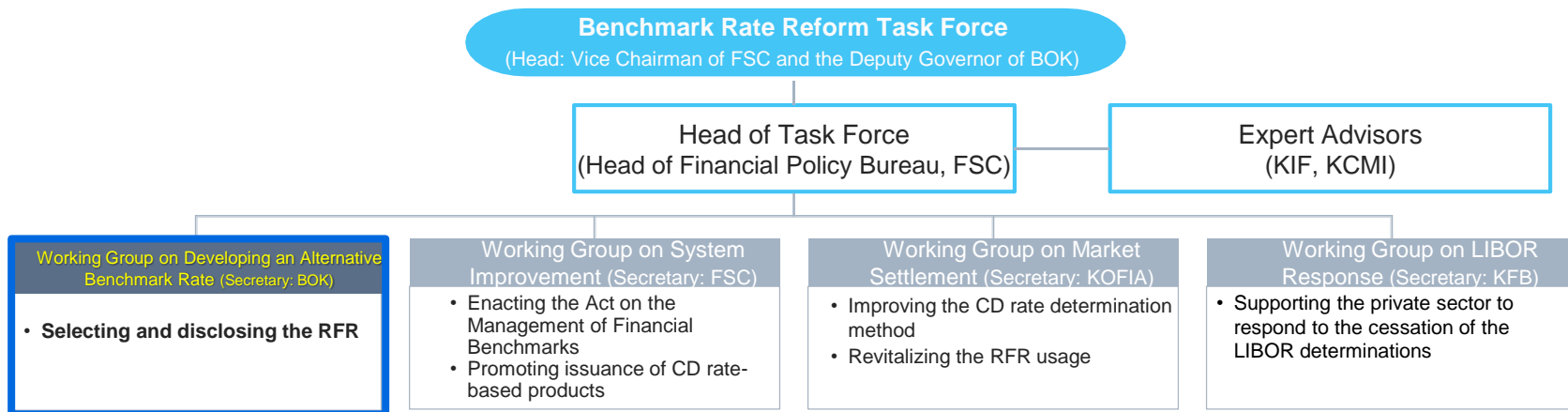
VI. Procedures for entrusting tasks of determination

- Trustee Information
- Code of conduct of the trustees
- Methods of supervision of the trustee
- Risk assessment of entrustment

2. The Benchmark Rate Reform in Korea

The Financial Services Commission(FSC) and the Bank of Korea(BOK) jointly launched the “Benchmark Rate Reform Task Force” and established 4 working groups.

Organization of the Benchmark Rate Reform Task Force



Working Group on Developing an Alternative Benchmark Rate



Made up of a steering group*, an advisory group**, and a market participant group*** (MPG), and is in charge of RFR selection and disclosure.

* FSC, BOK, FSS, KFB, KOFIA, and **KSD**

** KCMI, KIF, KRX, and brokerage firms

*** 13 banks(10 domestic, 3 foreign banks), 13 non-banks(9 securities firms, 3 asset management firms, KSFC)

2. The Benchmark Rate Reform in Korea

After two years of discussions and votes on the following criteria, the Working Group selected the Overnight Repo Rate as the Korea RFR with KSD as the administrator.

- ✓ 26 market participants voted to select repo rates for KTB and MSBs as RFR.
- ✓ KSD is the first CSD in the world in charge of RFR calculation and publication

Evaluation Criteria for the RFR Selection

Item (highest tier)	Selection Criteria (middle tier)	Sub-criteria
1 Qualitative excellence	Robustness, efficiency, reliability	1 Liquidity of the underlying market
		2 Diversity of participants in the underlying market
		3 Price discovery function in the underlying market and the possibility of interest rate distortion
		4 Interest rate volatility
		5 Resilience in crisis
2 Sensitivity to non-supply-and-demand factors	Representativeness of risk-free financing conditions	6 Conformity to risk-free interest rate characteristics
	Connection to the policy interest rate	7 Reflection of actual (risk-free) financing conditions of financial institutions
3 Benchmark rate switch, availability as a benchmark, and others	Technical factor sensitivity	8 Reasonable connection to changes in policy interest rates
	Sensitivity to market structure and regulatory changes	9 Sensitivity to quarter-end, year-end, reserve deadline, supply and demand of collateral security, etc.
	Ease of switching benchmark interest rates	10 Sensitivity to structural changes and regulatory factors in the underlying market
	Use in derivatives transactions	11 Ease of replacing CD rates
		12 Possibility of activating interest rate derivatives
	Potential use in other financial transactions	13 Suitability as a discount rate for the valuation of derivatives
	Easy understanding	14 Use in other financial transactions such as loans and bonds
International consistency	15 Easy understanding of interest rates by financial institutions	
		16 Consistency with RFRs of major countries and international acceptability

3. Main Content of Korea RFR (KOFR)

Name KOFR
(Korea Overnight Financing Repo rate)

Disclosure Website

www.KOFR.kr or KOFR.kr

A. Determination Methodology

- ✓ The “weighted average after removing the top and bottom 5%” as the RFR determination method by the unanimous vote of the working group
- ✓ The determination method best reflects the average financing cost of the market while maintaining consistency with major overseas countries.

B. Time of Disclosure

- ✓ Disclosing by 11 a.m.(the day after the transaction was made) to secure time for corrections that may arise due to errors in input data from the contributors (6 RP brokerage companies)

3. Main Content of Korea RFR (KOFR)

C. Corrective Disclosure

- ✓ Similar to overseas countries, corrections are allowed for errors exceeding 3bp on the day of disclosure by 2 p.m. Corrective disclosure cannot be made after the date of disclosure.

D. Alternative Benchmark

- ✓ If RFR provision cannot be carried out*, the RFR will discontinue, and the alternative benchmarks will come into effect and will be announced in the following order.

* (i) Loss of integrity and reliability of the RFR due to market disruption, (ii) Prolonged emergency due to wartime or computation errors

- 1 Banks or KSFC(Korea Securities Financing Corp.) call rate determined and disclosed by the BOK
- 2 Benchmark rate disclosed on the business day immediately preceding the first day of the cessation period
- 3 Interest rate determined by the committee

E. Inspection of Compliance

4. KOFR Determination and Disclosure Process

Objective

Establish a disclosure system with No Defects and No Errors

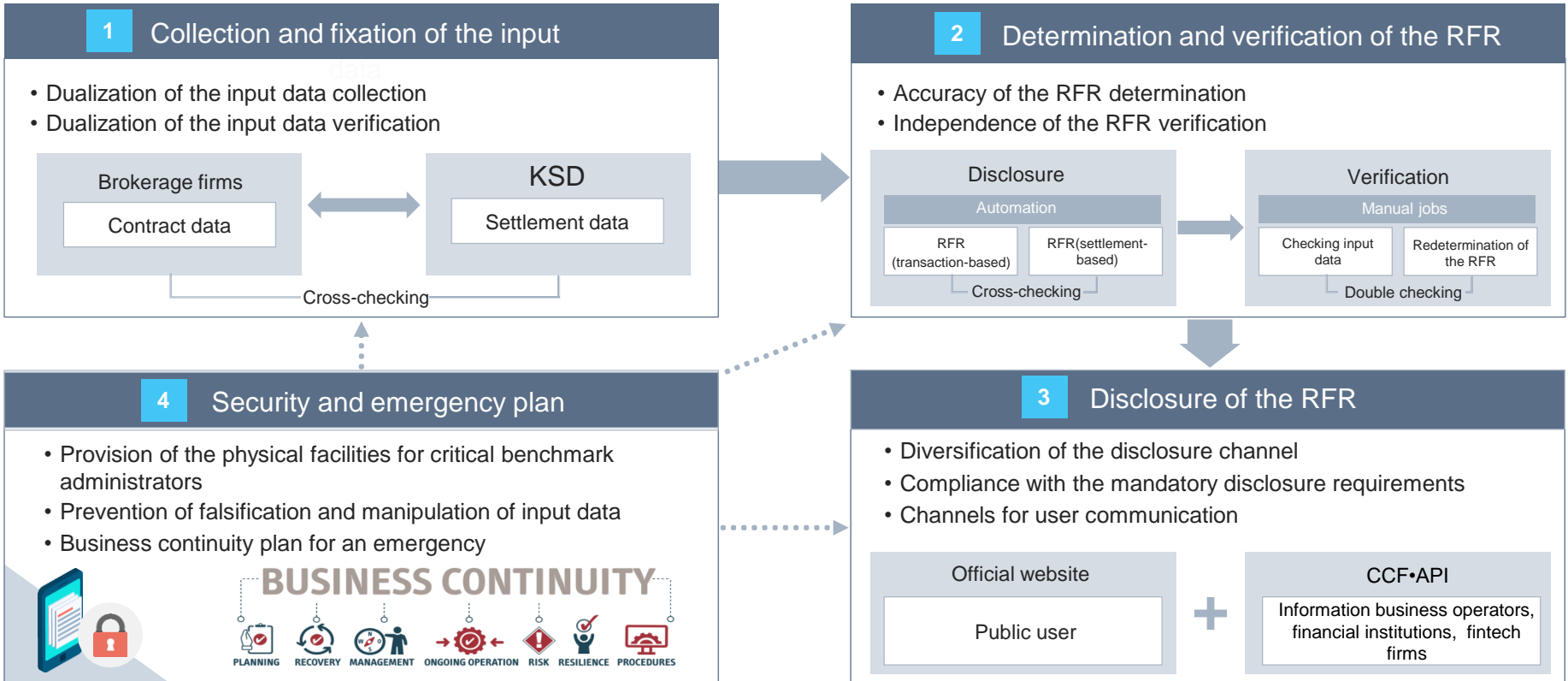
Key Considerations

Independence
Set up independent IT unit task groups

Accuracy
Dualize collection and verification

Transparency
Disclose all processes of determination

Convenience
Diversify disclosure channels



4. KOFR Determination and Disclosure Process

A. Collection of Input Data

- ✓ Collect actual RP transaction data through internal/external channels
- ✓ Self-inspect item information for selection of KTB, MSBs, and overnight transactions

- 1 Transaction Collect from RP brokerage firms after close of business (CCF/file upload)
- 2 Settlement Collect from the RP team after close of business (deploy)
- 3 Common Self-monitor bond item information and holiday information

B. Fixation of the Input Data

- ✓ Verify by cross-checking between transaction data and settlement data
- ✓ Select KTB, MSBs, and overnight transactions to fix the input data for the RFR determination
- ✓ Determining the RFR based on the input data(computerized/manual process) and cross-checking

- 1 ① Sort input data → ② Remove outlying values → ③ Calculate weighted average interest rate
- 2 Calculate the RFR manually and compare it with the computer-calculated RFR
- 3 After the final approval, request for re-verification of the RFR to the compliance team.

4. KOFR Determination and Disclosure Process

C. Re-verification of the RFR

- ✓ Manual re-verification of the input data and RFR
- ✓ The compliance team downloads the transaction and settlement data, selects the KTB, MSBs, and overnight transactions, and recalculates the RFR.

D. Disclosure of the RFR

- ✓ Disclose the RFR after the compliance team verifies the calculated RFR
- ✓ After the re-verification, the confirmation by the Head of the Determination and Disclosure Office and the approval by the Secretary-General, disclose the RFR at a designated time through various channels.

5. Key Issues Going Forward

A. RFR Use

Replacing the existing rate

The RFR can be used as a fallback rate in case of emergencies, such as in the cessation of the existing rate(“CD rate”) provision or loss of reliability.

Used as a benchmark

Available as a benchmark rate when signing new contracts, such as interest rate swaps(IRS) and floating rate notes(FRN)

B. RFR Revitalization

Derivatives market

Preparing plans for KOFR Futures listing and OIS transaction activation

Spot market

Promoting issuance of RFR-based FRNs and loans by government-owned banks and major banks

Term RFR

Developing Term RFR with various maturities



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Thank you.

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