

March, 2024

# TAKASBANK CHECK CLEARING SYSTEM ASSESSMENT DOCUMENT

Assessment of the Compliance of Takasbank's Check Clearing System with Fundamental Principles Determined by CPMI-IOSCO for Financial Market Infrastructures

The opinions and assessments provided in this disclosure reflect, entirely, the opinions of Takasbank and do not include any opinions belonging to the Capital Markets Board, the Banking Regulation and Supervision Agency, the Central Bank of Republic of Turkey or any other institutions. A copy of this document is published on Takasbank's corporate website ([www.takasbank.com.tr](http://www.takasbank.com.tr)).

## TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	5
SUMMARY OF THE MAJOR CHANGES OCCURRED SINCE THE LAST UPDATE OF THE DISCLOSURE.....	8
ASSESSMENT AGAINST THE CORE PRINCIPLES AND KEY CONSIDERATIONS.....	13
Principle 1: Legal Basis.....	13
Principle 2: Management.....	24
Principle 3: Framework For The Comprehensive Management Of Risks .....	48
Principle 4: Credit Risk.....	58
Principle 5: Collateral.....	63
Principle 7: Liquidity Risk .....	68
Principle 8: Settlement Finality.....	82
Principle 9: Money Settlement.....	88
Principle 12: Exchange of Value Settlement Systems .....	91
Principle 13: Default Rules and Procedures.....	92
Principle 15: General Business Risk .....	99
Principle 16: Custody and Investment Risk.....	104
Principle 17: Operational Risk.....	108
Principle 18: Access and Participation .....	126
Principle 19: Tiered Participation Arrangements.....	130
Principle 21: Efficiency and Effectiveness.....	132
Principle 23: Disclosure Of Rules, Key Procedures And Market Data.....	137

## ABBREVIATIONS

BRSA	Banking Regulation and Supervision Agency
BİAŞ	Borsa İstanbul A.Ş.
RBISEBS	Regulation of Banks on Information Systems and Electronic Banking Services, issued in the Official Gazette no. 31069 of 15/3/2020
IT	Information Technologies
PDC	Primary Data Center
CPMI	Committee on Payment and Market Infrastructures
DvD	Delivery versus Delivery
DvP	Delivery versus Payment
EFT	Electronic Funds Transfer System
EMIR	European Market Infrastructures Regulation
ESTS	Electronic Securities Transfer System
EU	European Union
FMI	Financial Market Infrastructure
IOSCO	International Organization of Securities Commission
ICAAP	Internal Capital Adequacy Assessment Process
BCMS	Business Continuity Management System
ITIL	Information Technology Infrastructure Library
PS	Payment System
PDPA	Personal Data Protection Authority
FCIB	Financial Crimes Investigation Board
SSS	Securities Settlement System
CCP	Central Counterparty
CSDI	Central Securities Depository Institution
CCSI	Central Clearing and Settlement Institution
PvP	Payment versus Payment
CMB	Capital Markets Board
SWIFT	Society for Worldwide Interbank Financial Telecommunication
CBRT	Central Bank of the Republic of Turkey
TRY	Turkish Lira
DSI	Data Storage Institution
BoD	Board of Directors

## I. EXECUTIVE SUMMARY

Takasbank was founded in 1992 as a Joint Stock Company subject to the provisions of the Turkish Commercial Code, under the leadership of Borsa İstanbul A.Ş. (Borsa İstanbul) with the title of İMKB Takas ve Saklama A.Ş. to provide clearing and settlement and custody service in the capital markets. After receiving ‘investment banking license’ in 1996 to offer banking services associated with the clearing and settlement and custody services, the Company acquired a ‘bank status’ and changed its title as ‘İMKB Takas ve Saklama Bankası A.Ş. With the entry into force of the Temporary Article 8 of the new Capital Markets Law no. 6362 on 30 December 2012, Takasbank obtained a ‘central clearing and settlement agency’ status and its title was changed in 2013 to ‘İstanbul Takas ve Saklama Bankası A.Ş.’. At the Bank's 22nd Bank Ordinary General Assembly Meeting held on 9 June 2017, the Bank's business name was changed to “Takasbank” or “Takas İstanbul”.

In Takasbank, having a paid-in capital of TRY 600,000,000.-, except for Borsa İstanbul, none of the other shareholders may, directly or indirectly, have a share of more than 5% of the Bank’s capital. While 64,1778% of the Bank’s capital belongs to Borsa İstanbul A.Ş.; 17,0427% of it belongs to 11 banks and 18,7795% of it belongs to 27 brokerage firms.

Having strategic importance for the banking and capital markets in Turkey, İstanbul Takas ve Saklama Bankası A.Ş. (Takasbank) has the licenses and authorizations as the “Central Clearing and Settlement Institution”, “Custodian for Pension Funds”, the “Portfolio Custody Service Institution for Investment Funds”, the “National Numbering Agency”, the “Central Counterparty Institution”, the “Payment and Securities Settlement System” and the “Investment Bank”. In this context, Takasbank is the only institution that is constantly supervised and audited by the Capital Markets Board (CMB), the Central Bank of the Republic of Turkey (CBRT), and the Banking Regulation and Supervision Agency (BRSA) in Turkey.

Pursuant to the Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493 (Law)”; Takasbank, one of the institutions that received operating permit from the CBRT for Equity Market Clearing System, Debt Securities Market Clearing System, and Check Clearing System services, as well as payment and securities settlement system authorization, is also defined as a “Critical Bank” due to its strategic importance in the banking and capital markets within the EFT-ESTS system.

Pursuant to article 5 of the Regulation on Check Clearing Operations, clearing management function, which was not included in the check clearing service, was added to clearing and settlement transactions ensuring payment of checks on account between bank branches, and Takasbank Check Clearing System, where all operations are managed from a single center, was established.

A guarantee mechanism was established under the Check Clearing System for use if the participants fail to fulfil their obligations, and guarantee mechanism contributions, calculated pursuant to the principles determined in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, were received as collateral for

utilization in the event of potential defaults. Termination of the event of default is limited to the guarantee mechanism contribution amount deposited by the participants.

Takasbank's Central Counterparty legislation and business model has been designed by observing the CPMI-IOSCO's (Committee on Payment and Market Infrastructures - International Organization of Securities Commission) core principles and the EMIR (European Market Infrastructures Regulation) document no. 648/2012 of the European Union and the technical standards no. (EU) 152/2013 and (EU) 153/2013 with regard to EMIR.

Takasbank has Equity and Debt Securities Market Clearing System, as well as securities settlement system, check clearing system, and payment system authorizations.

Among the payment systems addressed under 3 separate categories, i.e. Critically Important Payment Systems, Important Payment Systems, and Payment Systems of Limited Importance, critically important payment systems are expected to observe 18 principles issued by CPMI-IOSCO in respect of FMIs.

In this context, assessment of compliance was conducted in respect of Takasbank Check Clearing System, which is one of the Critically Important Payment Systems, for 18 principles regarding Critically Important Payment Systems.

Assessment result concerning Takasbank's Check Clearing System is explained at the end of every core principle by ticking one of the five rating scales given below.

<b>Observed</b> <input type="checkbox"/> (Observed)	<b>Broadly Observed</b> <input type="checkbox"/> (Broadly Observed)	<b>Partly Observed</b> <input type="checkbox"/> (Partly Observed)	<b>Not Observed</b> <input type="checkbox"/> (Not Observed)	<b>Not Applicable</b> <input type="checkbox"/> (Not Applicable)
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In the assessment methodology published by CPMI-IOSCO in December 2012, separate question sets recommended for use in assessing each key consideration have also been published. These questions are collectively presented as an attachment to this report. Hence, it should be kept in mind that explanations made in the subsequent pages with respect to each core principle on the basis of the key considerations are formed within the framework of the questions.

In the assessment we made as Takasbank to determine the compliance level of securities settlement systems operating in Turkey with 18 critical principles, that are stipulated by CBRT in the CPMI-IOSCO report to be implemented for securities settlement systems and that concern Check-Clearing matter, we have concluded that Bank status is 'observed' with 22 basic principles and that the other 3 principles are not applicable to the Bank. Besides, it has been concluded that, out of 6 other principles that do not directly concern check clearing matter, 5 could be considered as "not applicable" and 1 could be considered as "partly observed". The level of compliance on the basis of principle is shown in the table below.

<b>PRINCIPLE</b>	<b>OBSERVED</b>	<b>BROADLY OBSERVED</b>	<b>PARTLY OBSERVED</b>	<b>NOT OBSERVED</b>	<b>NOT APPLICABLE</b>
<b>1- Legal Basis</b>	√				
<b>2- Management</b>	√				
<b>3- Infrastructure For The Comprehensive Management Of Risks</b>	√				
<b>4- Credit Risk</b>	√				
<b>5- Collateral</b>	√				
<b>6- Margin</b>					√
<b>7- Liquidity Risk</b>	√				
<b>8- Settlement Finality</b>	√				
<b>9- Money Settlement</b>			√		
<b>10- Physical Deliveries</b>					√
<b>11- Central Securities Depositories</b>					√
<b>12- Exchange-Of-Value Settlement Systems</b>					√
<b>13- Default Rules and Procedures</b>	√				
<b>14- Segregation And Portability</b>					√
<b>15- General Business Risk</b>	√				

<b>PRINCIPLE</b>	<b>OBSERVED</b>	<b>BROADLY OBSERVED</b>	<b>PARTLY OBSERVED</b>	<b>NOT OBSERVED</b>	<b>NOT APPLICABLE</b>
<b>16- Custody And Investment Risk</b>	√				
<b>17- Operational Risk</b>	√				
<b>18- Access And Participation</b>	√				
<b>19- Tiered Participation Arrangements</b>					√
<b>20- FMI Links</b>					√
<b>21- Efficiency And Effectiveness</b>	√				
<b>22- Communication Procedures And Standards</b>	√				
<b>23- Publication Of Rules, Key Procedures And Market Data</b>	√				
<b>24- Disclosure Of Market Data By Trade Repositories</b>					√

Respectfully,

March 2024



## II. SUMMARY OF THE MAJOR CHANGES OCCURRED SINCE THE LAST UPDATE OF THE DISCLOSURE

This document is the version revised in March 2024 to assess the level of observance of CPMI-IOSCO Core Principles for Financial Market Infrastructures by Takasbank's Check Clearing System. Major changes since the last update are highlighted with respect to below:

**Principle 2: Management;** FMI should have corporate management regulations that increase its security and effectiveness, that are open and transparent, and that support financial stability and other matters in the interest of the public, as well as goals of relevant stakeholders. Pursuant to the principle in question;

- The announcement made with respect to Takasbank 2022-2024 Strategic Plan, information on committees operating under the Board of Directors, job descriptions of Units within the Internal Systems Department, and announcement on adoption and approval of Risk management model and methodology were revised,
- With respect to written management regulations ensuring responsibility and accountability, the phrase "Regulations that govern Bank administrators are Takasbank Human Resources Directive, Takasbank Ethical Principles and Social Media Policy Directive, Takasbank Conflict of Interest Policy Directive, and Takasbank Gifting Procedure, while responsibilities of administrators and Bank employees are addressed in detail in these regulations. Accountability channels and sanctions that might be faced by administrators and employees are addressed in the Disciplinary Committee Directive of the Bank." was added,
- In respect of explanation of accountability, references were made to Takasbank Integrated Activity Report, Bank's Articles of Association, general assembly minutes, and independent audit report, and it was stated that these were published on the website,
- "Central Counterparty Risk Management Implementation Principles Directive and Central Counterparty Collateral Management Implementation Principles Directive" were added to the risk management framework established and papers documented by the Board of Directors.

**Principle 3: Framework for the Comprehensive Management of Risks;** FMIs should have a sound risk management framework for comprehensive management of legal risk, credit risk, liquidity risk, operational risk, and other risks. Pursuant to the principle in question;

- Borsa İstanbul Group Emergency Action Plan, valid until 2023, was updated within 2023 so that it would be valid until 2029,
- Explanations for insurance policies in the description of risks, arising from interdependencies with other institutions, were updated,
- New articles were added to business continuity interruption scenarios.

**Principle 4: Credit Risk;** FMI should effectively measure, monitor, and manage its credit risks arising from its participants and the payment, clearing, and settlement transactions that it conducts. FMI should have adequate financial resources to fully cover the risks arising from each participant with a high degree of confidence. In addition, a CCP with more complex activities with a higher risk profile or with systemic importance in multiple jurisdictions, should maintain additional financial resources sufficient to cover needs arising in comprehensive stress scenarios, including but not limited to the default of two participants and their affiliates that would generate the highest total credit risk in extreme but plausible market conditions. Other CCPs should maintain sufficient financial resources to cover needs that will arise in consideration of the potential default of a participant and its affiliates that would at least generate the largest credit risk in the case of default under extraordinary but plausible market conditions. Pursuant to the principle in question;

- The clause “The credit risk may result either from the payment, clearing and settlement processes in the system, or the cash credit practices and treasury practices processes that are not directly related with clearing and settlement, but the system participants may be involved in.” was added to explanations regarding credit risk,
- The authority informed by the Risk Management Unit, to ensure that necessary actions are taken in case of any breach in the allocated risk limit and risk appetite, was revised as Senior Management and Audit Committee.

**Principle 5: Collateral;** An FMI that requires collateral to manage its or its participants’ credit exposure should accept collaterals with low credit, liquidity, and market risks. Such FMI should also establish and implement haircuts and concentration limits. Pursuant to the principle in question;

- The clause “A guarantee mechanism was established against potential defaults arising from risks concerning finalization of settlement transactions of participants. Liquidation levels of collaterals under stressed conditions, by means of parametric, non-parametric, or simulation-based statistical methods, are taken into consideration for haircut numbers to be used valuation of collaterals to be deposited for monthly updated contribution obligations.” was added to the description on operation of the collateral management system.

**Principle 7: Liquidity Risk;** FMI should effectively measure, monitor, and manage its liquidity risks. An FMI should maintain sufficient resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or 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 at least generate the largest aggregate payment obligation in extreme but plausible market conditions. Pursuant to the principle in question;

- The clause “Liquidity adequacy ratios, calculated pursuant to the banking legislation for Takasbank’s liquidity risk, are quite above legal lower limits. In addition, the difference of asset and liability items in maturity segments, which are monitored in weekly, monthly, quarterly, and longer periods, is calculated as positive; in other words, Takasbank does not have open positions in any maturity segment.” was added to explanations on liquidity risk,
- It was specified that integration of FAST into CBRT services, which were planned to be utilized, was scheduled,
- Guarantee mechanism size and net settlement obligation were compared and, also, composition of contributions in the guarantee mechanism was updated with respect to the stress testing study conducted for 2023.

**Principle 8: Settlement Finality;** An FMI should, at a minimum, provide clear and certain final settlement by the end of the value date (maturity date). Where necessary or preferred, an FMI should provide final settlement intraday or in real time. Pursuant to the principle in question;

- Paragraph 3 in article 22 titled “Settlement Finality” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules includes the provision “Any measure and decision stipulated by laws, including suspension, restriction, or permanent interruption of clearing and settlement transactions of the participant, shall be applicable to transfer orders input to the system following notification of Takasbank about such measure and decision.”, while it is stipulated in paragraph 6 that “Measures and decisions in paragraph 3 shall not be applicable to collaterals”.

**Principle 13: Default Rules and Procedures;** An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed in a manner to enable the FMI to take action in time and to fulfill its obligations in order to constrain losses and liquidity pressures. Pursuant to the principle in question;

- The clause “Default management testing is conducted once a year in order to test the executability of default management processes and to ensure their best level management for check clearing transactions. Default Management Committee determines the actions to be taken in the process and it is aimed to resolve the default pursuant to resources and rules determined in the legislation. Test results and the measures proposed to be taken, if any, are submitted also to the Board of Directors.” was added to the description of the principle.

**Principle 16: Custody and Investment Risk;** An FMI should safeguard its own and its participants’ assets and minimize the risk of loss concerning and delay in access to these assets. FMIs should invest in instruments with minimal credit, market, and liquidity risks. Pursuant to the principle in question;

- Takasbank Fund Management Strategy description was revised; in this context, the restrictions related with the investment of financial instruments and resources that will be used in the implementation of the Fund Management strategy were specified with reference to Takasbank Fund Management Strategies Directive; in addition, it was specified with respect to investment security that “requirements of markets, to which services were provided, for structure and utilization of FX amounts (USD, EUR) deposited to Takasbank one business day in advance concerning collateral, guarantee fund, or Borsa İstanbul Swap Market FX liabilities, were taken into consideration in determination of investment terms” and “Transaction collateral and guarantee fund amounts were directed to investment in the CBRT, Repo - Reverse Repo Market under Borsa İstanbul Debt Instruments Market, Borsa Istanbul Money Market, and large-scale banks to minimize credit risk pursuant to the best effort performance criterion”.

**Principle 17: Operational Risk;** An FMI should identify potential internal and external sources of operational risk and mitigate the effects of these by implementing suitable 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 recovery of FMI’s operations and fulfillment of FMI’s obligations in time, including in the event of wide-scale or major disruption. Pursuant to the principle in question;

- Matters on management of the operational risk were revised,
- Change management and project management operations are conducted in accordance with pre-defined procedures, while “IS Application Service Development Procedure” and “Continuous Integration Distribution and Release Management Procedure”, out of 4 procedures that were previously specified, were removed from the text,
- Matters on review, audit, and testing of systems, policies, procedures, and controls were revised, including operational risk management arrangements,
- Qualitative and quantitative operational reliability goals of Takasbank and the process for putting these in writing were regulated,
- It was stated that processes were defined within the scope of the information security policy, self-assessment was conducted considering compatibility of such processes with ISO 27001 certificate and the guide on “Cyber Resilience for Financial Market Infrastructures” and, in addition, the

process was monitored and improved through the independent penetration tests conducted annually and vulnerability scans performed monthly; and it was stated that change management and project management processes were defined in Information Security Directive and relevant regulations, and such documents were reviewed at least once a year,

- Description of business continuity plan was revised,
- The response, given to the question on the follow-up of fulfillment of reliability and emergency/contingency requirements for outsourced services, which should have been fulfilled by the FMI if such services had been provided by internal resources, likewise by critical service providers, was revised.

**Principle 18: Access And Participation;** An FMI should have objective, risk-based, and publicly disclosed criteria to ensure open and fair participation in the system. Pursuant to the principle in question;

- “Pre-Agreement Information Form” was added to the agreements to be signed by the participants to be included in the Check Clearing System,
- The clause “Pursuant to paragraph 2 of article 10 of system rules, if significant risks that may endanger the safe and uninterrupted operation of the clearing system occur due to failure of the participant to maintain participation requirements or to fulfill their obligations, it is authorized to permanently or temporarily terminate the activities of the participant on the system without granting any period.” was added to explanations.

**Principle 21: Efficiency and Effectiveness;** An FMI should be efficient and effective in fulfilling requirements (needs) of its participants and the market it serves. Pursuant to the principle in question;

- It was stated that Takasbank Satisfaction Survey, conducted for 2023, resulted in a high satisfaction rate of 98% for the Check Clearing System service,
- Details regarding Takasbank’s Strategic Plan were provided in respect of definition, accessibility, and assessment of objectives and goals.

**Principle 22: Communication Procedures and Standards;** 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 processes. Pursuant to the principle in question;

- It was stated that screening of SWIFT transactions, as well as EFT transactions, were automated to monitor national and international sanction lists, as well as adherence to SWIFT ISO 15022 and ISO 20022 standards by Takasbank systems.

**Principle 23: Disclosure of Rules, Key Procedures and Market Data;** An FMI should have clear and comprehensive rules and procedures and provide sufficient information to enable participants to fully understand the risks, fees, and other material costs they shall incur by participating in the FMI. All relevant rules and fundamental procedures should be disclosed to the public. Pursuant to the principle in question;

- It was stated that changes to be made in System Rules were initially submitted to the Board of Directors of the Bank for approval and then structural changes were submitted to the CBRT for approval, no structural change was implemented without obtaining approval from the CBRT, non-structural changes in system rules were notified to the CBRT within five business days,

- The clause “Takasbank Check Clearing System fees were increased most recently in January 2024. As the increase rate was determined, it was informed to the Board of Directors that many developments and additional infrastructure changes in terms of both personnel and in the technical sense to perform the provided service without interruption and fulfill assumed functions in full and, in this context, an increase was necessary in the check clearing commission for 2024 to maintain smooth system functionality and to cover incurred losses. October 2023 PPI was announced by Turkish Statistical Institute as 58.46% and it was decided to use the PPI rate as the check clearing fee increase rate pursuant to the resolution made in our Bank’s Board of Directors meeting no. 465 of 24/11/2023.” was added in respect of remuneration.

Finally, Internal Control and Compliance Unit was split into Internal Control Unit and Legislation and Compliance Unit due to the change in the organizational structure of Takasbank. In this scope, unit names were updated in documents within the scope of operations of the relevant units.

### **III.ASSESSMENT AGAINST THE CORE PRINCIPLES AND KEY CONSIDERATIONS**

#### **Principle 1: Legal Basis**

A Financial Market Infrastructure (FMI) should have a well-established, clear, transparent, and applicable legal basis in all relevant jurisdictions for each key element regarding its operations.

**Core Principle 1: Legal basis should provide a high degree of certainty for each material stage of FMI operations in all relevant jurisdictions.**

#### *Key elements and relevant jurisdictions*

S.1.1.1: What are the important elements within FMI operations, which require high degree of legal certainty (such as rights and interests in financial instruments, settlement finality, netting, cooperability, blocking and dematerialization of securities in a depository institution, Delivery versus Payment (DvP), Payment versus Payment (PvP) or Delivery versus Delivery (DvD) arrangements, collateral arrangements involving margin arrangements, and default procedures)?

Legal certainty is ensured for the Check Clearing System pursuant to the Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493 (Law), Regulation on Payment and Securities Settlement Systems (Regulation), and Regulation on Check Clearing Operations. In this context; the matters that require high level of legal certainty are clearly specified in the following legislation:

- In the Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493;
  - Under Article 10 titled “Transfer order, netting, and collaterals”;
    - Paragraph 1 states that the moment when a transfer order becomes irrevocable must be clearly determined and that a finalized transfer order cannot be revoked,

- Paragraph 2 states that the moment of entry of the transfer order to the system must be determined in system rules,
  - Paragraph 3 states that any measure and decision regulated by the law, preventing disposition of the fund, including suspension or permanent interruption of fund transfers, are applicable to transfer orders that will enter the system after notification;
  - Paragraph 4 states that, if the system operates pursuant to netting principle, transfer orders entered to the system before notification of the measure and decision, specified in paragraph 3, to the system operator, shall be included in the netting transaction,
  - Paragraph 5 states that funds and securities available in the settlement account of the participant on the date of notification of the measures and decisions, specified in paragraph 3, to the system operator, shall be used for fulfillment of outstanding obligations of the participant in the system,
  - Paragraph 6 states that the measures and decisions, specified in paragraph 3, shall bear consequences in terms of rights and obligations of the participant or the system operator in the system as of the notification moment of such measure and decision to the system operator,
  - Paragraph 7 states that the system operator may demand collateral to be used in the event of failure to finalize transactions in the system for any reason or failure of the participant to fulfill their obligations in the system, collaterals shall be monitored in a separate account, and the measures and decisions specified in paragraph 3 shall not be applicable to such collaterals.
- In the Regulation on Operations of Payment and Securities Settlement Systems;
    - Section 5 titled “Provisions on Risk Management” stipulates the manner of implementation of risk management framework, collateral, credit, and guarantee mechanisms,
    - Article 19 titled “Notice on implementation of article 10 of the Law” stipulates the notices to be made to CBRT.
  - In section 4 titled “Principles for Clearing and Settlement Transactions” of the Regulation on Check Clearing Operations;
    - Article 12 specifies the principles and procedures for clearing transactions,
    - Article 13 specifies the provisions to be observed in respect of settlement transactions and the need for establishment of mechanisms to be implemented in the event of failure of participants to fulfill their obligations to the system.
  - In addition, in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules;
    - Under section 3 titled “Principles for Clearing and Settlement Transactions” principles and procedures were clearly stipulated for;
    - clearing transactions and procedures in Article 14,
    - delivery of details to respondent participants in Article 15,

- provision and refund transactions in Article 16,
- netting transactions in Article 17,
- settlement accounts in Article 18,
- settlement transactions in Article 19,
- clearing and settlement date and period in Article 20,
- currency to be used in payment of settlement obligations in Article 21,
- settlement finality in Article 22,
- Under section 4 titled “Principles for Collaterals and Guarantee Mechanism Contribution” principles and procedures were clearly stipulated for;
  - participation collateral in Article 23,
  - guarantee mechanism contribution in Article 24,
  - guarantee mechanism contribution determination method in Article 25,
  - assets acceptable as guarantee mechanism contribution in Article 26,
  - guarantee mechanism contribution establishment in Article 27,
  - guarantee mechanism contribution valuation in Article 28,
  - guarantee mechanism contribution margin call in Article 29,
  - determination of valuation prices for assets corresponding to guarantee mechanism contribution in Article 30,
  - guarantee mechanism contribution utilization in Article 31,
  - accrual of interest on cash TRY as guarantee mechanism contribution in Article 32,
  - exercise of rights arising from guarantee mechanism contribution in Article 33,
  - guarantee mechanism contribution refund in Article 34,
  - guarantee mechanism contribution deposit and withdrawal transactions in Article 35
- Under section 5 titled “Default and Aggrievement Payment Transactions” principles and procedures were clearly stipulated for;
  - default principles in Article 36,
  - default interest in Article 37,
  - calculation of default interest in Article 38,
  - accrual, notification, and collection transactions in Article 39
  - aggrievement payment in Article 41

which were then submitted to the CBRT for approval upon approval of Takasbank Board of Directors, and announced to the participant via general letters. In addition, current version is published on Takasbank corporate website at all times.

S.1.1.2: What are the relevant jurisdictions for elements that are considered to be important in FMI operations?

Check Clearing Service is provided only in TRY currency through the banks operating in Türkiye. Therefore, Check Clearing Services is not directly governed by legal elements of a jurisdiction.

S.1.1.3: How does the FMI warrant that its legal basis (legal framework, FMI rules, methods, and agreements) ensures high level of legal certainty in all relevant jurisdictions for each key element of its operations?

- the Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493;
- the Regulation on Operations of Payment and Securities Settlement Systems;
- the Communiqué on Information Systems used in Payment and Securities Settlement Systems;
- the Regulation on Check Clearing Operations

comprise the framework for legal certainty and, within the scope of these legal regulations;

- implementation principles regarding the process were determined with İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that was submitted to the CBRT for approval. Structural changes, planned to be made in the system rules, are submitted to the CBRT for approval before implementation and they are implemented following approval. Non-structural changes in system rules are submitted to the CBRT for information purposes within five business days.

In addition, participant agreements, where rights and obligations of the participants and Takasbank concerning the system are determined, were submitted to the CBRT for approval in the capacity of the regulatory authority and the approved agreement is signed with each participant.

d) With respect to a FMI with a netting regulation; how does the FMI warrant that legal basis ensures that regulations on netting are enforceable?

It is regulated legally in article 10 titled “Transfer order, netting, and collaterals” the Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493 that if the system operates pursuant to the netting principle, transfer orders entered to the system before notification of the system operator in respect of any measure and decision regulated by law shall be included in the netting transaction.

It is stipulated in clause (ç) of paragraph 2 of article 7 titled “System Rules” of the Regulation on Operations of Payment and Securities Settlement Systems that methods to be employed for clearing and settlement of transactions in the system, as well as the principles for employment of such methods, should be included in the System Rules to be issued by the System Operator. In addition, in Section 4 titled “Principles for Clearing and Settlement Transactions” of the Regulation on Check Clearing Operations;

- Under article 12 titled “Clearing Operations”, the following matters are stipulated:
  - That checks, which are not physically presented to respondent participants, and which are printed pursuant to the communiqués issued by the CBRT and magnetically coded pursuant to check coding standards shall be processed in clearing houses,



- The matters to which the organization operating the Check Clearing System shall be a party to,
  - That details of checks belonging to other participants, brought to participant branches for the purpose of collection by the bearer, shall be submitted to respondent participants on electronic environment through the clearing house pursuant to the principles and procedures specified in the system rules,
  - That the participant, to whom the check is presented, is responsible for presentation of check details to the respondent participant on time,
  - That checks, presented through the clearing house, shall be processed by obtaining authorization from the respondent participant,
  - That authorization transactions shall be finalized within the same day,
  - That, if authorization transactions for checks presented through the clearing house cannot be finalized, such checks shall be processed like other honored checks,
  - That participants should be notified by the respondent participants regarding checks processed like honored checks due to the failure to receive authorization, specifying participant code, branch code, account no., check no., check amount, and name of branch submitting the check for collection in writing by the time determined by the System Operator in the system rules, to submit information to the clearing house in respect of checks returned after obtaining authorization on the date of clearing,
  - That, if it is identified later that checks, which are processed as honored checks due to the failure to finalize authorization procedures, shall not be paid for any reason, respondent participant shall promptly notify the relevant participant in writing and refund transactions shall be made at the latest within three business days from the date of notification,
  - That authorization transactions shall be conducted pursuant to the Regulation on Check Clearing Operations and the principles specified by the system operator in the system rules,
  - That checks issued by a participant in favor of another participant cannot be submitted to the clearing house,
  - That other matters concerning clearing transactions and trading hours shall be determined in the system rules,
  - That implementation principles concerning clearing and settlement transactions should be stipulated in the System Rules to be issued.
- Under article 13 titled “Settlement Operations”, the following matters are stipulated:
- That debt balances of participants, calculated pursuant to the principles in abovementioned article 12 of the Regulation on Check Clearing Operations, shall be sent by debtor participants to the settlement account pursuant to the procedure and period specified in the system rules,

- That receivables of creditor participants shall be sent by the System Operator to the relevant account of the participant after completion of payments of the debtor participants,
- That net debt and receivable balances occurring as a result of daily clearing transactions are final and cannot be reversed by any means,
- That the System Operator shall establish mechanisms to be used in the event that participants fail to fulfill their obligations within the System,
- That principles and procedures for mechanisms to be established shall be determined in the system rules.

In Section 3 titled “Principles for Clearing and Settlement Transactions” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules (System Rules), which was issued in this scope;

- Article 13 specifies the general principles stipulated in articles 12 and 13 of Section 4 of the Regulation on Check Clearing Operations,
- Article 14 specifies the principles and procedures for clearing transactions,
- Article 15 specifies the rules concerning the manner of delivery of details to respondent participants,
- Article 16 specifies the manner of performance of authorization and refund transactions,
- Article 17 specifies the principles and procedures for netting transactions,
- Article 18 specifies the details of settlement accounts,
- Article 19 specifies the principles and procedures for settlement transactions,
- Article 20 specifies the periods to be observed in respect of clearing and settlement processes.

Check clearing transactions are conducted pursuant to the principles determined in the System Rules of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules.

e) When settlement is finalized by the FMI, how does the FMI ensure that the FMI’s legal basis supports settlement finality, including transfers of participants that fail to fulfill their obligations? Does the legal basis established for external settlement mechanisms used by the FMI, such as fund or securities transfer, support such finality?

The provision on irrevocable and irreversible nature of transfer order was stipulated in article 10 of the Law no. 6493 on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions. In addition, provisions on transfer finality, defined as “participant order ensuring that check details are transferred to the System with clearing packages for the purpose of transferring a certain amount of funds among participants within the system” in clause (aa) of paragraph 1 of article 4 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, were stipulated in detail in article 22

titled “Settlement Finality” of the same System Rules. In this context, there are systemic controls and obstacles within the scope of irreversibility of abovementioned transfer order as of the transfer or clearing packages to the system and the end of the clearing period. The system runs pursuant to the settlement finality principle in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules.

**Core Principle 2: An FMI should have rules, procedures, and agreements that are clear, understandable, and consistent with applicable legislation.**

S.1.2.1: Does the FMI conduct any study to confirm that its rules, procedures, and agreements are clear and understandable?

- “İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules”, stipulating the rules and principles applicable to the Check Clearing System, was primarily approved by the Bank’s Board of Directors, negotiated by the CBRT and took effect upon approval of the CBRT, and then announced to system participants and the public on our Bank’s website (in Turkish and in English).
- Before the “Check Clearing Transactions System Agreement” is signed with the participants, the “Pre-Agreement Information Form” highlighting the issues detailing Bank’s general transaction conditions of indispensable nature with regard to the parts of the System Rules that directly concern the participants is sent to the participants. In the form, it is stated that legal and financial assessment can be conducted and opinion can be expressed before the participant agreement is signed.
- Where necessary, detailed explanations are offered to participants via general letters and announcements with regard to how the regulations and arrangements specified in the System Rules are to be applied down to the lowest level.
- In the Annual Service Satisfaction Survey of Bank, questions on whether the rules, contracts and all procedures regarding the service received are clear and understandable enough are shared with the survey participants, and the process and rules are evaluated by the participants.

S.1.2.2: How does the FMI ensure that its rules, procedures, and agreements are consistent with applicable laws and regulations (for example, by means of legal opinions or analyses)? Is there any inconsistency that was identified and resolved? Are the rules, procedures, and agreements of the FMI reviewed or assessed by external authorities or organizations?

While preparing the system rules and contracts to be applied in the Check Clearing System, firstly, compliance with the following laws and regulations is taken into account.

- Law on Payment and Security Settlement Systems, Payment Services and Electronic Money Institutions,
- the Regulation on Operations of Payment and Securities Settlement Systems;
- the Communiqué on Information Systems used in Payment and Securities Settlement Systems;

- the Regulation on Check Clearing Operations,
  - Banking Law no. 5411,
  - the General Regulation on the Establishment and Operating Principles of Central Clearing and Settlement Institutions;
  - İstanbul Takas ve Saklama Bankası A.Ş. Central Clearing and Settlement Regulation.
- A. Legal opinions were received by means of meetings, briefings, formal letters, and e-mails, and there was no non-compliance. However, if requested by the relevant team, the Legislation and Compliance Unit and the Legal Consultancy may also carry out a separate assessment of compliance with the legislation. In addition, the international regulatory changes related to Bank's activities are also followed by the Legislation and Compliance Unit and are daily announced to the relevant Bank personnel in terms of both the possible effects expected and the provision of information. If it is needed to take an action in addition to such announcements, the unit that is affected by such legislation is directly contacted and the issue is assessed in detail. In addition, every directive and procedure change is submitted to the consideration of Legislation and Compliance Unit before approval, then directives and system rules are submitted to the Board of Directors for approval, while the procedures are submitted to the General Manager for approval and the Board of Directors is informed about implemented procedure changes. The Legislation and Compliance Unit also sends a periodic e-mail to all Bank personnel to inform them of the regulatory changes submitted to the Board of Directors for information/approval purposes; and updates the legislation and regulation lists accordingly.
- B. Details on review of rules, procedures, and agreements by external authorities and organizations are as follows:
- Provisional Article 3 of the Banking Law no. 5411 stipulates; *“As of the effective date of this Law, all banks, to which operating permits had been granted previously by the Authority, shall maintain their operations, which are performed in compliance with the laws predating the effective date of this Law. The Banks shall submit a declaration, indicating their areas of operation, to the Authority within two months from the effective date of this Law. The Banks must obtain authorization from the Authority before expanding their areas of activity within the scope of article 4 of this Law.”* In this context, an application was filed with the BRSA with our letter dated 18/05/2018 before starting to operate the Check Clearing System, and an approval was received for performance of check clearing transactions by our Bank with the BRSA decision no. 7863 of 28/06/2018, issued in the Official Gazette no. 30467 of 03/07/2018.
  - The fifth paragraph of article 9 titled “Operating Requirements .” of section 2 titled Establishment and Operations of Central Clearing and Settlement Institutions contains the provision which reads as follows: *“CCSIs shall notify the Board of their intention to conduct activities outside the scope of capital markets legislation”*. In this context, the Capital Markets Board was informed with our letter dated 11/05/2018 before starting to operate the

Check Clearing System and the Board notified our Bank with the letter no. 6191 of 31/05/2018, addressed to our Bank, that it received the information.

- In accordance with the Law on Payment and Security Settlement Systems, Payment Services and Electronic Money Institutions and in accordance with the provision “*If the system operator wants to establish a new system or if it plans to make a structural change within the existing system after receiving an operating permit, it must obtain approval from the Bank*” in paragraph 7 of article 9 titled “Operating Permit” of the Regulation on Operations of Payment and Securities Settlement Systems issued pursuant to the Law; an operating permit application was made to the CBRT to operate the Check Clearing System with our letter no. 10152 of 18/05/2018, and our Bank received an operating permit as a system operator with the CBRT decision no. 10617/20216 of 20/06/2018 issued in the Official Gazette no. 30463 of 29/06/2018. System Rules and participant agreements concerning operation of the system were submitted to the CBRT during the operating permit application process and approval was obtained within the scope of the operating permit.
- Approved participant agreement was signed individually with every participant. System Rules were announced to the participants with a general letter, and they are published on our corporate website.

S.1.2.3: Are the FMI have rules, procedures, and agreements required to be approved by an authority other than the CBRT before taking effect? If so, how and by whom?

“İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules” took effect upon being approved initially by Takasbank Board of Directors, and then by the CBRT. Structural changes to be made in system rules are subject to the approval of the CBRT, unapproved structural changes cannot be implemented. Non-structural changes in system rules are notified to the CBRT within five business days. There is no authority, whose approval is sought, other than these.

**Core Principle 3: An FMI should be capable of stating the legal basis concerning its operations clearly and understandably to relevant authorities, participants, and clients of participants, as necessary.**

S.1.3.1: How does the FMI state the legal basis concerning its operations clearly and understandably to relevant authorities, participants, and clients of participants, as necessary?

The arrangements at the level of Law and Regulation are published in the Official Gazette. The System Rules issued on the basis of such arrangements and entering into force with the CBRT’s approval and Takasbank Board of Directors’ Resolution are announced individually to the participants with a general letter and they are always accessible through our bank’s website (in Turkish and English).

In the Annual Service Satisfaction Survey of Bank, questions on whether the rules, contracts and all procedures regarding the service received are clear and understandable enough are shared with the survey participants, and the process and rules are evaluated by the participants.

**Core Principle 4: An FMI should have executable rules, procedures, and agreements in all relevant jurisdictions. There must be high degree of certainty that operations conducted by the FMI on the basis of these rules and procedures shall not be reversed, revoked, or postponed.**

*Enforceability of rules, procedures, and agreements*

S.1.4.1: Does the FMI conduct a study to confirm that rules, procedures, and agreements concerning its operations are enforceable in all relevant jurisdictions? (For example, by means of legal opinions and analyses)

The System Rules, which determine the rules and principles applicable under the Check Clearing System, are approved by the Bank's Board of Directors and reviewed in detail by the CBRT; unenforceable articles, business and transaction rules might be demanded to be amended, and approved by the CBRT upon finalization. In addition, the opinion and approval of Legislation and Compliance Unit and our Bank's Legal Consultancy are obtained for the System Rules and Participant Agreements.

In addition, rights and/or obligations were included in the agreements that are signed separately with each participant, and they were made into a contractual relationship that could be legally executed and followed up.

Check Clearing Service is provided only in TRY currency with banks operating in Türkiye. Therefore, it is not directly governed by legal elements of a jurisdiction within the scope of Check Clearing Services.

*Degree of certainty for rules and procedures*

S.1.4.2: How does the FMI ensure high degree of certainty that rules, procedures, and agreements shall not be reversed, revoked, or postponed? Are there circumstances where operations of the FMI subject to its rules, procedures, and agreements can be reversed, revoked, or subject to postponement? If available, what are these circumstances?

The finality and irrevocable nature of transfer order has been also made certain in article 10 of the Law no. 6493 on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions. Pursuant to article 10 of the said Law, the transfer order, clearing and settlement operations and payment transactions cannot be reversed and revoked, including the situations where the activities of the participants are temporarily or permanently suspended or the liquidation processes are initiated before the administrative and judicial authorities.

On the other hand;

- Within the framework of the Law on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions; the CBRT Administration Center Payment Systems Department is authorized to revoke the license/s in case of identification of any situation that is contrary to the legislation or the functioning of the system in the Bank's practices.

- The sixth paragraph of article 9 entitled “Operating Requirements” of the General Regulation on the Establishment and Operating Principles of Central Clearing and Settlement Institutions contains the provision which reads as follows: “CCSIs shall notify the Board of their intention to conduct activities outside the scope of capital markets legislation”. The Capital Markets Board may require Takasbank to not conduct such activities.
- Pursuant to article 77 entitled “Central Clearing and Settlement Institutions” of the Capital Markets Law no. 6362; the Capital Markets Board is responsible for the regulation, oversight and audit of the central clearing and settlement institutions, and is authorized to take any and all measures if and when deemed necessary.
- Pursuant to the provision in Provisional Article 3 of the Banking Law no. 5411, Banks must obtain authorization from the BRSA before expanding their areas of activity and the BRSA is entitled to take any measure as it deems necessary.

Before Takasbank launched the Check Clearing System operation,

- it was identified as the System Operator by the CBRT,
- Operation expansion approval was obtained from the BRSA,
- Capital Markets Board was informed about the operation and CMB affirmed that it received the information.

S.1.4.3: Is there a court ruling on unenforceability of activities or regulations within the scope of the FMI’s rules and procedures?

No.

**Core Principle 5: An FMI that conducts operations in multiple jurisdictions should define and mitigate risks that might arise from any conflict of norms between jurisdictions.**

(The following question shall be completed by FMIs that deal with laws of foreign countries.)

S.1.5.1: If the FMI conducts operations in multiple jurisdictions, how does it identify and analyse potential risks that might arise from the conflict of norms? In case any uncertainty arises with respect to enforceability of the FMI’s choice of law in relevant jurisdictions, does the FMI receive an independent legal opinion concerning the potential conflict of norms? How does the FMI address potential norm conflicts?

It was considered that our Bank does not deal with foreign jurisdiction laws within the scope of payment and securities settlement systems.

***Takasbank Check Clearing System Assessment Result for CPMI-IOSCO Principle 1***

Observed	Broadly Observed	Partly Observed	Not Observed	Not Applicable
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## **Principle 2: Management**

FMI should have corporate management regulations that increase its security and effectiveness, that are open and transparent, and that support financial stability and other matters in the interest of the public, as well as goals of relevant stakeholders.

### **Core Principle 1: FMI should have goals that highly prioritize security and effectiveness and that clearly support financial stability and other matters in the interest of the public.**

S.2.1.1: What are the goals of the FMI and are these goals clearly defined? How does the FMI measure its performance in terms of achievement of its goals?

Takasbank's future strategic goals and plans are determined with the Strategic Plan prepared for 3-year periods and approved by the Board of Directors. Our goals in the Takasbank Strategic Plan are categorized and clearly defined under 4 main aspects under the titles "strong financial structure", "effectiveness and depth of markets", "operational and technological excellence", and "organizational effectiveness and increasing group synergy". Goal achievement degree and Bank performance are regularly assessed by the Board of Directors as specified in the Strategic Plan. In this context, a Strategic Plan Progress Report is prepared as of year-ends and presented to the Bank's Board of Directors. In addition, the financial model, prepared in line with the goals in the Strategic Plan, is updated every year due to changes over time in balance sheet and income figures realized as of the year-end, as well as macroeconomic indicators that constitute baseline in preparation of the Strategic Plan.

The key corporate performance indicators have been determined based on the goals specified in Bank's strategic plan and the related initiatives; and the values obtained as a result of measurements allow Bank to measure its ability to reach its strategic goals. Key corporate performance indicators are measured annually and the results thereof are shared with the Senior Management.

Fundamental objectives and initiatives in Takasbank's Strategic Plan for 2022-2024 Period aims to protect the interests of our stakeholders with the objectives under the title "strong financial structure", contribute to national economy and sectoral development with the objectives under the title "effectiveness and depth of markets", ensure that our members/clients continue receiving high-



quality and uninterrupted service with the objectives under the title “operational and technological excellence”, and increase satisfaction and competencies of our personnel and synergy within Borsa İstanbul Group with the objectives under the title “organizational effectiveness and increasing group synergy”.

2022-2024 Strategic Plan document also contains worldwide trends for clearing and custody services, assessments on Turkish and global economy, information on Takasbank’s activity profile and financial performance, as well as SWOT analysis.

S.2.1.2: How do the FMI’s goals prioritize security and effectiveness? How do the FMI’s goals clearly support financial stability and other relevant public interest considerations?

A significant portion of 93 initiatives, defined under 11 main strategic goals of our Bank, emphasize security and effectiveness, while these projects and other studies regarding these initiatives are regularly monitored, measured, and reported to the Senior Management and the Board of Directors. Similarly, “effectiveness and depth of markets” and “operational and technological excellence” goals are among the goals defined to ensure financial stability and corporate sustainability, while there are defined initiatives in this area.

On the other hand, information security, systematic efficiency and business continuity are considered by Takasbank as the top-priority issues; and Takasbank’s processes were designed in compliance with ISO 27001 Information Security Management System, ISO 22301 Business Continuity Management System certificates, and ISO 20000-1 IT Service Management System Standard. These management systems are closely monitored by the Bank’s Senior Management. In addition, Takasbank has established an IS Continuous Improvement Management Procedure and an IS Demand Management Procedure in order to improve and further develop the Bank services and processes; and all improvement and development requests for all of the Bank’s services are submitted to the demand management committee comprising IT Managers, together with a feasibility report where necessary. Improvement and development requests are sorted in order of priority and importance and necessary enhancements are made in Takasbank IT infrastructure.

**Core Principle 2: The FMI should have written management regulations ensuring responsibility and accountability. These regulations should be disclosed to system owners, relevant authorities, participants, and, more generally, the public.**

#### *Management regulations*

S.2.2.1: What are the management regulations governing the FMI’s board of directors (or equivalent structure) and administrators? What are the responsibility and accountability channels within the FMI? Where and how were these regulations made?

In general, regulations governing the Board of Directors and other accountable bodies are “Turkish Commercial Code no. 6102 (TCC)”, “Banking Law no. 5411”, Capital Markets Law no. 6362, “Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493”, “Regulation on Operations of Payment and Securities Settlement Systems;”, “Takasbank Audit Committee Directive”, “Takasbank Corporate Governance Principles

Directive”, and İstanbul Takas ve Saklama Bankası A.Ş. Articles of Association established pursuant to TCC and the Banking Law. All responsibility and accountability channels were detailed in the mentioned regulations.

In addition, regulations that govern Bank administrators are Takasbank Human Resources Directive, Takasbank Ethical Principles and Social Media Policy Directive, Takasbank Conflict of Interest Policy Directive, and Takasbank Gifting Procedure, while responsibilities of administrators and Bank employees are addressed in detail in these regulations. Accountability channels and sanctions that might be faced by administrators and employees are addressed in the Disciplinary Committee Directive of the Bank.

The activities carried out by the Board of Directors during the year are evaluated by the General Assembly, i.e. the Bank’s highest decision-making body, and the Board of Directors is discharged at the General Assembly. The operating principles and procedures of Bank’s General Assembly have been specified in the Internal Directive on Operating Principles and Procedures of the General Assembly of İstanbul Takas ve Saklama Bankası A.Ş.; and this directive is published on Bank’s web page.

S.2.2.2: How does the FMI ensure accountability to system owners, participants, and relevant stakeholders?

Our Bank publishes its Integrated Activity Report, prepared annually, on the Bank’s website to inform all stakeholders. Integrated Activity Report comprises, along with their financial, environmental, and social aspects, Takasbank’s financial and non-financial performance results, strategy, integrated business model, prioritized matters of the Bank, its relationships with stakeholders, material risks and opportunities that it is exposed to in connection with its operations, as well as operations of the Bank in the field of sustainability. With the integrated activity reporting approach, Takasbank aims to inform its stakeholders about activities that it conducted in the relevant period, financial and non-financial resources used during its activities, economic, social, and environmental outcomes of its activities, and its future goals.

The Bank’s Articles of Association that contains roles and responsibilities of the Board of Directors and the Corporate Management Principles Compliance Report within the Annual Integrated Activity Report are published on the Bank’s website and disclosed to the public. In addition, policy documents such as Takasbank Donation Policy, Takasbank Profit Distribution Policy, Takasbank Sustainability Policy are made available to all stakeholders under “Corporate” title of the Bank’s website.

Furthermore, necessary disclosures are made to relevant stakeholders as a result of General Assembly meeting and documents concerning the general assembly, such as general assembly minutes, are published on Takasbank website.

In addition, the disclosures to be made to public with respect to risk management as included in Bank’s annual integrated report and solo independent audit report are also published on Takasbank website.

S.2.2.3: How are the management regulations disclosed to system owners, participants, relevant authorities, and, more generally, the public?

The Bank's Articles of Association that contains roles and responsibilities of the Board of Directors and the Corporate Management Principles Compliance Report within the Annual Integrated Activity Report are published on the Bank's website and disclosed to the public.

In addition, disclosures are made as a result of the General Assembly meeting and the minutes of general assembly meetings are published on Takasbank website.

In addition, the disclosures to be made to public with respect to risk management as included in Bank's annual integrated report and solo independent audit report are also published on Takasbank website.

**Core Principle 3: Roles and responsibilities of the FMI's board of directors (or equivalent structure) should be clearly defined and the FMI's board of directors should have written processes on its activities involving, processes for determination, resolution, and management of conflicts of interest between members. The Board of Directors should review both its own performance and the individual performance of each board member regularly.**

S.2.3.1: What are the roles and responsibilities of the board of directors (or equivalent structure) and are these roles and responsibilities defined clearly?

Roles and responsibilities of the Board of Directors are specified in detail in our Bank's Articles of Association, Turkish Commercial Code No. 6102, Banking Law no. 5411, the Capital Markets Law no. 6362 and the related secondary regulations and the Law no. 6493 on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions and the related secondary regulations. The members of the board of directors are subject to articles 393, 395 and 396 of the Turkish Commercial Code no. 6102, respectively governing the prohibition of participation in discussions regarding conflicts of interest, the prohibition of conducting business with the company and of borrowing from the company and the prohibition of competition, as well as the prohibitions specified in article 18 of the General Regulation.

It is the responsibility of the Board of Directors to ensure the establishment, proper functioning, suitability and adequacy of internal control, risk management and internal audit systems in the Bank in accordance with the relevant legislation, to secure the financial reporting systems, and to determine the powers and responsibilities within the Bank.

The Board of Directors continuously and effectively evaluates the degree of achievement of the Bank's targets, its activities, and its performance; monitors and controls the compliance of its activities with the relevant legislation, the articles of association, internal regulations and established policies.

Other major duties, authorities, and responsibilities of the Board of Directors are as follows:

a) To manage the Bank in line with its purpose, to conduct legal proceedings on behalf of the Bank in all kinds of businesses and operations concerning purpose and scope of the Bank, to use the title of the Bank and to represent and bind the Bank before partners, third parties, public authorities, and courts, to sign agreements on behalf of the Bank, to settle if necessary, to resort to waiver and arbitration,

- b) To determine necessary principles and operating policy for efficient and profitable performance of the Bank's operations,
- c) To identify principles, conditions, and limits of credits to be opened, resources to be gathered, and services to be provided by the Bank, as well as interest and commission rates and amounts,
- ç) To determine the limits for the Credit Committee and Head Office to extend secured and unsecured loans in line with the provisions of the Banking Law,
- d) To resolve loans under its authority and approve the decisions made by the majority of the Credit Committee,
- e) To demand any information and document concerning activities of committees under the Board of Directors, to review every matter that it shall deem necessary, and to constantly audit operations of committees,
- f) To issue annual budget of the Bank, to ensure account settlement following every accounting period, to issue the balance sheet and the profit-loss statement, as well as the annual integrated activity report and to submit these to the General Assembly for approval along with the profit distribution proposal, to take measures stipulated in the Turkish Commercial Code as necessary,
- g) To keep books required by Turkish Commercial Code, tax laws, and Banking Law, as well as other books required by the Bank, to have these certified pursuant to the legislation as necessary, to issue documents and keep all of these for necessary periods, issue other reports and documents, as well as financial statements, requested by legal authorities pursuant to legislative provisions and submit these to relevant official authorities,
- ğ) To resolve on purchase, rental, sale, and collateralization of immovable property that it deems necessary for affairs and collection of receivables of the Bank, to manage the capital market instruments portfolio of the Bank,
- h) To approve and implement regulations on credits, administration, organization, and services of the Bank,
- ı) To resolve on compromise, release, and cancellation matters that exceed the limits of authorizations granted to the Head Office,
- İ) To determine Bank staffing, to determine principles for salaries, bonuses, benefits, and allowances, as well as appointment, promotion, transfer, and dismissal of personnel, and to resolve on such procedures concerning Bank personnel under its field of authorization,
- j) To fulfill all other duties imposed by Turkish Commercial code and Banking Law, as well as other legislation, on boards of directors of banks, as well as all affairs and transactions other than those assigned by the mentioned legislation and Articles of Association to the General Assembly.

S.2.3.2: What are the procedures of the board of directors on activities involving processes to determine, resolve, and manage conflicts of interest between members? How were these processes documented and to whom were they disclosed? How often are these processes reviewed?

The principal components of the Bank's corporate governance policy are equality, transparency, accountability, and responsibility. Within the scope of the Bank's Corporate Governance Policy;

- Necessary measures are taken to ensure that the Bank's Senior Management and all levels of management fulfil their duties in a manner that is effective, fair, transparent, accountable and free of conflicts of interest. All levels of management are allowed to take the decisions required by their responsibilities that they have undertaken in the Bank's management. In the election or appointment of the members of the Board of Directors that will take office pursuant to the relevant legislation and the Bank's Articles of Association and bear the qualifications to make objective and independent assessments about the Bank's operations, it is required as a condition precedent that they should have the qualifications and meet the requirements stipulated in the relevant legislation; in addition, such members are evaluated in detail for any issues that may create any conflicts of interest within the scope of corporate governance practices.
- The Bank does not discriminate between its shareholders and its members that are not the shareholders of the Bank when it comes to determining the fee and commission tariffs in Banking operations. Relationships with shareholders and clients are conducted in a fair, transparent and accountable manner.

The Bank has established a Corporate Governance Committee comprising at least 2 members selected by the Board of Directors from and among the Board Members, in order to monitor the Bank's compliance with corporate governance principles, to make improvements and to submit recommendations to the Board of Directors in relation thereof. The committee identifies the conflicts of interest resulting from the failure in full compliance with the corporate governance principles, and ensures that necessary policies are established to manage such conflicts. In addition, the committee reviews important complaints and claims constituting the subject matter of corporate governance practices and presents to the Board of Directors its opinions and recommendations related thereof.

These processes are already documented in the Takasbank Corporate Governance Principles Directive; and the relevant legislation has been announced to all Bank employees. Furthermore, the Corporate Governance Principles Compliance Report contained in the integrated report is also disclosed to the public.

The Bank has prepared Takasbank Conflicts of Interest Policy Directive approved by the Board of Directors, which regulates the relationships of all Bank employees including the Board Members with members and with the shareholders. In addition, the Bank has also issued Takasbank Ethical Principles and Social Media Policy Directive approved by the Board of Directors and Takasbank Gifting Procedure within the knowledge of the Board of Directors in order to address the issue in detail from all aspects. These procedures and directives are announced to all Bank employees; and in case of amendments, the most recent version is first sent to the BoD for approval or information and then announced to all Bank employees, thus raising awareness within the Bank.

S.2.3.3: Describe the committees established to facilitate operations of the board of directors. What are the roles, responsibilities, and compositions of these committees?

Details on committees are provided below:

### **Remuneration Committee**

(1) The Board of Directors is responsible for approval, audit, and review of the remuneration policy to ensure an independent and effective remuneration system in the Bank.

(2) The Remuneration Committee, comprising Board Members, was established to oversee remuneration policies, processes, and practices of the Bank on behalf of the Board of Directors.

Appointment of members of the Remuneration Committee

(1) Members of the Remuneration Committee are appointed by the Board of Directors from the Board members.

(2) Remuneration Committee comprises at least two members and the Board of Directors assigns one of the appointed members as the chairman of the Committee.

Duties and authorities of the members of the Remuneration Committee

(1) Remuneration Committee is assigned with;

a) Establishment of the remuneration policy and its submission to the Board of Directors,

b) Monitoring and audit of remuneration practices on behalf of the Board of Directors,

c) Regular monitoring of compliance of remuneration policies with the risk appetite and the goals of the Bank, and effectiveness of remuneration policies,

d) Reviewing the remuneration policy at least once a year and submission of review results to the Board of Directors with a report,

e) Issuance of decisions to be submitted to the Board of Directors for approval in respect of remuneration,

f) Making recommendations to the Board of Directors in respect of fees to be paid to executives with administrative responsibility

(2) The Remuneration Committee may receive support from all relevant units and expert organizations, particularly units of the Bank that are in charge of internal systems, regarding its duty.

### **Audit Committee**

The Board of Directors shall appoint at least two members without executive roles, to be elected among its members, as Bank Audit Committee members to assist in performance of audit and supervision activities.

Authorities and responsibilities of the Audit Committee:

(1) The Audit Committee is assigned with and responsible for observing effectiveness and adequacy of the Bank's internal systems, operation of these systems, as well as accounting and reporting systems pursuant to the Banking Law and applicable regulations, and integrity of generated information on behalf of the Board of Directors; performance of necessary preliminary assessments in selection of independent audit firms and rating, valuation, and support service organizations by the Board of Directors; regular monitoring of operations of these organizations that are selected and contracted by the Board of Directors; ensuring consolidated maintenance and coordination of internal audit activities for partnerships subject to consolidation in accordance with regulations implemented with respect to the Banking Law.

(2) Pursuant to paragraph 1, the Audit Committee is appointed and authorized;

a) To oversee whether the provisions in this Directive and the internal policies and implementation procedures approved by the Board of Directors with regard to internal control, internal audit, and risk management are observed, and to make recommendations to the Board of Directors with respect to the measures required to be taken where necessary.

b) To establish communication channels enabling units within the scope of internal systems to directly contact the committee,

c) To observe whether the internal audit system covers existing and planned activities of the Bank and risks arising from such activities, to review the Bank's internal regulations on internal audit, to be implemented upon approval of the Board of Directors,

ç) To make recommendations to the Board of Directors for election of managers of units within the scope of internal systems, to provide opinion during dismissal of such individuals by the Board of Directors,

d) To obtain and consider opinions and recommendations of Senior Management in respect of internal systems,

e) To ensure establishment of communication channels that will ensure notification of internal infractions directly to itself or Internal Audit Unit or auditors,

f) To monitor whether auditors perform their duties independently and objectively,

g) To review internal audit plans,

ğ) To make recommendations to the Board of Directors in respect of qualifications to be sought in personnel to be assigned to units within the scope of internal systems,

h) To observe measures taken by the Senior Management and affiliated units in terms of the matters identified in the internal audit reports,

ı) To assess professional training levels and competency of managers and personnel assigned in units within the scope of internal systems,

i) To assess whether the necessary methods, tools, and implementing procedures are in place to identify, measure, monitor, and control risks that the Bank is exposed to.

j) Engaging in discussions with inspectors and independent auditors of the independent audit firm conducting the Bank's independent audit, pursuant to schedules and agendas to be determined, no less than four times per year in regular intervals,

k) To inform the Board of Directors about opinions and considerations of relevant Senior Management, personnel assigned in Risk Management, Legislation and Compliance, Internal Control, and Internal Audit Units, and the independent audit firm in respect of practices required for proper performance, ensuring effectiveness, and improvement of activities within the scope of its roles and responsibilities,

l) To review assessments of the internal audit firm and to obtain statement of relevant Senior Management in terms of identified inconsistencies within the scope of compliance of accounting practices of the Bank with the Banking Law and other applicable legislation,

- m) To assess independent audit results, annual and quarterly financial statements and associated documents, and the independent audit report with Senior Management and independent auditors, and to resolve other reservations of the independent auditor,
- n) To assess independence of rating institutions, independent audit firms including information systems auditors, and valuation firms, with which the Bank shall sign agreements, as well as their Board of Directors Chairman and members, auditors, managers, and personnel, in their activities associated with the Bank, to assess adequacy of allocated resources, to submit its assessments to the Board of Directors with a report, to repeat these operations regularly in no later than yearly intervals for valuation firms and quarterly intervals for other organizations throughout the term of the agreement if services are procured,
- o) To conduct risk assessment concerning support services to be procured by the Bank, to submit its assessments to the Board of Directors as a report, to repeat these procedures regularly, at least annually, throughout the term of agreement if services are procured, and also to monitor adequacy of services provided by the support service organization,
- ö) To observe whether the Bank's financial statements include all actual information and information that should be reflected, whether they were issued pursuant to the Banking Law and other applicable legislation, and to have identified errors and irregularities corrected,
- p) To consult with independent auditors in terms of whether the financial statements accurately reflect the Bank's financial standing, results of performed operations, and cash flows of the Bank, and whether they were issued pursuant to the principles and procedures stipulated in the Banking Law and other applicable legislation,
- r) To report activities performed within the period and outcomes of such activities to the Board of Directors in maximum semi-annual periods, to indicate opinions on measures that should be taken within the Bank, practices that should be implemented, and other matters deemed important in terms of maintaining the Bank's operations in safety,
- s) To follow whether those with the authority to extend loans are included in evaluation and decision making stages concerning loan procedures, a party of which is themselves, their spouses and children under their custody, as well as other real and legal entities that constitute a risk group with these individuals, and to establish communication channels to ensure notification of such matters to them.

### **Credit Committee**

The Committee comprises principal members, alternate members, and the Chairman. These individuals are elected among Board Members.

#### **Duties and Responsibilities**

The Board of Directors is authorized to extend loans. The Board of Directors may delegate this authority to the Credit Committee or the Head Office pursuant to the principles and procedures established by the applicable legislation and on the condition that determined limits are not exceeded.



With respect to limit allocation proposals that are deemed appropriate by the Head Office; the CEO is authorized to approve those under the authority of the Head Office and the Credit Committee is authorized to approve those under the authority of the Credit Committee. The Head Office may also submit such proposals directly to the Board of Directors.

### **Corporate Management Committee**

The Bank establishes a Corporate Governance Committee comprising at least 2 members to be selected by the Board of Directors from and among the Board Members, in order to monitor the Bank's compliance with corporate governance principles, to make improvements and to submit recommendations to the Board of Directors in relation thereof. It is essential that the Committee Chairman is an independent Board member; and the other member(s) is selected from among the Board Members that have no executive duties.

The Committee observes the management of the Bank by the Senior Management in a responsible, fair, transparent, and accountable manner in line with established targets, governing Laws and regulations issued with respect to them, articles of association, internal regulations of the Bank, and ethical principles for banking, so that rights and interests of all stakeholders and shareholders, as well as account holders, are protected.

Duties of the Corporate Management Committee:

- a) It assists the Bank's Board of Directors with establishment of the Bank's mission and vision, observes performance of the Bank's operations in compliance with such established mission and vision.
- b) It evaluates whether the Bank's Senior Management shares the importance and benefits of having good management practices with the personnel and whether an efficient and effective corporate management culture is established in the Bank, and makes recommendations to the Board of Directors in this regard.
- c) It leads establishment of corporate values and ethical principles, and supports relevant studies.
- ç) It identifies the conflicts of interest resulting from the failure to comply fully with the corporate governance principles, and ensures that necessary policies are established to manage such conflicts.
- d) It follows establishment of appropriate communication channels to ensure safe submission of acts and transactions, which do not comply with corporate values and ethical principles, by the personnel to relevant authorities within the Bank.
- e) It evaluates adequacy of the resources to be allocated for implementation of Bank policies and ensuring compliance.
- f) It follows the processes of development and updating of the standards, policies, instructions and implementation procedures with respect to the Bank's operations and transactions.

g) It makes recommendations to the Board of Directors in terms of establishment of committees, which are not legally required to be established, to increase effectiveness in Bank activities and to assist the management.

ğ) It evaluates social responsibility projects and submits projects, which are deemed suitable, to the Board of Directors.

h) It reviews important complaints and claims constituting the subject matter of corporate governance practices and presents to the Board of Directors its opinions and recommendations related therewith.

ı) It issues the Corporate Management Compliance Report and submits the report to the Board of Directors.

i) It makes recommendations to the Board of Directors in respect of remuneration principles, including bonus and premium payments of Board members and senior executives, in consideration of the long-term goals of the Bank.

### **Central Counterparty Risk Committee**

The Committee comprises two independent members of the Board of Directors, two members to represent CCP members, and one member to represent the clients of CCP members.

#### **Duties and Responsibilities**

It provides advisory opinion to the Bank's Board of Directors on matters regarding CCP regulations and management of CCP risks in accordance with the Capital Market Law.

In the CCP Risk Committee, important matters that may affect markets, to which CCP services are offered, such as;

- a) Important changes to be made in CCP membership types and criteria,
- b) Important changes to be made in initial margin and variation margin calculation methods and models used in markets, to which CCP services are provided,
- c) Important changes to be made in guarantee fund calculations,
- ç) Important changes to be made in collateral valuation methods or collateral compositions,
- d) Important changes to be made in assets accepted as collateral,
- e) Stress test results and measures to be taken in this scope,
- f) Backtesting results and measures to be taken in this scope,
- g) Important changes to be made in calculation and utilization of amounts allocated or committed from Takasbank capital to CCP default management resources,
- ğ) Important changes to be made in directives and procedures concerning CCP default management,
- h) Starting to offer CCP services in new markets or capital market instruments,

- 1) Utilization of insurance CCP default management,

are discussed, and matters and contents to be recommended to the Board of Directors are resolved.

Other committees that were established, despite not being directly affiliated with the Board of Directors, are as follows.

### **IS Strategy and Guidance Committee (ISSGC)**

- (1) IS Strategy and Guidance Committee comprises General Manager, deputy general managers, IT unit representatives, Financial Services and Reporting Department in charge of Takasbank corporate strategies and budget planning, Human Resources Department, Internal Systems Department, and Legal Affairs Department managers.
- (2) ISSGC is responsible for;
  - a) In line with the IS Strategy Plan, overseeing whether the IS investments are used appropriately and the bank's business objectives and IS objectives are compatible with each other, and reporting to the Board of Directors at least once a year within the scope of the Strategic Plan Progress Report in respect of these matters,
  - b) Observing consistency and relationship of IS strategies and business strategies, reviewing chapters of Takasbank Strategic Plan on IS Strategies at least once a year, and ensuring revision and submission to the Board of Directors for approval as necessary,
  - c) Determination of the order of priority of IS investments and projects,
  - ç) Monitoring the status of ongoing IS projects,
  - d) Resolution of resource conflicts between projects,
  - e) Offering necessary guidances to ensure legal compliance of IS architecture and IS projects,
  - f) Monitoring service levels concerning IS services.
- (3) ISSGC convenes at least twice a year, evaluates and monitors matters under its responsibility, and makes necessary decisions.
- (4) Project and Program Management Team acts as the reporter of ISSGC.

### **Information Systems Continuity Committee (Business Continuity Management Committee)**

- (1) Pursuant to the principle that, in the corporate sense, continuity management system cannot be independent from information system continuity at the Bank, Business Continuity Management Committee and Information Systems Management Committee means the same committee. The Committee comprises Business Continuity Manager of the Bank, information systems and crucial business unit representatives determined by the CEO, Human Resources Department manager, Information Security Manager, Process and Quality Team manager, Internal Systems Department managers, and Legal Consultancy Department manager.
- (2) The committee is liable;

- a) Declaring a crisis situation by taking into account all the factors related to the events that occurred, deciding on the commissioning of the Information Systems Continuity Plan, and ensuring coordination with other rescue, continuity and response teams,
- b) To act as a consultant in activities within the scope of planning, implementation, control and improvement of the BCMS,
- c) To evaluate the applicable legal and regulatory requirements regarding the continuity of the Bank's activities and services, and the steps taken or to be taken regarding these, at periodic meetings.

(3) Committee Chairman is the Business Continuity Manager of the Bank and also responsible for Information Systems Continuity Management Process of the Bank.

(4) Committee Members are appointed by the General Manager for two-year periods. A member, whose period expires, can be appointed again.

(5) The Committee convenes at least once a year with Management Review Meetings and Bank Crisis Management Committee also attends these meetings unless a situation arises preventing it from doing so. The agenda for Management Review Meetings is established in Takasbank Business Continuity Procedure.

#### Crisis Management Committee

(1) In addition to its responsibilities and authorities within the scope of the Emergency Action Plan that is part of the Business Continuity Plan, the Crisis Management Committee is liable to;

- a) Assume the responsibility for management of business continuity events,
- b) Determine resolution strategies in case of business continuity events and to instruct relevant response teams as necessary,
- c) Plan how internal and external communication shall be made during a crisis and how management and stakeholders shall be informed throughout the crisis.

(2) If delegated by the BCMS Sponsor, the Crisis Management Committee may have one or several of the following authorities;

- a) Implementation of the plan for Yellow (serious) and Red (very serious) emergencies, among the emergencies within the scope of the Emergency Action Plan that is part of the Business Continuity Plan,
- b) Approving communication and conducting cooperation with the board of directors, relevant stakeholders, public and official institutions, regulatory and supervisory authorities within the scope of the Communication Plan,
- c) Providing financial resources concerning incident response.

(3) Crisis Management Committee comprises General Manager, Deputy General Managers; Human Resources Department Manager, Member Services and Corporate Communication Department Manager, and Business Continuity Manager.

## **Information Security Committee**

Information Security Committee is the work group comprising team and department managers. This committee comprises executive level members that shall particularly assist with the conduct of Takasbank Information Security Directive in line with the mission and objectives of Takasbank. Various administrative unit may also participate in the committee.

Information Security Committee comprises General Manager, deputy general managers of IT and business units, Information Security Unit Manager, Internal Systems Department Director and managers of units within the scope of internal systems, Human Resources Department managers, IT Infrastructure and Operations Department manager, Legal Affairs Department manager, and IS Internal Control Supervisor.

Fundamental responsibilities and authorities of the committee are as follows.

- a) Review and approval of the information security policy,
- b) Approval of the information assets classification guideline of the Bank,
- c) Approval of the information security awareness training program,
- ç) Assessment of all kinds of security incidents and findings,
- d) Assessment of information security aspects of Takasbank and its major internal projects,
- e) Assessment of information security planning, implementation, monitoring, and improvement activities,
- f) Assessment and allocation of resource needs for information security activities,

Matters that are discussed in the Information Security Committee and that concern application development systems and activities are also brought to the agenda in IT Assessment Meetings.

General Manager acts in the capacity of the chairman of the Committee.

## **Information Disclosure Committee**

1) The Committee is responsible for coordinating disclosure of information qualified as customer secret and bank secret, assessing eligibility of received disclosure requests, and recording such assessments in consideration of the principles of purposefulness, proportionality, and necessity, including disclosures to be made in circumstances where confidentiality obligation is legally excluded.

2) Permanent members of the committee are; Internal Internal Systems Department, Internal Control Unit, Legislation and Compliance Unit, Legal Consultancy Team, Information Security Unit, Internal Audit Unit, Member Services and Corporate Communication Department managers. Provisional members of the committee are the managers of the business line team that request information disclosure or from which information is requested, as well as the team that owns the relevant information.

3) During Committee meetings, considering the scope of information disclosure; permanent Committee Members may invite Senior Management, business and information technologies unit managers and/or information asset owners to attend and offer opinions in the Committee meetings in question.

- 4) Permanent members of the Committee elect a member as the Committee Chairman and a member as the Deputy Chairman of the Committee and submit the information to the Board of Directors.
- 5) If a Committee membership becomes vacant due to resignation, department/unit/team change, death, etc. of a member, the most senior member of that unit attends Committee meetings as a substitute to represent the unit in question until the manager of the relevant unit is appointed.
- 6) If the Committee receives an application concerning an information disclosure request, the Committee Chairman or the Deputy Chairman of the Committee calls a meeting. The meeting is held as soon as possible upon request.
- 7) Minutes are kept for all meetings held as a result of application and meeting minutes are compiled twice a year. Summary of activities concerning Committee operations are reported twice a year by the Committee to the Board of Directors.
- 8) Meeting minutes, resolutions, and information and documents shared within the scope of resolutions of the Committee are kept and retained by the Committee secretariat in compliance with Takasbank Documentation and Archiving Directive, available for audit by the Bank. Minutes are kept for 10 years and expired documents are destroyed.
- 9) Secretariat services of the Committee are performed by the Legislation and Compliance Unit.
- 10) Meeting agenda is determined by the Committee Chairman or the Deputy Chairman in consideration of recommendations received from the Committee members and announced to the members before the meeting. New items can be added to the agenda during the meeting upon proposal of members and the decision of majority.
- 11) Committee meetings are conducted by the Committee Chairman. Deputy Chairman of the Committee conducts the meetings, to which the Committee Chairman is unable to attend. The Committee convenes with a majority of members and makes its decisions with a majority vote of the attendants. If the votes are equal, the decision is made in line with the vote of the Committee Chairman or, in their absence, Deputy Chairman of the Committee. Committee meetings can be held with remote access by any technological means and meeting minutes can be shared on electronic media. Discussion and correspondence language of the committee is Turkish.
- 12) Committee members are liable to be honest and impartial in the decisions that they will make and in the opinions that they will provide, and to keep secrets that they may find out during Committee meetings. Committee members cannot use business and transaction secrets, which they have found out, to afford advantages to themselves or others.

#### Duties and authorities

- a) To coordinate requests for disclosure of information qualified as customer secret and bank secret in consideration of the principles of purposefulness, proportionality, and necessity pursuant to the Law, Regulation, and other applicable legislation,
- b) To assess eligibility of received information disclosure requests,
- c) To review whether information and documents, prepared by relevant business and information technologies units and information asset owner unit, are in line with the principles stipulated in the Law and the Regulation and the Takasbank Directive on the Information Policy, and to approve

disclosure of prepared documents before submission to the entity that requests information, if it is decided to disclose information,

These being the principal duties, the Committee is responsible for fulfillment and authorized to fulfill the duties in terms of information disclosure, imposed on the Information Disclosure Committee in the Law and the Regulation.

#### *Performance review*

S.2.3.4: What are the procedures established to evaluate the performances of the entire board of directors and individual board members?

The key corporate performance indicators have been determined based on the goals specified in Bank's strategic plan and the related initiatives; and the values obtained as a result of measurements made on an annual basis allow Bank to measure its ability to reach its strategic goals. Realizations with respect to the strategic plan and the related indicators are evaluated by the members of the Board of Directors on an annual basis.

The activities carried out by the members of the Board of Directors during the year are evaluated by the General Assembly, i.e. the Bank's highest decision-making body, and the Board of Directors is discharged at the General Assembly.

#### **Core Principle 4: The Board of Directors should have suitable members with necessary talent and motivation to ensure fulfillment of its duties.**

S.2.4.1: To what extent does the Board of Directors have the necessary competence and motivation to fulfill its duties? How does the FMI ensure this?

Board Members of the Bank are elected and appointed to Takasbank Board of Directors pursuant to the competence and criteria specified in the BRSA Law.

Board Members of the Bank are elected and appointed to Takasbank Board of Directors pursuant to the competence and criteria specified in the BRSA Law. In addition, Article 12 of the General Regulation on the Establishment and Operating Principles of Central Clearing and Settlement Institutions contains the provisions regarding the qualifications required for Board Members and the necessary number of members and Article 15 contains the provisions regarding General Manager and Deputy General Managers. According to Takasbank Corporate Governance Principles Directive approved by the Board of Directors, Takasbank Board of Directors is comprised of both executive and non-executive members. Except for the 'General Manager', there is no board member having an executive position in Takasbank and holding a seat in Takasbank Board of Directors. Pursuant to the articles of association and the corporate governance principles, there are also independent board members serving at the board of directors.

The activities carried out by the members of the Board of Directors during the year are evaluated by the General Assembly, i.e. the Bank's highest decision-making body, and the Board of Directors is discharged at the General Assembly.

S.2.4.2: What kind of incentives does the FMI offer to convince members with necessary talents to work in the board of directors and to avoid losing them? How do these incentives reflect on achievement of FMI's targets in the long term?

The incentives and services specified within the Bank's Articles of Association are provided for the Bank's Board Members.

The financial benefits such as attendance fees, wages, premiums, bonuses, etc. as well as other benefits in kind and in cash, dividends from the yearly profit and other rights and benefits that will be given to the Chairman and Members of the Board of Directors and their forms and amounts are determined by the General Assembly every year; and the travel, accommodation and representation expenses as well as insurance and similar guarantees that will be covered by the Bank are determined by the Board of Directors. The Chairman and Members of the Board of Directors as well as their spouses, children and dependent are allowed to benefit from the same healthcare benefits as the personnel.

**Core Principle 5: Roles and responsibilities of managers should be clearly identified. Managers of an FMI should have necessary experience, talent, and honesty to ensure that they can fulfill their responsibilities within the scope of operation and risk management of the FMI.**

*Roles and responsibilities of managers*

S.2.5.1: What are the roles and responsibilities of managers and are these clearly identified?

The roles and responsibilities of the management are clearly specified with reference to the roles and responsibilities set forth by the BRSA, CMB, and the CRBT legislation relating to the Payment and Securities Settlement Systems and the Bank's internal regulations. The roles and responsibilities are defined in the job descriptions prepared on a Team/Department and title basis. Job descriptions of teams are specified in Takasbank Organization and Duties Directive, while title-based job descriptions are specified under our Bank's Document Management System.

S.2.5.2: How are duties and targets of managers determined and assessed?

They are clearly specified with reference to the duties and targets set forth by the BRSA, CMB, and the CRBT legislation relating to the Payment and Securities Settlement Systems and the Bank's internal regulations. The roles and responsibilities are defined in the job descriptions prepared on a Team/Department and title basis.

In addition, goals are set on an annual basis within the framework of the Strategic Plan and Corporate Performance Management process; and they are measured periodically and the findings are presented to the Senior Management in the form of a strategic plan evaluation report.

*Experience, talent, and integrity*

S.2.5.3: To what extent do the managers of the FMI have the necessary experience, talent, and honesty so that they can fulfill their responsibilities within the scope of operation and risk management of the FMI? How does the FMI ensure this?



Managers have the experience, skills and integrity specified in the legislation. The criteria to be sought in the recruitment of personnel for Takasbank are separately specified on for each title in Takasbank's Human Resources Directive and the respective Regulations of Internal System Units. Performance assessments and appointments are made within the framework of role and job descriptions.

S.2.5.4: How is the dismissal process for managers executed, if deemed necessary?

The process of dismissal of managers is executed as per the Board of Directors' resolutions and the Audit Committee's decisions and in accordance with the articles of Takasbank Human Resources Directive that are related to voluntary resignation, retirement, disability and death, cancellation of the position, dismissal as a result of disciplinary action, absence of the conditions for employment, termination of employment contract and re-employment. The process of dismissal of Internal System Unit Managers is executed as per the resolutions of the Board of Directors and the Audit Committee.

In addition, regulatory and supervisory institutions are informed and their approvals are obtained when members of the Senior Management (Board of Directors, General Manager, Deputy General Managers, Internal Systems Department's Director and Internal System Unit Managers) start to take office and are dismissed. A written document titled Takasbank Senior Management Appointment Guideline was issued to specify how to operate this process.

**Core Principle 6: The Board of Directors should establish a clear and written risk management framework, which contains the risk tolerance policy, appoints responsibilities and accountability obligations for risk decisions, and defines the decision-making mechanism for crisis situations and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.**

*Risk management framework*

S.2.6.1: What is the risk management framework established by the board of directors and how is it documented?

The risk management framework of our Bank was established in consideration of the governing banking legislation, good practice guidelines, legislation on payment and securities settlement systems, and capital market legislation. The following documents, approved by the Board of Directors/General Manager of our Bank, i.e.;

- Takasbank Risk Management Regulation, Takasbank Operational Risk Management Procedure,
- Takasbank Directive on Internal Capital Adequacy Assessment Process and Takasbank Procedure on Stress Testing Program Policy and Practice Principles,
- Takasbank Business Continuity Directive, Takasbank Business Continuity Procedure, Takasbank Business Continuity Plan and dependent Borsa Istanbul Group Emergency Action Plan, Information Systems Continuity Plan, Epidemic Action Plan, Communication Plan,

- Takasbank Recovery Plan and Takasbank Orderly Wind-Down Plan,
- Directive on Credit Rating and Assessment Systems General Principles and the Procedures on Credit Ratings and Assessment Principles prepared separately for the banks, brokerage firms and other financial institutions in accordance with this Directive,
- Central Counterparty Risk Management Implementation Principles Directive and Central Counterparty Collateral Management Implementation Principles Directive

are the fundamental documents that establish the risk management framework of our Bank.

S.2.6.2: How does the risk management framework address the functions of containing risk tolerance policy of the FMI, appointing responsibilities and accountability obligations for risk-related decisions, and defining the decision-making mechanism for crisis situations and emergencies?

General risk management policy of the Bank comprises maintaining Bank activities by assuming reasonable risk manageably, controllably, and in a manner that balance would be established between income and expense.

Risk capacity of the Bank is determined in line with the capital adequacy policy. In this context, the maximum risk amount, which would not lead to any excess in minimum limits concerning legal capital amounts to be observed for the Bank to maintain all of its activities, is equal to the Bank's risk capacity.

The risk level, desired by the Bank to carry, collectively and for each type of risk that it deems important, to realize its goals and strategies in consideration of its risk capacity, means the risk appetite. General risk appetite and appetite for market, liquidity, interest rate risks arising from banking accounts were determined as "low" and risk appetite for credit risk and operational risk were determined as "high" by the Bank's Board of Directors.

The Bank determined risk limits, based on risk types that are considered as general and important, and signal values that qualify as an early warning system, in order to control the existing risk profile to avoid exceeding the general risk appetite and risk type-based risk appetites approved by the Board of Directors. Limits and signal values were established for liquidity, interest rate arising from banking accounts, market, credit risks, as well as operational risk, in conformity with the level of risk that can be assumed by the Bank, its activities, as well as size and complexity of its products and services. Development of such limit and signal values are regularly monitored and reported to the Senior Management by the Risk Management Unit.

İstanbul Takas ve Saklama Bankası A.Ş. Recovery Plan, issued pursuant to the Regulation on Operations of Payment and Securities Settlement Systems and approved by the Board of Directors, stipulates actions that might be taken in crisis situations and emergencies. In addition, there is also İstanbul Takas ve Saklama Bankası A.Ş. Orderly Wind-Down Plan approved by the Board of Directors, which contains the actions to be taken in case of realization of the scenarios given in the plan.

S.2.6.3: How are the decision making, approval, and review processes concerning the risk management framework executed?

The Risk Management Unit is responsible for designing and implementing the risk management system, and contributing to the processes of design, selection, implementation and pre-approval of the risk measurement models used within the scope of the Unit's operations, reviewing these models regularly and making the necessary changes.

The Board of Directors and Senior Management assess the underlying assumptions and limitations regarding the model in use, the fundamental assumptions used to measure risks, and the adequacy and appropriateness of data sources and implementation procedures.

The Audit Committee surveils whether the internal policies and implementation procedures approved by the Board of Directors with regard to risk management are observed, and makes recommendations to the Board of Directors with respect to the measures required to be taken where necessary.

The Board of Directors determines the general and risk type-based risk appetites as well as risk limits and signal values; approves the policies and implementing procedures with respect to risk management activities, and ensures that they are effectively implemented and maintained.

#### *Authority and independence of risk management and audit functions*

S.2.6.4: What are the duty, responsibility, authority, reporting channel, and resources of risk management and audit functions?

The Internal Systems Department comprises Internal Audit Unit, Internal Control Unit, Legislation and Compliance Unit, and Risk Management Unit, structured independently from each other in administrative terms and affiliated with the Board of Directors through the Audit Committee pursuant to the provisions of the Regulation on Banks' Internal Systems and Internal Capital Adequacy Assessment Process.

Activities of Takasbank within the scope of internal audit, internal control, legislation and compliance, and risk management are conducted by the Board of Directors, Senior Management, and the personnel of the Bank at every level, as well as Internal Audit Unit, Internal Control Unit, Legislation and Compliance Unit, and Risk Management Unit, pursuant to particularly the Banking Law, Capital Market Law, Law on Payment and Security Settlement Systems, Payment Services and Electronic Money Institutions, as well as other applicable external legislation, and internal strategies, policies, principles, and targets of the Bank.

Pursuant to Takasbank Risk Management Directive approved by the Board of Directors, the duties and responsibilities of the Risk Management Unit have been determined, at minimum, as follows:

- Designing and implementing the risk management system.
- Contributing to the processes of design, selection, implementation and pre-approval of the risk measurement models used within the scope of the operations of the Risk Management Unit, reviewing the models regularly and making the necessary changes.
- Generating regular reports using the risk measurement models used by the Risk Management Unit and analysing them.
- Monitoring the development of the Bank's risk appetites and risk limits and signal values determined by the Risk Management Unit and approved by the Board of Directors.

- Ensuring that the results of the risk measurement and risk monitoring activities carried out by the Risk Management Unit are regularly and timely reported to the Senior Management.
- Coordinating the implementation of the internal capital adequacy assessment process (ICAAP) within the Bank and the preparation of the related ICAAP Report.

The reports prepared by the Risk Management Unit are periodically reported to the Board of Directors, and – via the Senior Management – to the units responsible for the occurrence and monitoring of risks.

In accordance with Takasbank Internal Audit Regulation approved by the Board of Directors, Internal Audit Unit conducts inspection and audit of the Bank's business and IT units, as well as support and external service companies, performance of ICAAP review studies, performance of audits pursuant to the plan established on the basis of Information and Communication Security Guideline issued by the Digital Transformation Office of the Presidency, performance of ISO 27001, 22301, and 20000-1 internal audits, detection of deficiencies, errors, and abuses, prevention of their reoccurrence, evaluation of the accuracy and reliability of information and reports submitted to regulatory and supervisory authorities, Senior Management, and Top Management, assessment and improvement of effectiveness and adequacy of risk management, internal control, legislation, and compliance and governance processes of the Bank on a risk basis pursuant to the Internal Audit Plan, established on the basis of the annual Risk Assessment Report and including the information systems (IS) audit plan, as well as the work schedules, checklists, and IS audit guidelines prepared within the scope of such plan, as an independent and objective assurance and consultancy function.

Reports issued as a result of every department/team audit, as well as activity reports containing finding and recommendation follow-up results, issued on a quarterly basis, are submitted by the Internal Audit Unit to the Board of Directors. In addition, reports issued within the scope of information systems processes by Central Counterparty Department and clearing teams are submitted to CMB as well.

Internal Audit Unit also conducts on-site audit activities in central counterparty members to assess whether the members, associated with markets or capital market instruments for which the Bank is a central counterparty pursuant to the provisions of İstanbul Takas ve Saklama Bankası Anonim Şirketi Central Counterparty Regulation, the Directive on Information, Risk Management, Internal Audit and Internal Control Systems of Takasbank Central Counterparty Members, and the applicable legislation, established effective, adequate, and compatible internal audit, internal control, and risk management mechanisms, and issued reports are submitted to the Board of Directors and the CMB.

During studies conducted within the scope of the plan established jointly by the Internal Audit Unit and the Internal Control Unit, business and IS controls of the Bank are examined and an evaluation is made to reveal all the important control deficiencies about these controls regardless of the studies performed by the independent audit firms, as a result of which BRSA and CMB management declarations and reports subject to the declarations are issued and submitted to the Board of Directors.

In addition, investigation reports are submitted to the Audit Committee and to the General Manager through the Audit Committee, and the Audit Committee also informs the Board of Directors about

prepared investigation reports. Review reports and research reports are submitted Committee and to the General Manager through the Audit Committee.

In accordance with Takasbank Internal Control Regulation approved by the Board of Directors, within the organizational structure of Takasbank, in addition to the control function performed by relevant levels of management, activities of units are also periodically controlled by the Internal Control Unit through the Internal Control Plan as well as the checkpoints identified pursuant to internal control lists of business and information technologies units. Internal Control Unit conducts operations such as periodic review of internal control review plan and internal control lists within the scope of self-assessment studies and determination of control scores for risks included in the operational risk database, monitoring actions and key risk indicators determined for net risk level, as well as risks equal to operational risk appetite or higher than the risk appetite and validation of TFRS-9 expected credit loss model, issuance of ICAAP review report, ensuring coordination of independent auditors and business units in banking process audits, supporting independent audit studies performed within the scope of information systems processes, performance of ISO 27001, 22301, and 20000-1 internal audits, participation in project and work groups, as well as boards and committees related to changes and innovations planned to be made in the Bank's services and processes or critical processes within its area of assignment upon request and making recommendations aimed at minimizing risk in such meetings, review and submission to the Board of stress testing and backtesting results prepared by Central Counterparty Department. Internal Control Unit Activity Reports are reported to the Senior Management on a monthly basis, and to the Senior Management and to the Board of Directors through the Audit Committee on a quarterly basis.

Legislation and Compliance unit conducts follow-up and announcement of internal and external legislation changes in accordance with Takasbank Legislation and Compliance Regulation approved by the Board of Directors, establishment/update of internal and external legislation and other processes within the scope of the legislation governing the Bank, performance of legislative compliance assessments for new products and transactions and planned activities, coordination of the review of work flow and job description forms and the issuance of the report indicating the level of compliance with targets identified in respect of operation, reliability, resilience, and continuity of information systems within the scope of service level, performance of FATCA and CRS studies with FCIB and AML, provision of LPPD and FCIB trainings, coordination of CBRT surveys and CPMI-IOSCO compliance documents within the scope of payment and securities settlement systems, awareness raising activities within the Bank pursuant to Takasbank Information Disclosure Directive, Takasbank Ethical Principles and Social Media Policy Directive, and Takasbank Conflict of Interest Policy Directive, establishment/update of business continuity and IT statutory requirement document, fulfillment of the role of Information Disclosure Committee secretariat, support for sustainability operations, review of contracts within the scope of the Bank's procurements, issuance of periodic report on information disclosed by the Bank to third parties and submission of the report to the Board of Directors and then delivery to BRSA, completion and control of KYC, CCP and, business and information system continuity surveys of foreign organizations, and discussions as necessary. Legislation and Compliance Unit Activity Reports are submitted on a quarterly basis to the Senior Management, and to the Board of Directors by means of the Audit Committee,

S.2.6.5: How does the Board of Directors warrant that there is adequate management to ensure adoption and implementation of risk management models? How are these models and relevant methodologies approved?

Internal validation of risk quantification methodology, based on the model regarding economic and/or legal capital adequacy used by the Bank within the scope of Internal Capital Adequacy Assessment Process (ICAAP), is performed by the Internal Control Unit on a yearly basis and the Validation Report, issued in this scope, is submitted to BRSA after being presented to the Board of Directors as an appendix to the ICAAP Report. In addition, the “Review Report”, prepared by reviewing the accuracy of the data used by the Internal Audit Unit in the ICAAP Report, the adequacy of the systems and processes and whether such data, systems and processes provided proper information and analysis, is also submitted to BRSA after being presented to the Board of Directors as an appendix to the ICAAP Report.

Models and liquidity risk management framework, used in initial collateral and guarantee fund calculation by the Central Counterparty Department, should be routinely reviewed. In this context, compliance and validity of used risk management methods and models and the framework concerning liquidity risk management are reviewed at least once a year by Takasbank Internal Audit Unit. Internal audit findings regarding validation of models used in risk management are submitted to relevant senior managers and the Board of Directors.

The adequacy of the models and confidence levels used in the calculation of initial margins and collateral valuation haircuts in the markets to which CCP service is provided is analysed through backtesting performed by the Central Counterparty Department. The backtesting results of the models used in initial margin calculations, and the recommended measures, if any, are submitted to the Board of Directors through the Internal Systems Department at least four times a year. The backtesting results are also submitted to the CCP Risk Committee by June and December periods at minimum.

**Core Principle 7: The Board of Directors should guarantee that system design, rules, general strategy, and major decisions directly and indirectly reflect the legitimate interests of participants and other relevant stakeholders. Major decisions should be disclosed clearly to stakeholders and, in the event of broad market impact, to the public.**

*Determination and consideration of stakeholder interests*

S.2.7.1: How does the FMI determine and consider the legitimate interests of participants and other relevant stakeholders in the decision-making process regarding system design, rules, general strategy, and major decisions?

İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, where rules, procedures, and principles for operation and implementation of the system, is approved by our Bank’s Board of Directors and then submitted to the CBRT for approval. In this scope, stakeholder interests are taken into consideration also by the supervisory authority. In addition, fees and commissions charged by Takasbank in exchange for services are disclosed to the participants and the public, announced with general letters, and published on Takasbank corporate website to ensure transparency in offered services.

The Bank has prepared Takasbank Conflicts of Interest Policy Directive approved by the Board of Directors, which regulates the relationships of all Bank employees including the Board Members with clients, among themselves, and with the shareholders. In addition, the Bank has also issued Takasbank Ethical Principles and Social Media Policy Directive approved by the Board of Directors and Takasbank Gifting Procedure within the knowledge of the Board of Directors in order to address the issue in detail from all aspects. These procedures and directives are announced to all Bank employees; and in case of amendments, the most recent version is first sent to the BoD for approval or information and then announced to all Bank employees, thus raising awareness within the Bank. Relevant directives are published also in the internal portal of our Bank.

Besides, the customer satisfaction surveys held on an annual basis strengthens the continuous improvement-oriented service approach in order to ensure that the impact that the service provided creates on the counterparty is measured and the necessary enhancements are duly made.

S.2.7.2: How does the Board of Directors consider the opinions of indirect and direct participants and other relevant stakeholders? For example, are the participants included in risk management committee, user committees such as default management group, or decision-making processes through public debate? How are the conflicts of interest between the FMI and stakeholders identified and addressed?

İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, where rules, procedures, and principles for operation and implementation of the system, is approved by our Bank's Board of Directors and then submitted to the CBRT for approval. In this scope, stakeholder interests are taken into consideration also by the supervisory authority. In addition, fees and commissions charged by Takasbank in exchange for services are disclosed to the participants and the public, announced with general letters, and published on Takasbank corporate website to ensure transparency in offered services.

Meetings are held by Takasbank or, upon request, with participants to have system rules effectively fulfill the needs of participants. Besides, the customer satisfaction surveys held on an annual basis strengthens the continuous improvement-oriented service approach in order to ensure that the impact that the service provided creates on the counterparty is measured and the necessary enhancements are duly made.

The Bank has prepared Takasbank Conflicts of Interest Policy Directive approved by the Board of Directors, which regulates the relationships of all Bank employees including the Board Members with clients, among themselves, and with the shareholders. In addition, the Bank has also issued Takasbank Ethical Principles and Social Media Policy Directive approved by the Board of Directors and Takasbank Gifting Procedure within the knowledge of the Board of Directors in order to address the issue in detail from all aspects. These procedures and directives are announced to all Bank employees; and in case of amendments, the most recent version is first sent to the Board of Directors for approval or information and then announced to all Bank employees, thus raising awareness within the Bank. Relevant directives are published also in the internal portal of our Bank.

Moreover, Takasbank Corporate Governance Principles Directive has been issued, encompassing the content of the corporate governance policy that will provide guidance for the management of

the Bank in a transparent, accountable, responsible and equitable manner; the roles and responsibilities of the Corporate Governance Committee to be established pursuant to the policy; the arrangement of the Bank's relationships with its shareholders, stakeholders, regulatory and supervisory authorities, managers and employees in accordance with the principles of integrity, reliability, impartiality, confidentiality and equality; and the Bank's responsibilities regarding the environment and social life.

According to the Corporate Governance Policy established under such Directive;

- a) Necessary measures are taken to ensure that the Bank's Senior Management and all levels of management fulfil their duties in a manner that is effective, fair, transparent, accountable and free of conflicts of interest. All levels of management are allowed to take the decisions required by their responsibilities that they have undertaken in the Bank's management. In the election or appointment of the members of the Board of Directors that will take office pursuant to the relevant legislation and the Bank's Articles of Association and bear the qualifications to make objective and independent assessments about the Bank's operations, it is required as a condition precedent that they should have the qualifications and meet the requirements stipulated in the relevant legislation; in addition, such members are evaluated in detail for any issues that may create any conflicts of interest within the scope of corporate governance practices.
- b) The Bank does not discriminate between its shareholders and its members that are not the shareholders of the Bank when it comes to determining the fee and commission tariffs in Banking operations. Relationships with shareholders and clients are conducted in a fair, transparent and accountable manner.

The Bank has established a Corporate Governance Committee comprising at least 2 members to be selected by the Board of Directors from and among the Board Members, in order to monitor the Bank's compliance with corporate governance principles, to make improvements and to submit recommendations to the Board of Directors in relation thereof. It is essential that the Committee Chairman is an independent Board member; and the other member(s) is selected from among the Board Members that have no executive duties. The committee identifies the conflicts of interest resulting from the failure in full compliance with the corporate governance principles, and ensures that necessary policies are established to manage such conflicts. It follows the processes of development and updating of the standards, policies, instructions and implementation procedures with respect to the Bank's operations and transactions. It reviews important complaints and claims constituting the subject matter of corporate governance practices and presents to the Board of Directors its opinions and recommendations related thereof.

These processes are stipulated in the Takasbank Corporate Governance Principles Directive; and the relevant legislation has been announced to all Bank employees and it is accessible at any time. Furthermore, the Corporate Governance Principles Compliance Report contained in the integrated activity report is also disclosed to the public.

S.2.7.3: To what extent does the FMI disclose decisions made by the Board of Directors to stakeholders and, where appropriate, to the public?



Fees and commissions charged by Takasbank in exchange for services are disclosed to the participants and the public, announced with general letters, and published on Takasbank website to ensure transparency in offered services.

With regard to the data to be disclosed to public, due attention is paid to the protection of trade secrets as required by the BRSA, CMB and CBRT regulations.

***Takasbank Assessment Result for CPMI-IOSCO Principle 2***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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**Principle 3: Framework for the Comprehensive Management of Risks**

FMI's should have a sound risk management framework for comprehensive management of legal risk, credit risk, liquidity risk, operational risk, and other risks.

**Core Principle 1: The FMI should have risk management policies, procedures, and systems to ensure definition, measurement, monitoring, and management of various risks that impact and arise from the FMI. Risk management frameworks should be subject to periodic review.**

*Risks that arise from and impact the FMI*

S.3.1.1: What kinds of risks, which arise from and impact the FMI, are present?

Pillar 1 risks and Pillar 2 risks, defined within the scope of the banking legislation, comprise the risks that impact the Bank. While Pillar 1 risks that the Bank is exposed to are the credit risk, market risk, and operational risk; Pillar 2 risks are the liquidity risk, interest rate risk in banking book, and central counterparty general business risk.

Due to the fact that any disruption likely to occur in the services offered by the Bank could affect all capital markets due to the nature of the Bank's structure and activities, particular importance is given to the business continuity risks. Business continuity risks are categorized under operational risks.

The Board of Directors is the body responsible at the highest level for the establishment of an efficient risk management function within the structure of Takasbank and the supervision and oversight of the sufficiency of this function. The regulations made by the Board of Directors and listed in an itemized manner in (question no. 2.6) above provide a comprehensive, consistent and robust risk management framework for identification, measurement, monitoring and management of the risks. Takasbank's risk management framework is reviewed at least once a year; and its currency is maintained. The effectiveness of risk management policies, procedures, and systems are supervised by the Board of Directors by means of internal control and internal audit functions.

*Risk management policies, procedures, and systems*

S.3.1.2: What are the policies, procedures, and controls that help identification, measurement, monitoring, and management of risks arising from the FMI or impacting the FMI?

Principles and procedures on identification, measurement, monitoring, and management of risks were regulated pursuant to Takasbank Risk Management Regulation approved by the Board of Directors. Principles and procedures on measurement, monitoring, management, and control of the Banks operational risks were regulated pursuant to Takasbank Operational Risk Management Procedure issued under the mentioned Regulation.

Principles and procedures for operation of internal capital adequacy assessment process, capital adequacy policy, policy on liquidity and funding, and reports to be issued within this scope are specified in Takasbank Directive on Internal Capital Adequacy Assessment Process; while principles, assumptions, and practices concerning stress testing implemented by the Bank are specified in Takasbank Procedure on Stress Testing Program Policy and Practice Principles.

The framework policy for the principles and procedures for determination and implementation of strategies concerning the Business Continuity Management System is Takasbank Business Continuity Directive. In addition, our Bank also has Business Continuity Procedure, Business Continuity Plan, Borsa İstanbul Group Emergency Action Plan, Information Systems Continuity Plan, Epidemic Action Plan, Communication Plan, Takasbank Recovery Plan and Takasbank Orderly Wind-Down Plan.

S.3.1.3: What kinds of risk management systems are used to assist identification, measurement, monitoring, and management of various risks by the FMI?

The risks that are defined by each unit of the Bank on a service and subservice basis are monitored through the Operational Risk Database as per Takasbank Operational Risk Management Procedure. In the Operational Risk Database that is updated at least once a year, subservice risks and controls established in relation to such risks can be defined in an open platform that is accessible to the Bank personnel at all times by service owners and/or risk and control supervisors, after holding mutual meetings with all units under the coordination of the Risk Management Unit and Internal Control Unit, based on the Bank's Service Catalogue. The records related to the said database also provide inputs for the annual internal audit and internal control activities as well as the Governance Statement document. The actions recommended for the risks with net risk level equal to or above the operational risk appetite and key risk indicators are monitored by the Internal Control Unit, and these risks are reported by the Risk Management Unit to the Senior Management and it is ensured that necessary actions are taken.

S.3.1.4: How do such risk management systems provide the opportunity to aggregate risks incurred by the FMI and, as appropriate, other related parties such as FMI's participants and their clients?

Service and sub-service based risks of the Bank are aggregated in the Operational Risk Database and incurred losses are aggregated in the Operational Risk Loss Database in accordance with Takasbank Operational Risk Management Procedure. Upon inspection of the mentioned databases, it is seen that no loss was incurred within the scope of the check clearing system and there was no risk record equal to or higher than the operational risk appetite. In addition, participants attend the emergency/disaster drills that are held on a yearly basis.

*Review of risk management policies, procedures, and systems*

S.3.1.5: How does the process for development, approval, and maintenance of risk management policies, procedures, and systems progress?

Risk management policies and procedures are prepared by the Risk Management Unit and presented to the Audit Committee, which then approves them if it considers appropriate and submits them to the Board of Directors for approval. The policies and procedures approved by the Board of Directors are transferred to a platform (system) accessible to all Bank employees and also notified to the personnel via e-mails.

The Board of Directors is responsible for establishing the system necessary for assessment of the risks that the Bank is exposed to, developing a system that will be associate the Bank's risks with its level of capital, and determining the necessary methods for monitoring compliance with internal policies.

The Audit Committee is responsible to assess whether the necessary methods, tools, and implementing procedures are in place to identify, measure, monitor, and control risks that by the Bank is exposed to.

In risk management, the approach of three lines of defence is run, comprising business line management, central risk management function, and independent review process.

- In business line management, the risks arising from the products and services offered by each unit of the Bank, and the processes, human resources and systems used are identified; the service and subservice-based risks and controls are defined and the Senior Management is informed, ensuring that appropriate actions are taken.
- The central risk management function is ensured by establishing risk and control systems within the Bank, segregating the roles and responsibilities, and having the processes and functions reviewed by Risk Management Unit and the Internal Control Unit, other than the operational units that execute them.
- The independent review process is comprised of the assessment of the risk management, legislation and compliance, and internal control framework from all aspects, and this function is executed by the Internal Audit Unit.

S.3.1.6: How does the FMI evaluate the effectiveness of risk management policies, procedures, and systems?

It is essential that the policies, procedures and systems are up-to-date and comply with legislation; and the activities for keeping the Bank's internal legislation, job descriptions and workflows up-to-date are conducted by all units of the Bank under the coordination of the Legislation and Compliance Unit.

The Board of Directors continuously and effectively evaluates the degree of achievement of the Bank's targets, its activities, and its performance; monitors and controls the compliance of its activities with the relevant legislation, the articles of association, internal regulations and established policies.

The Audit Committee is assigned with observing effectiveness and adequacy of Internal Control, Legislation and Compliance, Risk Management, and Internal Audit Units systems of the Bank on behalf of the Board of Directors.

The efficiency of the risk management policy, procedures and systems is assessed by the Internal Control Unit and Internal Audit Unit through internal control and audit activities. In addition, these issues are also audited by independent auditors, external auditors focusing on business continuity and information security, as well as regulatory and supervisory authorities.

S.3.1.7: How often are the risk management policies, procedures, and systems reviewed and updated by the FMI? How do the mentioned review studies consider fluctuations in risk concentration, changing environmental conditions, and market practices?

Risk management policies, procedures, and systems are reviewed as frequently as necessary (for example, due to changing market conditions or financial disruptions); however, at least on a yearly basis.

Takasbank's risk management framework is reviewed at least once a year; and its currency is maintained. The effectiveness of risk management policies, procedures, and systems are supervised by the Board of Directors by means of internal control and internal audit functions.

**Core Principle 2: The FMI should encourage its participants and, in relevant cases, clients of participants to manage and limit risks imposed on the FMI.**

S.3.2.1: Which information does the FMI provide to its participants and, in relevant cases, their clients to ensure that they manage and limit risks imposed on the FMI.

Takasbank does not offer central counterparty services under the Check Clearing System. However, a guarantee mechanism was established for use in case the participants fail to fulfill their obligations under the Check Clearing System, and the participants can monitor guarantee mechanism contributions that they are obliged to maintain, valued states of collaterals that they deposited, and deficient collateral obligations in case of margin call through Takasbank screens.

Principles for such practice are explained in detail in Section 4 titled "Principles for Collaterals and Guarantee Mechanism Contribution" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement and Risk Management System Rules.

S.3.2.2: Which incentives does the FMI provide to its participants and, in relevant cases, their clients to ensure that they monitor and manage risks imposed on the FMI.

Participants of the Check Clearing System are banks and it is not responsible for obligations of banks toward their clients.

İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, containing principles on the mentioned practice, are announced to the participants via general letters and its current version is accessible on the Bank's corporate website.

S.3.2.3: How does the FMI design its policies and systems to enable its participants and, in relevant cases, their clients to use such policies and systems effectively in management and limitation of their risks?

Takasbank does not offer central counterparty services under the Check Clearing System. However, a guarantee mechanism was established for use in case the participants fail to fulfill their obligations and the participants can monitor guarantee mechanism contributions that they are obliged to maintain, valued states of collaterals that they deposited, and deficient collateral obligations in case of margin call through Takasbank screens.

Principles for such practice are explained in detail in Section 4 titled “Principles for Collaterals and Guarantee Mechanism Contribution” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement and Risk Management System Rules.

System Rules are announced to the participants via general letters and its current version is accessible on the Bank’s corporate website.

**Core Principle 3: An FMI should regularly review the material risks arising from and imposed on other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependency and develop appropriate risk management tools for such risks.**

#### *Material risks*

S.3.3.1: How does the FMI define the material risks arising from and imposed on other entities as a result of interdependency? What are the material risks defined by the FMI in this context?

CBRT EFT system is used in terms of settlement finalization within the scope of the check clearing service. Takasbank was defined as a critical participant by the CBRT. The settlement must be completed in case the EFT system is not operational for any reason. In this context, we attend the CBRT Payment Systems Business Continuity tests, scheduled annually by the CBRT, as a critical participant both due to the fact that we are a critical participant and for the purpose of ensuring continuity of the service that we offer. During the relevant tests, it is tested under planned scenarios how to make payments and transfers if the EFT system is not operational.

S.3.3.2: How are such risks measured and monitored? How often does the FMI review such risks?

As redundant lines were installed between Borsa İstanbul Data Center and Emergency Data Center in Ankara, services can be provided through systems present in the secondary data center if support services provided to the Bank are disrupted. In addition, outsourced service interruptions are monitored on a semi-annual basis within the scope of business continuity, and the Summary IS Risk Assessment Report containing the results is submitted to the Board of Directors at a minimum annual period. Moreover, drawing upon the Summary IS Risk Assessment Report, the risk assessment related to information technologies is sent to the CBRT, together with Takasbank continuity-reliability report and penetration testing report.

Risks are monitored via the Operational Risk Database and the Operational Risk Loss Database; and there is no loss related with the CBRT in the Bank's Operational Risk Loss Database.

In respect of support services, pursuant to the Regulation on the Banks' Procurement of Support Services published by the BRSA, an annual risk management program is created and the Risk Analysis Report prepared by the Risk Management Unit regarding support service provider companies and the technical adequacy report prepared by the relevant unit receiving the support service are reported to the Board of Directors at least once a year as an appendix attached to the Audit Committee assessment report. Besides, the criticality levels of the suppliers are determined by the Bank and important vendors/suppliers are identified.

The mandatories of the counterparty are explicitly defined in the contracts concluded with external service providers, and different service level agreement provisions (such as the form and duration of intervention, maintenance conditions and penal provisions) are included in the contract depending on the criticality of the service. IT External SLA Assessment Periodic Report, prepared so as to monitor compliance with the provisions of the service level agreement, is issued by the Procurement Team to ensure that the necessary actions are taken, and the process is thus conducted. Assessment of supplier performances in line with the said processes related to materiality analysis, preparation of technical competence reports and information records (including risk assessment and exit strategy, etc.) are elaboratively stated in Takasbank Purchasing Directive, Takasbank Purchasing Procedure, Takasbank Supplier Relations Management Procedure, Takasbank Support Service and Foreign Service Procurement Procedure and Service Level Agreements Procedure for Takasbank Foreign Service Procurements.

It is assessed by the department/team that requests the service, in consideration of Confidentiality, Integrity, Availability, Compliance, Finance, Reputation, Access, and Authorization effect, whether the service subject to procurement is included in the scope of external service procurement. The assessment study is submitted to Legislation and Compliance Unit and Information Systems Control Team. In case of any dissenting opinion, such opinion is submitted to the relevant Team. The decision, made by the Department/Team that requests the service, is implemented as the final decision. Technical Adequacy Report is issued for suppliers selected as external service providers. Periodic controls are also carried out by the Internal Control Unit regarding the supplier management process.

#### *Risk management tools*

S.3.3.3: Which risk management tools does the FMI use in respect of risks arising from interdependency with other entities?

The operational risks that the Bank is/might be exposed to are covered to a substantial extent with the insurance policies taken out. In this context; electronic equipment, machinery breakdown, fire and theft, employer's liability, personal accident, third party liability insurances were purchased. In addition, there is a Joint Professional Liability Policy and Manager Liability Insurance Policy that cover the Bank and Borsa İstanbul and the CCP together.

Again, "Comprehensive Insurance Policy for Financial Institutions", procured jointly by Takasbank, BİAŞ and CRA, covers the risks of theft, damage to offices and contents, threats of attacks on persons, assets, and cyber attacks, forgery, forged document risk, computer and telephone crimes, and data protection risks that may occur due to loss of value and incorrect transfer.

On the other hand, the Bank may also ask the relevant companies to take out liability insurance in order to compensate potential damages that might result from the risks that the Bank may be exposed to due to the services procured from supplier companies within the scope of BRSA Support Service.

S.3.3.4: How does the FMI assess the effectiveness of such risk management tools? How does the FMI review such risk management tools? How often are review studies conducted?

The insurance policies purchased are renewed every year; and the general process related to insurance policies is reviewed annually with respect to all services, including the Bank's operations that must be included in insurance coverage as a result of the Bank's new products or services.

**Core Principle 4: The FMI should define potential scenarios that might prevent continuous performance of critical activities and services, and assess the effectiveness of various recovery or orderly wind-down options. The FMI should prepare suitable plans for recovery or orderly wind-down based on the outcomes of such assessment.**

*Scenarios preventing the FMI from performance of critical activities and services*

S.3.4.1: How does the FMI define potential scenarios preventing the performance of its critical activities and services? Which scenarios have been defined in this scope?

In Bank's business continuity management system (BCMS), disruption scenarios are determined after all parties assess potential cases in which the resources (assets) that are critical in the provision of services are identified and such resources become unavailable, useless, or inaccessible for any reason whatsoever. Resources at Bank have been grouped in 6 categories:

- Financial Assets (Money),
- Human Resources,
- Facilities (workplaces and equipment/hardware),
- Technology (applications, infrastructures, and all other related IT assets),
- Suppliers (Türk Telekom, etc.), and
- External Organizations that we depend on for Bank's Services (the institutions that we are technologically dependent on in the provision of Bank services, including Borsa İstanbul, CRA, CBRT, SWIFT, EMOC, Credit Bureau, IIMC, ICC, TME, correspondent banks, etc.)

The cases in which each resource might become temporarily or permanently unavailable are analysed both by service managers as part of the Operational Risk Database activities, and from a business continuity perspective; and risks are identified and reviewed on an annual basis. Occupational health and safety risks are incorporated into the risks of the related unit, i.e. the



Human Resources and Support Services Department and thus covered under insurance. It also enriches business continuity risks by assessing all stakeholders outside the Bank (neighbours, partners, regulators, legal authorities, employees and their families, supplier groups, etc.) through the relevant party analysis it carries out.

There is a total of 26 different business continuity disruption scenarios defined at Takasbank as follows:

- Unserviceability of the Bank building (the building's exposure to earthquake or an earthquake risk, acts of terrorism in front of the building, lack of access to the bank due to natural disasters, actual or a threat of fire or flooding in the building or other situations that may endanger employee safety, power outages due to any breakdown in power supplies)
- Breakdown in the systems and backups at the Primary Data Center (PDC) (exposure to earthquake, fire, flood, power outage)
- Configuration / hardware / software problems in the Primary Data Center (PDC) firewall, spine switch, load balancer, virtualization systems and their backups stored in the PDC
- Breakdown of the primary and also the backup virtualization system at the Primary Data Center (PDC)
- Hardware / configuration / software problems in the banking database servers
- Loss of data integrity in the banking database (breach of information security, human / process / application error)
- Hardware / configuration / software -related problems in the application and/or web and/or queue servers and their backups
- Lack of access by participant and other stakeholders and lack of internet connectivity within the bank due to a hardware / configuration / software – related problem in the Internet and local routers and their backups
- Problems occurring in Borsa İstanbul BDC extranet lines and their PDC backups
- Hardware / configuration / software problems in the CRA messaging queue servers
- Hardware / configuration / software problems in BISTECH application and/or queue servers
- Hardware / configuration / software problems in EFT GW application and/or queue servers
- Hardware / configuration / software problems in SWIFT Backoffice and SWIFT application and/or queue servers
- Problems occurring in BISTECH primary and backup hardware
- Corruption / deletion of one or more of the objects (exe, stored procedure, tables, etc.) that are necessary for the proper functioning of applications
- Problems in the webservice messaging or lines of communication between us and EMOC
- Service provider-related problems in SWIFT communications
- Hardware problems occurring simultaneously in the primary and backup domain servers
- The issue of corruption of the operating system (Linux, Windows) configuration data and/or software

- The issue of lack of internet access inside or outside the bank attributable to internet service provider/s
- The issues making critical services non-functional or creating a performance problem as a result of denial of service attacks (DOS, DDOS, hacking, etc.) to the externally accessible services of the Bank
- Failure to provide services due to inadequacy, loss, or incapacitation (collective incapacitation as a result of Great Istanbul Earthquake or pandemic, collective strike, etc.) of qualified human resources needed for the service to be provided.
- Issues experienced in internet/extranet network access across Turkey or acts of terrorism/acts of god that will render primary and secondary data centers inoperative simultaneously
- Failure of applications and/or infrastructures providing ERP System to operate through primary systems
- Failure of applications and/or infrastructures providing EDMS System to operate through primary systems
- Failure to transmit data, which should be transmitted from MIQ database that is a part of BISTECH systems, to Takasbank Systems on time due to synchronization error or for any other reason

S.3.4.2: How do the mentioned scenarios consider both the risks arising directly from the FMI and the risks that are external to the FMI?

The disruption scenarios given in article S.3.4.1 have been analysed and designated so as to include all risks defined in the Operational Risk Database; and they cover both risks that the FMI is exposed to, those arising directly from the FMI and those external to the FMI.

*Recovery or orderly wind-down plans*

S.3.4.3: What kind of plans does the FMI have for orderly wind-down or recovery of operations?

Pursuant to subparagraph (1) of the first paragraph of article 11 entitled “Operating Principles of the System Operator” as specified in the Regulation on Operations of Payment and Securities Settlement Systems, Takasbank Recovery Plan is prepared and approved by the Board of Directors. In addition, Takasbank Orderly Wind-Down Plan has been prepared in relation to the orderly wind-down of activities and approved by the Board of Directors.

S.3.4.4: How does recovery or orderly wind-down strategies of the FMI ensure that the FMI continues to perform its critical activities and services?

Given the robust capital structure of Bank, the recovery plan has been designed to prevent any wind-down and maintain the continuity of services by taking the actions listed in the plan. Besides, our Bank collects business risk and recovery cost provision as well.

In addition, Takasbank Orderly Wind-Down Plan has been prepared in relation to the orderly wind-down of activities and approved by the Board of Directors. The mentioned plan includes the actions

designated in regulations, to be taken in termination of CCP operations, conducted by Takasbank, by CMB; actions to be taken in termination of CCP operations, conducted by Takasbank, by CMB and continuation of its operations as a CCP; and actions to be taken pursuant to the Law on Payment and Securities Settlement Systems in the event that the licenses given by the CBRT for the payment and securities settlement systems-related activities conducted by Takasbank are cancelled/transferred to other institutions.

S.3.4.5: How are the recovery or orderly wind-down plans of the FMI reviewed and updated? How often are the plans reviewed and updated?

İstanbul Takas ve Saklama Bankası A.Ş. Recovery Plan is reviewed and updated annually and approved by the Board of Directors. Similarly, İstanbul Takas ve Saklama Bankası A.Ş. Orderly Wind-Down Plan is also reviewed annually.

***Takasbank Assessment Result for CPMI-IOSCO Principle 3***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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#### **Principle 4: Credit Risk**

FMI should effectively measure, monitor, and manage its credit risks arising from its participants and the payment, clearing, and settlement transactions that it conducts. FMI should have adequate financial resources to fully cover the risks arising from each participant with a high degree of confidence. In addition, a CCP with more complex activities with a higher risk profile or with systemic importance in multiple jurisdictions, should maintain additional financial resources sufficient to cover needs arising in comprehensive stress scenarios, including but not limited to the default of two participants and their affiliates that would generate the highest total credit risk in extreme but plausible market conditions. Other CCPs should maintain sufficient financial resources to cover needs that will arise in consideration of the potential default of a participant and its affiliates that would at least generate the largest credit risk in the case of default under extraordinary but plausible market conditions.

**Core Principle 1: The FMI should establish a strong framework to manage credit exposures arising as a result of payment, clearing, and settlement transactions that it shall be exposed to due to system participants and that are conducted in the system. Credit exposure may arise from current exposures, future exposures, or both.**

S.4.1.1: What is the framework owned by the FMI to manage present or potential future credit exposures arising from payment, clearing, or settlement processes, to which the FMI shall be exposed due to its participants?

Credit risk management framework is included in Takasbank Risk Management Regulation. In this context, the maintenance of the Bank's activities in a manner not exceeding the legal and internal capital limits and remaining below the risk appetites determined by the Board of Directors in general and on the basis of risk types constitutes the Bank's risk policies on the basis of risk types.

The capital amount that the Bank will need within the next three-year period for the risks that the Bank will be exposed to is calculated for the base, negative and extremely negative scenarios in the ICAAP Report prepared pursuant to the Regulation on Banks' Internal Systems and Internal Capital Adequacy Assessment Process. If, pursuant to the legislation that the Bank is subject to, the Bank's capital adequacy level falls below the targeted rate calculated within the framework of ICAAP, an action plan that will allow the Bank to swiftly raise the capital adequacy above the target rate is prepared and presented to the BRSA. There were no occasions in which the Bank's current capital adequacy level remained below the target the rate.

S.4.1.2: How often is the mentioned framework reviewed in consideration of changing market conditions, market practices, and new products?

It is required that the risk management processes, policies and implementing procedures should be adapted to changing conditions. The Board of Directors regularly reviews the adequacy of such policies and implementing procedures, and makes the necessary changes.

The credit risk appetite is reviewed at least once a year. Credit risk limits and signal values are reviewed according to the changes in market conditions and the Bank's strategy.

Pursuant to Takasbank Internal Capital Adequacy Assessment Process Directive, ICAAP is reviewed annually. If there are any changes likely to cause material impacts on the Bank's strategies, business plan, operational framework or the assumptions and methods used by the Bank within the scope of ICAAP; necessary adjustments are immediately made in ICAAP, without waiting for its periodical review.

Takasbank Recovery Plan containing credit risk-related actions is reviewed at least once a year with the participation of all relevant units of the Bank under the coordination of the Risk Management Unit.

**Core Principle 2: The FMI should identify the source of credit risks, measure and monitor such risks regularly, and use necessary risk management tools to keep these risks under control.**

S.4.2.1: How does the FMI define the sources of credit risk and what are the risk sources defined in this context?

The failure of the system-participant banks to fulfil their settlement obligations towards Takasbank completely or timely is defined by Takasbank as credit risk. The credit risk may result either from the system participant's failure in fulfilling its obligations towards Takasbank completely or timely, or from the size of depreciation in the values of assets accepted and received as collaterals against such risks falling short of covering the potential loss in case of any default.

However, trade margins and guarantee fund contribution amounts deposited by system participants to Takasbank are placed at certain institutions for investment or safekeeping purposes. On the other hand, Takasbank features placements as part of its banking operations. Takasbank may face credit risk if relevant institutions fail in fulfilling their repayment obligations towards Takasbank with respect to such placements.

The credit risk may result either from the payment, clearing and settlement processes in the system, or the cash credit practices and treasury practices processes that are not directly related with clearing and settlement, but the system participants may be involved in.

S.4.2.2: How does the FMI measure credit risk and how does it monitor such risks? How often does the FMI recalculate these risks and how often is it able to recalculate? How is the information kept up-to-date?

In the Bank, the credit risk is measured on a monthly basis using the standardised approach in accordance with the provisions specified in the Regulation on Measurement and Assessment of the Capital Adequacy of Banks published by the BRSA and the relevant secondary arrangements; and then reported to the BRSA via the legal forms designed by the BRSA.

Furthermore, the Bank's Board of Directors has established five concentration limits and signal values in order to control the credit risk. Such credit risk concentration limit values are monitored

by the Risk Management Unit and notified to the Senior Management and the Bank's relevant units via e-mails on a daily basis.

The Risk Management Unit reports any breaches exceeding the signal values to the Audit Committee, Senior Management and the relevant unit managers responsible for risk via e-mail. In case of exceeding the allocated risk limits and risk appetite, the Risk Management Unit promptly notifies the Senior Management and the Audit Committee in writing in order to take the necessary measures.

Credit risk limits and signal values are reviewed according to changes in market conditions and Bank Strategy, while the review process is conducted to determine whether limits are meaningful and adequate in view of risks and the Bank's risk appetite. The primary responsibility to review credit risk limits and the responsibility to oversee that the risks assumed by the Bank are within the designated risk limits and are monitored by the Bank's Senior Management rest with the Board of Directors.

S.4.2.3: Which tools does the FMI use to control identified credit risk sources (For example, using RTGS or DvP mechanisms, restriction of intra-day credits and net debt amount, establishment of concentration limits, valuation of daily or intra-day positions according to the market) and how does the FMI measure the effectiveness of these tools?

Banking activities related to credit risk are carried out by business units with a risk-oriented perspective. In addition to the controls performed by business units, the activities of units are periodically audited by the Internal Audit Unit conducting reviews and audits on behalf of the Board of Directors; and are controlled by the Internal Control Unit with a risk-based approach at specific intervals.

**Core Principle 3: A payment or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral or other equivalent financial resources. In the case of a DNS payment system or DNS SSS in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of participants and their affiliates that would create the largest aggregate credit exposure in the system.**

*Covering risks arising from each participant*

S.4.3.1: How does the payment / securities settlement system cover existing risks and, if available, potential risks that might emerge in the future, arising from each participant? What do the financial resources, used by the FMI to cover such risks, comprise? How accessible are these financial resources?

Takasbank manages the credit risks that it is exposed to under its Check Clearing system in accordance with the following considerations.

- The participants must deposit guarantee mechanism contribution in consideration of their potential defaults arising from their risks for finalization of clearing transactions.

- Takasbank constantly monitors the adequacy of determined contribution amount and it may amend contribution levels as necessary considering market conditions.
- Guarantee mechanism contribution is calculated by multiplying the average balance, obtained by dividing the total amount of net debt amounts on days when each participant is in net debt to the System in the last 12 months to the number of business days in the last 12 months, with the probability of default coefficient.
- The coefficient, which represents the average probability of default of system participants, is determined by Takasbank in consideration of market conditions and reviewed on a quarterly basis.
- Additional guarantee mechanism contribution is collected from three participants with the highest average concentration in the system.
- Assets deposited as guarantee mechanism contribution are valued with current market prices on a daily basis and a margin call is issued for the accounts having a contribution deficit.

S.4.3.2: To what extent do these financial resources cover all existing and, if available, future risks of the payment/securities settlement system at a high level of certainty? How often does the payment/securities settlement system evaluate the adequacy of its financial resources?

Takasbank tests the adequacy of its financial resources in the check clearing system on a yearly basis. Pursuant to İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, resources to be utilized in the event of default of system participants are as follows:

- Guarantee mechanism contribution of the system participant in default
- Deposited guarantee mechanism contributions of other system participants.

Accordingly, a stress testing program, specific to the check clearing system, is implemented as follows.

- With stress tests, the sufficiency of current and potential financial resources is tested considering settlement obligations of system participants that occur under extraordinary market conditions.
- The stress testing program analyses the adequacy of the size of the guarantee mechanism, established for the check clearing system, in the event of default of system participants.
- In respect of stress testing methodology, the adequacy of guarantee mechanism is tested in consideration of the number of participants, whose daily net settlement obligation is lower than the size of guarantee mechanism on the market as of the relevant day.

**Core Principle 7: The FMI should establish clear rules and procedures that fully address the credit losses, which might arise due to the obligations of its participants to the FMI as a consequence of their individual or joint default. Such rules and procedures should be established so as to involve the distribution manner of credit losses that cannot be covered (by existing means) to defaulting participants and the repayment manner of funds borrowed from liquidity providers. Besides, such rules and procedures should also involve recovery of**

**financial resources, utilized in the event of stress, so that the FMI can continue to maintain its operations in a safe and strong manner.**

*Distribution of credit loss*

S.4.7.1: How do the rules and procedures of the FMI clearly involve all credit losses to be incurred due to the obligations of its participants to the FMI as a consequence of their individual or joint default? How do such rules and procedures explain the distribution manner and order of credit losses that cannot be covered (by existing means) and the repayment manner of funds borrowed from liquidity providers?

Details concerning the default management process are explained in section 5 titled “Default and Aggrievement Payment Transactions” in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules. In this context; action is taken according to the following order of priority in utilization of resources to be implemented in the event of default of system participants:

- Guarantee mechanism contribution of the system participant in default
- Deposited guarantee mechanism contributions of other system participants.

Default management resources are limited to the guarantee mechanism under the check clearing system.

*Re-provision of financial resources*

S.4.7.2: What are the rules and procedures of the FMI concerning substitution of financial resources used in the event of stress?

Pursuant to article 29 titled “Guarantee mechanism contribution margin call” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, Takasbank makes a guarantee mechanism contribution margin call at the end of every business day in case of a drop below the contribution amount determined by Takasbank due to changes in the valued guarantee mechanism contribution amount or for other reasons. Following electronic delivery of guarantee mechanism contribution margin call by Takasbank, it is deemed that the participant received the call without the need for a further warning or notice. Participants should fulfill their guarantee mechanism margin call obligations at the latest by 11:00 AM on the next business day. Default provisions shall be applicable to obligations that cannot be fulfilled in the mentioned period.

***Takasbank Assessment Result for CPMI-IOSCO Principle 4***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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### **Principle 5: Guarantee**

An FMI that requires collateral to manage its or its participants' credit exposure should accept collaterals with low credit, liquidity, and market risks. Such FMI should also establish and implement haircuts and concentration limits.

#### **Core Principle 1: The FMI should limit assets, accepted regularly as collateral, to assets with low credit, liquidity, and market risk in general.**

S.5.1.1: How does the FMI determine whether a certain asset shall be accepted as collateral, including collaterals acceptable for exceptional reasons? How does the FMI determine circumstances that qualify as exceptional reasons? How does the FMI readjust these determinations? How often does the FMI accept collateral for exceptional reasons and is there a limit imposed on accepting such collaterals?

In accordance with article 23 of the Regulation on Operations of Payment and Securities Settlement Systems, it was stipulated that the system operator should pay attention to ensuring that credit, liquidity, and market risks of assets, accepted from the participants, are low; update pricing and discount rates for non-cash assets in parallel with the developments in financial markets; and establish an effective system to manage and monitor such assets. Accordingly, assets to be accepted as guarantee mechanism contribution in accordance with article 26 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, were identified as follows:

- Cash (in Turkish Lira /Convertible Foreign Currency)
- Government Domestic Debt Securities
- Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company (T.C. Hazine Varlık Kiralama A.Ş.),

Any asset, other than those listed in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, can be accepted as collateral only upon approval of the Bank's Board of Directors and the CBRT.

There is no exceptional practice deviating from the application of general rules for accepted collaterals.

S.5.1.2: How does the FMI monitor a collateral for the brought collateral to fulfill the acceptance requirements?

All parameters related with collaterals are already defined in Takasbank system; and there is no manually operated process. Therefore, it is not systematically possible to deposit any ineligible assets as collaterals.

S.5.1.3: How does the FMI define and minimize potential wrong-way risk - for example, limitation of accepted collateral (including collateral concentration limits)?

Specific wrong-way risk is the risk that may result from the existence of a wrong-way correlation between the market value of the collateral received and the current value of the risk faced, while

the assets to be accepted as guarantee mechanism contribution in accordance with article 26 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, were identified as follows:

- Cash (in Turkish Lira /Convertible Foreign Currency)
- Government Domestic Debt Securities
- Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company (T.C. Hazine Varlık Kiralama A.Ş.),

**Core Principle 2: The FMI should establish prudent valuation practices and develop haircut practices in consideration of regularly tested and stressed market conditions.**

*Valuation Practices*

S.5.2.1: How often does the FMI value its collateral according to market prices? Does it perform valuation at least daily?

Takasbank performs daily valuation of assets, accepted as guarantee mechanism contribution for check clearing transactions. Assets accepted as guarantee mechanism contribution are valued at least at the end of every trading day at prices determined by Takasbank to ensure that they are valued at current market prices.

S.5.2.2: When market prices do not reflect actual prices of assets, to what extent is the FMI authorized to use discretion in asset valuation?

Prices announced by the CBRT are used in valuation of assets accepted as guarantee mechanism contribution for check clearing transactions. In accordance with Article 30 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management Rules, in case an issue is experienced in obtaining prices concerning valuation, the theoretical price manual published on Takasbank's website is used with respect to valuation of guarantee mechanism contribution.

*Haircut Practices*

S.5.2.3: How does the FMI determine the discount rate?

In accordance with article 23 of the Regulation on Operations of Payment and Securities Settlement Systems, it was stipulated that the System operator should pay attention to ensuring that credit, liquidity, and market risks of assets, accepted from the participants, are low; update pricing and discount rates for non-cash assets in parallel with the developments in financial markets; and establish an effective system to manage and monitor such assets.

Parametric, non-parametric, or simulation based statistical methods, which are deemed appropriate by our Bank, are used in calculation of valuation coefficients reflecting haircuts applicable to the guarantee mechanism contribution pursuant to the practices of our Bank. Credit risk, maturity, volatility in extraordinary market conditions, liquidity, and currency risk, if any, of the relevant asset, evaluated by Takasbank, are taken into consideration in determination of guarantee mechanism contribution valuation coefficients.

Statistical confidence level, to be used in calculations to be made, is considered as 99.90%, while the liquidation period to be used is considered as 2 business days. Historical data, to be used in calculations, should not be less than 1 year. Valuation coefficients for assets, which do not have sufficient or any historical data, are determined in comparison with coefficients calculated for assets with similar qualifications. Collateral valuation haircuts were determined and announced in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules;

S.5.2.4: How does the FMI test the adequacy (appropriateness) of haircut rates and how does it approve discount procedures also in consideration of the potential decreases in the value of assets, including liquidation of collateral under stressed market conditions? How often does the FMI conduct these tests?

The collateral valuation haircuts are calibrated before they are used by applying in-sample backtesting. If, in the last one-year period, the relative value changes calculated using the assets accepted as collateral, the collateral valuation haircuts and the holding periods exceed the discount factor by more than two business days; the valuation haircuts are calibrated by the multiplication factors. In case any excess hit by more than 5 business days; the data set, confidence level and model used are reviewed again.

Likewise, the haircuts used in collateral valuation are validated on a monthly basis by undergoing backtesting using out-of-sample data. If there is an exceedance over two business days on average in an asset group in the last one-year period and the valuation haircuts have not been subjected to any calibration before; these haircuts are calibrated with the multiplication factors; and if they have been previously calibrated, they are recalculated.

**Core Principle 3: The FMI should establish permanent and prudent haircuts, calibrated also in consideration of stressed market conditions, to the extent practicable and prudent, to reduce the need for procyclical adjustments.**

S.5.3.1: How does the FMI define and evaluate potential procyclical modifications of haircut calibrations? What does the FMI do to reduce the need for procyclical adjustments? (For example, considering stressed market conditions during adjustment of haircuts)

As explained in detail above (5.2), in accordance with article 23 of the Regulation on Operations of Payment and Securities Settlement Systems, it was stipulated that the System operator should pay attention to ensuring that credit, liquidity, and market risks of assets, accepted from the participants, are low; update pricing and discount rates for non-cash assets in parallel with the developments in financial markets; and establish an effective system to manage and monitor such assets. Accordingly; in the determination of valuation haircuts, minimum 5-year data set and 99.90% confidence level are used to take into account the volatility recorded in the collateral value under extreme market conditions, to reduce procyclicality and to set a prudent and stable level. Particular attention is paid to ensure that the data set covers the extreme volatilities experienced in the recent periods.

**Core Principle 5: An FMI that accepts cross-border collateral should minimize risks that might arise during the use of such collateral and ensure the usability of such collateral in a timely manner.**

S.5.5.1: What are the legal risk, operational risk, market risk, and other risks incurred by the FMI by accepting cross-border collateral? How does the FMI minimize these risks?

A security, that can be characterized as cross-border, is not currently accepted as guarantee mechanism contribution within the scope of check clearing transactions.

S.5.5.2: How does the FMI ensure that cross-border collateral is usable in a timely manner?

A security, that can be characterized as cross-border, is not currently accepted as guarantee mechanism contribution within the scope of check clearing transactions.

**Core Principle 6: The FMI should use a well-designed and operationally flexible collateral management system.**

*Collateral management system design*

S.5.6.1: What are the fundamental characteristics of the FMI's collateral management system?

In accordance with article 23 of the Regulation on Operations of Payment and Securities Settlement Systems, it was stipulated that the System Operator should pay attention to ensuring that credit, liquidity, and market risks of assets, accepted from the participants, are low; update pricing and discount rates for non-cash assets in parallel with the developments in financial markets; and establish an effective system to manage and monitor such assets. In this context, the risk and guarantee mechanism management system that is operated by our Bank works as a whole with accepted asset types, full-time update of margin requirements, end-of-day collateral valuation methodology, and rules that it has established to minimize all risks that might be encountered within the scope of check clearing transactions.

In accordance with paragraph 9 of article 23 of the Regulation on Operations of Payment and Securities Settlement Systems, assets provided by system participants to established mechanisms cannot be used for other purposes. Provisions of article 10 of the Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493 are applicable to legal follow-up processes for such assets. In addition, assets provided by the participants to the guarantee mechanism are followed separately from other assets of the participant in the system and own assets of the system operator. Such matters are specified in article 31 titled "Utilization of Guarantee Mechanism Contribution" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement and Risk Management System Rules.

S.5.6.2: How and to what extent does the FMI follow reuse of the collateral and rights concerning provided collateral?

In accordance with paragraph 9 of article 23 of the Regulation on Operations of Payment and Securities Settlement Systems, assets provided by system participants to established mechanisms cannot be used for other purposes. In addition, collaterals provided by the participants in accordance with this article and assets provided to the guarantee mechanism are followed separately from other assets of the participant in the system and own assets of the system operator.

In addition, it was stipulated that, if interest shall be accrued on cash assets, provided by the participants to the mechanisms established pursuant to this article, the system operator may evaluate assets, provided by system participants, in highly liquid low-risk investment instruments.

*Operational flexibility*

S.5.6.3: How and to what extent does the collateral management system of the FMI align with changes in current collateral monitoring and management matters?

The collateral management system is operationally flexible, allowing for determination of new limits, acceptance of different types of collateral and modification of applied risk parameters, where necessary.

S.5.6.4: To what extent do the collateral management system personnel ensure that the mentioned system runs smoothly, including stressed market conditions?

Collateral and Default Management Team is responsible for monitoring collateral and default management processes of check clearing transactions. Proper Management of collaterals, accepted in markets where CCP services are offered and the Check Clearing System where central clearing service is offered, is monitored closely by the relevant Team within Takasbank. The said Team is also responsible for the default management and has the rules and procedures for the management of collaterals under stress. A guarantee mechanism was established against potential defaults arising from risks concerning finalization of settlement transactions of participants. Liquidation levels of collaterals under stressed conditions, by means of parametric, non-parametric, or simulation-based statistical methods, are taken into consideration for haircut numbers to be used valuation of collaterals to be deposited for monthly updated contribution obligations was added to the description on operation of the collateral management system.

*Takasbank Assessment Result for CPMI-IOSCO Principle 5*

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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### **Principle 7: Liquidity Risk**

FMI should effectively measure, monitor, and manage its liquidity risks. An FMI should maintain sufficient resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or 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 at least generate the largest aggregate payment obligation in extreme but plausible market conditions.

### **Core Principle 1: The FMI should have a solid regulation and implementation procedure to manage liquidity risks that might arise from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.**

S.7.1.1: What kind of a regulation and an implementation procedure does the FMI have to manage liquidity risks arising from its participants, settlement banks, nostro agents, correspondent banks, liquidity providers, and other entities in all currencies?

Article 23 titled “Participation Collateral” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules stipulates the participation collateral, demanded at a fixed rate, to compensate Takasbank’s losses if the participants fail to fulfill their contribution, fee, commission, and other obligations to Takasbank within the granted period. Participation collateral is demanded in cash to ensure that liquidity risks are prevented in the market and the participant should complete the deficient amount in 5 business days following collections to be made from such collateral.

Besides, there is also the guarantee mechanism contribution practice against potential defaults arising from risks for finalization of settlement transactions on the market. Cash, GDDS, and lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company (T.C. Hazine Varlık Kiralama A.Ş.) are accepted as contribution and adequacy level is monitored daily.

It is considered that there is no need for a liquidity provider in the market to close positions and cover reverse orders during the default management process by definition of the system. In addition, it is considered that there is low probability of encountering an unfavorable situation in the process of liquidation of these as the assets, accepted by the CBRT on the system, are accepted as collateral.

S.7.1.2: What are the structures and sizes of liquidity needs of the FMI and the liquidity risks that might arise within the FMI in all currencies?

Settlement transactions are conducted in TRY under the Check Clearing System and, assets accepted as collateral to the guarantee fund contribution mechanism, to be used in case of failure to fulfill obligations in this scope, comprise highly liquid assets. On the other hand, it is considered that there is no need for a liquidity provider in the market to close positions and cover reverse orders during the default management process by definition of the system. In addition, it is

considered that there is low probability of encountering an unfavorable situation in the process of liquidation of these as the assets, accepted by the CBRT on the system, are accepted as collateral.

Liquidity adequacy ratios, calculated pursuant to the banking legislation for Takasbank's liquidity risk, are quite above legal lower limits. In addition, the difference of asset and liability items in maturity segments, which are monitored in weekly, monthly, quarterly, and longer periods, is calculated as positive; in other words, Takasbank does not have open positions in any maturity segment.

Furthermore, liquidity stress testing is conducted on a monthly basis for the total liquidity risk of the Bank, and it is reported to the Board of Directors through the Audit Committee. As the difference of asset and liability items is positive, an open position is created, although there is none under normal conditions, by increasing consideration rates of off-balance sheet liabilities with an artificial scenario in stress tests, and the level of covering the cost value, which should be incurred to fulfill the emerging liquidity need, with free equity amount is analyzed. As a result of conducted stress tests, it was concluded that the capital needed by the Bank, even under the extremely negative scenario, could be very easily covered by the Bank's capital and there was no action to be taken in this regard.

S.7.1.3: How does the FMI consider potential total (consolidated) liquidity risks of an entity, which has numerous roles concerning the FMI, and its subsidiaries?

Clearing and settlement transactions are conducted in national currency. In addition, it is ensured that the collaterals are sufficient in size, by applying collateral valuation haircuts to the assets eligible as collateral as guarantee mechanism contribution according to their cash conversion potential. In this context, 99.90% confidence level and 2-business day liquidation period are applied when calculating collateral valuation haircuts.

Furthermore, additional guarantee mechanism contribution is collected from three participants with the highest average concentration in the system and the guarantee mechanism contribution calculated for each participant cannot be less than the minimum amount specified in the system rules.

**Core Principle 2: The FMI should have effective operational and analytical tools to determine, measure, and monitor settlement and fund flows, including intra-day liquidity utilization, continuously and currently.**

S.7.2.1: Which operational and analytical tools does the FMI have to identify, measure, and monitor settlement and fund flows?

Methods and rules of settlement and fund flows were clearly specified in article 19 titled "Settlement Operations" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules.

Settlement transactions are monitored instantly, while participants that do not settle their debts by the last hour of settlement are contacted and informed. Debt settlement is realized when all participant fulfill their liabilities. If there is a liability that has not been settled by 12:00 PM,

receivables are distributed proportionately. When the deficient liability is settled, remaining receivables are also distributed proportionately.

In addition, the cash flows over the EFT system are monitored instantaneously and continuously through the position monitoring screen. The settlement payments within the processes are always executed with priority, considering the market times. CBRT payment systems defined and prioritized the said settlement times as critical hours also within the scope of business continuity.

S.7.2.2: How does the FMI use these tools to determine, measure, and monitor settlement and fund flows, including intra-day liquidity utilization, continuously and currently?

Takasbank has a strong fund management organization and infrastructure that it developed over time, thanks to the banking license that it obtained in 1995. Within the scope of liquidity risk management, Takasbank is able to continuously monitor the clearing & settlement transactions and fund flows by currencies, participants and accounts through in-house developed software; and the participants are also able to monitor their fund flows over their screens. In addition, online banking tools and SWIFT confirmations are used for the monitoring of such flows.

**Core Principle 3: A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or 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 payment obligation in extreme but plausible market conditions.**

S.7.3.1: How does the payment system/securities settlement system determine how much liquid resource it should have available in different currencies to perform settlement of payment obligations in the same day? Which potential stress scenarios does the payment system/securities settlement system use while making this decision?

All settlement transactions on the market are conducted in TRY. The calculation of guarantee mechanism contribution, which is determined monthly, is made as a result of multiplying the average balance, obtained by dividing the total amount of net debt amounts on days when each participant is in net debt to the System in the last 12 months to the number of business days in the last 12 months, with the probability of default coefficient. The coefficient in question is determined in consideration of market conditions and it is reviewed on a quarterly basis. In addition, valuation haircuts are applied to assets that are deposited as contribution. Statistical confidence level, to be used in calculations to be made, is considered as 99.90%, while the liquidation period to be used is considered as 2 business days. Historical data, to be used in calculations, should not be less than 1 year.

Furthermore, additional guarantee mechanism contribution is collected from three participants with the highest average concentration in the system and the guarantee mechanism contribution calculated for each participant cannot be less than the minimum amount specified in the system rules.



S.7.3.2: What is the estimated size of the liquidity deficit to be covered by the payment system/securities settlement system in different currencies?

All settlement transactions on the market are conducted in TRY and assets accepted as collateral comprise highly liquid assets.

**Core Principle 5: In respect of minimum liquid resource requirement fulfillment, liquid resources of an FMI in each currency comprise cash in the central bank (central bank that issues the relevant currency) and reliable commercial banks, committed lines of credit, committed foreign currency swaps and repo contracts and highly liquid collaterals, as well as investments that can be easily converted to cash pursuant to previously made funding arrangements with high reliability even under extraordinary but plausible market conditions. If the FMI has the opportunity to access routine credit mechanisms of the central bank, such credits may also be included in minimum requirement calculations to the extent of suitable collaterals that can be used to benefit from the mentioned mechanisms. All of these resources should be accessible when necessary.**

*The size and composition of liquid resources with necessary qualifications*

S.7.5.1: What do the liquid resources with necessary qualifications, kept by the FMI in each currency, involve and what is their size? How can these resources be made available for use by the FMI and how long does it take?

Participation collateral is demanded to compensate losses if the market participants fail to fulfill their contribution, fee, commission, and other obligations to Takasbank within the granted period. Participation collateral is demanded in cash to ensure that liquidity risks are prevented in the market. In addition, highly liquid cash (TRY, USD, EURO), GDDS, and lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company (T.C. Hazine Varlık Kiralama A.Ş.) are accepted as guarantee mechanism contribution.

Assets deposited as guarantee mechanism contribution are followed separately from both own assets of Takasbank and other assets of other participants in the system, and cannot be used for purposes other than their entrusting purpose. Such resources are readily available in case of need.

*The availability and inclusion of liquid resources with necessary qualifications*

S.7.5.2: What kind of pre-determined funding arrangements does the FMI have to liquidate collaterals and investments as necessary? How does the FMI ensure that these arrangements are executed reliably also under extraordinary but plausible market conditions? Has the FMI identified any obstruction to accessing its liquid resources?

Takasbank has a developed infrastructure and fund management function, which it can use in access to CBRT and commercial bank liquidity. Takasbank determined the order in which non-cash collaterals can be converted into cash if and when needed, and periodically monitors the lines of credit extended to it by other banks.

In addition, pursuant to article 31 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, if Takasbank can access liquidity

opportunities of CBRT or if it can obtain liquidity by borrowing from a financial institution against collateral, assets corresponding to contributions to the guarantee mechanism established by the participants might be provided by Takasbank to CBRT or the financial institution that offers credit facilities as collateral to benefit from liquidity opportunities, in compliance with the rules of such institutions on collaterals. There has been no obstacle met by Takasbank in the access to liquid resources so far.

S.7.5.3: If the FMI has access to routine credit opportunities offered by the central bank that issues the relevant currency, what is the borrowing capacity of the FMI using this method to fulfill minimum liquidity resource requirements?

As much as the securities, which can be provided as collaterals to the CBRT within the borrowing limits of Takasbank.

S.7.5.4: To what extent do the size and availability of the FMI's liquidity sources fulfill the pre-determined minimum liquidity requirements in each currency for the FMI to settle its payment obligations in a timely manner?

Under the Check Clearing System, Takasbank ensures finalization of clearing based on transaction collaterals. In order to ensure provision of liquidity in transaction collaterals, assets accepted as collateral by the CBRT in the system can be deposited. If necessary, Takasbank is capable of creating liquidity thanks to its banking license.

**Core Principle 6: The FMI may support its liquid resources with the necessary qualifications with other liquid resource types. If the FMI adopts this course of action, these resources should be saleable or usable as collateral for lines of credit, repos, and swap transactions, even if utilization in extraordinary market conditions is not pre-arranged or guaranteed. Even if the FMI does not have access to routine central bank credit opportunities, it should consider which assets are accepted as collateral by relevant central banks under the assumption that they will be more liquid in stressed periods and use these assets in collateral applications. The FMI should not consider credits to be provided by the central bank in emergencies as part of the liquidity plan to be prepared.**

*The size and composition of supplemental liquid resources*

S.7.6.1: What do the supplemental liquidity resources, accessible by the FMI, involve and what is their size?

There is no supplemental liquidity resource other than the participation collateral and guarantee mechanism contribution in the check clearing system.

*Availability of supplemental liquid resources*

S.7.6.2: How did the FMI identify that these resources were saleable or usable as collateral for lines of credit, repos, and swap transactions, even if utilization in extraordinary market conditions is not prearranged or guaranteed.

There is no supplemental liquidity resource other than the participation collateral and guarantee mechanism contribution in the check clearing system.

S.7.6.3: To what extent are the supplemental assets accepted as potential collateral by the relevant central bank?

There is no supplemental liquidity resource other than the participation collateral and guarantee mechanism contribution in the check clearing system.

S.7.6.4: In which cases will the FMI use such supplemental liquid resources in addition to or before currently available liquidity resources?

There is no supplemental liquidity resource other than the participation collateral and guarantee mechanism contribution in the check clearing system.

S.7.6.5: To what extent to the size and availability of supplemental liquidity resources of the FMI fulfill the liquidity requirements determined in the stress testing conducted to determine the liquidity requirements of the FMI, along with other liquid resources with necessary qualifications?

There is no supplemental liquidity resource other than the participation collateral and guarantee mechanism contribution in the check clearing system.

**Core Principle 7: The FMI should have, as a result of due diligence studies to be conducted meticulously, a high degree of confidence on capability of participants or external (third) parties, which shall provide liquid resources to the FMI, to have adequate knowledge to understand and manage the liquidity risks that they shall incur due to liquid resources to be provided to the FMI and to provide committed liquidity as necessary. While reliability of the performance of a liquidity provider is evaluated, access of the liquidity provider to credit opportunities provided by the relevant central bank can be considered as well. The FMI should regularly test its access to liquid resources held by liquidity providers.**

#### *Use of liquidity providers*

S.7.7.1: Does the FMI use liquidity providers to fulfill minimum liquidity requirements? Who are the liquidity providers of the FMI? How and on which grounds does the FMI determine that such liquidity providers continuously have adequate knowledge to understand and manage the liquidity risks arising from their relationships with the FMI for each relevant currency, including under stressed market conditions?

There is no liquidity provider structure concerning the market in the check clearing system. In connection with liquidation of collaterals; if Takasbank can access liquidity opportunities of CBRT or if it can obtain liquidity by borrowing from a financial institution against collateral, assets corresponding to contributions to the guarantee mechanism established by the participants might be provided by Takasbank under the provisions of paragraph 4 of article 31 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules to CBRT or the financial institution that offers credit facilities as collateral to benefit from liquidity opportunities, in compliance with the rules of such institutions on collaterals.

### *Reliabilities of liquidity providers*

S.7.7.2: How does the FMI determine that its liquidity providers are capable of fulfilling their commitments for each currency?

There is no liquidity provider structure concerning the market in the check clearing system.

S.7.7.3: How does the FMI consider the access potential of the liquidity provider to credit opportunities of the central bank that issues the relevant currency?

There is no liquidity provider structure concerning the market in the check clearing system.

S.7.7.4: How does the FMI test its timely access to its liquid resources in a liquidity provider and the reliability of such access?

There is no liquidity provider structure concerning the market in the check clearing system.

**Core Principle 8: An FMI that has access to Central Bank accounts, payment services, or security services should use such services to improve liquidity risk management in practice.**

S.7.8.1: To what extent does the FMI have access or opportunity to access accounts, payment services, and securities services in relevant central banks, which can be used to conduct payment and settlement operations and manage liquidity risk?

Takasbank has a first-degree access right as it is a payment and security settlement system member and also has a banking license.

Thanks to its banking license, Takasbank has the right of access to the liquidity of the CBRT and also operates in an integrated manner with the Turkish Lira, Electronic Funds Transfer (EFT) and Electronic Securities Transfer System (ESTS) within the CBRT's system.

S.7.8.2: To what extent does the FMI use such services to perform payment and securities activities and reduce liquidity risk?

Takasbank has a first-degree access right as it is a payment and security settlement system member and also has a banking license.

CBRT EFT system is used in fulfillment of settlement obligations, while EFT, SWIFT, CBRT ESTS systems are used in fulfillment of guarantee mechanism obligations.

S.7.8.3: To what extent does the FMI analyse the development potential of liquidity risk management by expanding services offered by the central bank if the FMI uses certain services other than those offered by the relevant central bank?

In Takasbank Check Clearing System, CBRT EFT system is used in fulfillment of settlement obligations, while EFT, SWIFT, CBRT ESTS systems are used in fulfillment of guarantee mechanism obligations. Services offered by another institution are not used.

S.7.8.4: What are the areas that the FMI considers expanding utilization of relevant services of the central bank, if any?

It is planned to integrate CBRT FAST System, limited to amounts determined by the service provider, CBRT.

**Core Principle 9: The FMI should regularly check the amount and adequacy of liquid resources by means of carefully conducted stress testing. The FMI should have clear procedures in terms of reporting stress testing results to decision makers and using such results for adequacy and adjustment of financial resources. The FMI should consider several scenarios in a wide range while stress tests are conducted. The scenarios should involve the highest price volatilities in the past, changes in other factors impacting the market such as factors that determine prices and yield curve, multiple defaults occurring in various time frames, simultaneous pressures occurring in funding and asset markets, and future stress scenarios under extremely extraordinary but plausible market conditions. The scenarios should also involve the FMI's design and activities, all institutions that may impose significant liquidity risk on the FMI (settlement banks, nostro agents, custodian banks, liquidity providers, affiliated FMIs), and periods including multiple days, as appropriate. In any case, the FMI should document supporting rationale concerning amount and contents of total liquid assets in its possession and have proper management regulations concerning these.**

#### *Stress testing program*

S.7.9.1: How does the FMI use stress testing to measure amount and adequacy of liquidity resources in each currency? How often does the FMI conduct stress testing on its liquid assets?

Takasbank tests the adequacy of its financial resources in the check clearing system on a yearly basis. Pursuant to İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, resources to be utilized in the event of default of system participants are as follows:

- Guarantee mechanism contribution of the system participant in default
- Deposited guarantee mechanism contributions of other system participants.

Accordingly, a stress testing program, specific to the check clearing system, is implemented as follows.

- With stress tests, the sufficiency of current and potential financial resources is tested considering settlement obligations of system participants that occur under extraordinary market conditions.
- The stress testing program analyses the adequacy of the size of the guarantee mechanism, established for the check clearing system, in the event of default of system participants.
- In respect of stress testing methodology, the adequacy of guarantee mechanism is tested in consideration of the number of participants, whose daily net settlement obligation is lower than the size of guarantee mechanism on the market as of the relevant day.
- During the stress testing study covering January 2023-December 2023, it was identified that, on average, 92% of system participants had lower net settlement liabilities than the size of the guarantee mechanism.

- Within the scope of stress testing, adequacy of liquid resources in the guarantee mechanism are assessed as well. Cash (TRY, USD, EURO), government domestic debt instruments, and lease certificates are accepted as guarantee mechanism contribution under the check clearing system, while total valued contribution amount comprises 78% government domestic debt instruments, 21% cash, and 1% lease certificates as of 29/12/2023. Thus, it is seen that 100% of the guarantee mechanism comprises liquid assets.

S.7.9.2: What is the process on reporting the FMI's liquidity stress testing results regularly to the appropriate decision makers within the FMI to support timely assessment and adjustment of amount and contents of the FMIs liquid resources, as well as the liquidity risk management framework?

Takasbank annually tests the adequacy of financial resources in the check clearing system and adequacy of liquid resources within such resources. Pursuant to İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, resources to be utilized in the event of default of system participants are as follows:

- Guarantee mechanism contribution of the system participant in default
- Deposited guarantee mechanism contributions of other system participants.

Accordingly, a stress testing program, specific to the check clearing system, is implemented as follows.

- With stress tests, the sufficiency of current and potential financial resources is tested considering settlement obligations of system participants that occur under extraordinary market conditions.
- The stress testing program analyses the adequacy of the size of the guarantee mechanism, established for the check clearing system, in the event of default of system participants.
- In respect of stress testing methodology, the adequacy of guarantee mechanism is tested in consideration of the number of participants, whose daily net settlement obligation is lower than the size of guarantee mechanism on the market as of the relevant day.
- Within the scope of stress testing, adequacy of liquid resources in the guarantee mechanism are assessed as well. Under the check clearing system, cash (TRY, USD, EUR), government domestic debt instruments, and lease certificates are accepted as guarantee mechanism contribution.
- Within the scope of the liquidity stress testing, assets accepted to the guarantee fund contribution mechanism are accepted as liquid resource if they are also accepted as collateral by the CBRT.

#### *Stress testing scenarios*

S.7.9.3: Which scenarios are used in stress testing and to what extent do these scenarios involve the highest price volatilities in the past, changes in other factors impacting the market such as factors that determine prices and yield curve, multiple defaults occurring in various time frames,

simultaneous pressures occurring in funding and asset markets, and future stress scenarios under various extraordinary but plausible market conditions?

In respect of check clearing system stress testing methodology, the adequacy of guarantee mechanism is tested in consideration of the number of participants, whose daily net settlement obligation is lower than the size of guarantee mechanism on the market as of the relevant day.

During the stress testing study covering January 2023-December 2023, it was identified that, on average, 92% of system participants had lower net settlement liabilities than the size of the guarantee mechanism.

Within the scope of stress testing, adequacy of liquid resources in the guarantee mechanism are assessed as well. Cash (TRY, USD, EURO), government domestic debt instruments, and lease certificates are accepted as guarantee mechanism contribution under the check clearing system, while total valued contribution amount comprises 78% government domestic debt instruments, 21% cash, and 1% lease certificates as of 29/12/2023. Thus, it is seen that 100% of the guarantee mechanism comprises liquid assets.

S.7.9.4: To what extent do scenarios and stress tests consider payment and settlement structure of the FMI (real time gross settlement or netting principle, with or without settlement guarantee, DvP 1, 2, or 3 models, etc. matters) and liquidity risks arising directly from the FMI, its participants, or both?

In respect of check clearing system stress testing methodology, the adequacy of guarantee mechanism is tested in consideration of the number of participants, whose daily net settlement obligation is lower than the size of guarantee mechanism on the market as of the relevant day.

During the stress testing study covering January 2023-December 2023, it was identified that, on average, 92% of system participants had lower net settlement liabilities than the size of the guarantee mechanism.

Within the scope of stress testing, adequacy of liquid resources in the guarantee mechanism are assessed as well. Cash (TRY, USD, EURO), government domestic debt instruments, and lease certificates are accepted as guarantee mechanism contribution under the check clearing system, while total valued contribution amount comprises 81% government domestic debt instruments, 17% cash, and 2% lease certificates as of 29/12/2023. Thus, it is seen that 100% of the guarantee mechanism comprises liquid assets.

S.7.9.5: To what extent do such scenarios and stress tests consider the nature and aspect of the sources of liquidity needs and liquidity risks that may occur in the FMI due to timely settlement of payment obligations, including the potential of certain entities and their subsidiaries to assume several roles concerning the FMI?

In respect of check clearing system stress testing methodology, the adequacy of guarantee mechanism is tested in consideration of the number of participants, whose daily net settlement obligation is lower than the size of guarantee mechanism on the market as of the relevant day.

During the stress testing study covering January 2023-December 2023, it was identified that, on average, 92% of system participants had lower net settlement liabilities than the size of the guarantee mechanism.

Within the scope of stress testing, adequacy of liquid resources in the guarantee mechanism are assessed as well. Cash (TRY, USD, EURO), government domestic debt instruments, and lease certificates are accepted as guarantee mechanism contribution under the check clearing system, while total valued contribution amount comprises 78% government domestic debt instruments, 21% cash, and 1% lease certificates as of 30/12/2022. Thus, it is seen that 100% of the guarantee mechanism comprises liquid assets.

### *Review and approval*

S.7.9.6: How often does the FMI assess effectiveness and conformity of assumptions and parameters in respect of stress testing? How does the FMI's stress testing program consider various matters such as the model risk involving sudden and important increases in positions and price volatility, concentrations to be experienced in certain positions, market liquidity change, and parameter change?

Parameters used in the universal stress testing performed within the scope of ICAAP Report are reviewed on an annual basis.

S.7.9.7: How does the FMI approve the risk management model? How often does this approval process take place?

In accordance with article 25 titled "Guarantee Mechanism Contribution Determination Method" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management Rules, guarantee mechanism contribution is determined on a monthly basis. Guarantee mechanism contribution is calculated by multiplying the average balance, obtained by dividing the total amount of net debt amounts on days when each participant is in net debt to the System in the last 12 months to the number of business days in the last 12 months, with the probability of default coefficient.

The coefficient, which represents the average probability of default of system participants, is determined by Takasbank in consideration of market conditions and reviewed on a quarterly basis. It can be revised without waiting for the quarterly period to expire if deemed necessary. Additional guarantee mechanism contribution is collected from three participants with the highest average concentration in the system. Basis parameter for calculation of the additional contribution to be collected is determined by Takasbank in consideration of market conditions and it is revised quarterly.

Other details on the risk management model are specified in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules. System Rules can be amended with CBRT approval, following approval of Takasbank's Board of Directors.

S.7.9.8: Where and in which scope does the FMI convert its supporting rationale and management regulations concerning the structure and amount of its total liquid resources?



Our Bank documents its regulations concerning structure and management regulations of total liquid resources with Takasbank Fund Management Strategies Directive approved by the Board of Directors. Measurements concerning amount and maturity of total liquid assets are monitored daily with our core banking system software.

**Core Principle 10: The FMI should establish clear rules and procedures that can ensure performance of settlement for payment obligations in a timely manner (same day, intraday, or multiple times per day) if its participants go into default individually or collectively. Such rules and procedures should be intended for unforeseeable liquidity deficits that might not be covered, and aim to avoid disruption, cancellation, and postponement of same-day settlements of payment obligations. Such rules and procedures should also clearly indicate the re-provision process for resources that can be used at the moment of stress to ensure that the FMI is capable of maintain its operations in a safe and solid manner.**

#### *Same-day settlement*

S.7.10.1: How do the FMI's rules and procedures ensure that settlement for payment obligations are performed in a timely manner if its participants go into default individually or collectively?

Principles, applicable in case of the failure to fulfill obligations to the Check Clearing System in due time for any reason, are clearly stipulated as follows in Section Five titled "Default and Aggrievement Payment Transactions" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules;

- Obligation for settlement transactions should be fulfilled by 12:00 PM (including 12:00 PM),
- End-of-day guarantee mechanism contribution margin call obligations, calculated by Takasbank, should be fulfilled by 11:00 AM (including 11:00 AM),
- Default interest shall be collected from participants that fulfill their obligations with same-day value but after the determined time and participants that fulfill their obligations not with same-day value but in the following days, by applying different coefficients,
- Default penalty is calculated on the basis of calendar days between the date of default and the fulfillment date of obligation,
- In case of default, Takasbank may not permit the participant to withdraw the guarantee mechanism contributions in their relevant accounts, and checks of such participant, which have not been subject to netting as of the default date, may be excluded from netting,
- Takasbank may grant the participant an extension to eliminate the default until at the latest 10:00 AM on the business day following the date of default and, if the default is not eliminated by the end of granted period, guarantee mechanism contribution deposited by the defaulting participant shall be liquidated primarily,
- If the default amount in question cannot be covered, assets of non-defaulting participants subject to the guarantee mechanism contribution shall be liquidated and obtained amount

shall be distributed to claimant participants on the date of default in proportion to their claims,

- In fulfillment of cash obligations, the time of entry of money to the free cash account of Takasbank in the CBRT is taken into account for payments made with EFT, while transaction time is taken into account in payments made by means of transfer from accounts in Takasbank,
  - Details of the interest used in default interest calculation,
  - Default interest calculation method,
  - Accrual, notification, and collection,
  - Rules on Aggrievement Payment

S.7.10.2: How do the FMI's rules and procedures address unforeseeable liquidity deficits that seem not possible to be covered, and how do they prevent undesired events such as invalidation, postponement, or delay of same-day settlements of payment obligations?

The size of Guarantee Fund contribution available in the system is calculated by multiplying the average balance, obtained by dividing the total amount of net debt amounts on days when each participant is in net debt to the System in the last 12 months to the number of business days in the last 12 months, with the probability of default coefficient. The coefficient, which represents such average probability of default, is determined by Takasbank in consideration of market conditions and reviewed on a quarterly basis. Assets that may be deposited by system participants in this scope are subject to deduction with valuation coefficients. Credit risk, maturity, volatility in extraordinary market conditions, liquidity, and currency risk, if any, of the relevant asset, evaluated by Takasbank, are taken into consideration in determination of guarantee mechanism contribution valuation coefficients. In addition, statistical confidence level, to be used in calculations to be made, is considered as 99.90%, while the liquidation period to be used is considered as 2 business days. Historical data, to be used in calculations, should not be less than 1 year.

Article 22 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules contains provisions on settlement finality. In this context, transfer order cannot be withdrawn by Takasbank, participant, or a third party as of the performance moment of netting. In addition, default provisions are applicable to obligations that have not been fulfilled in due time, without the need for any notice. The participants are responsible for completion of clearing and settlement provisions in due time and Takasbank does not provide any guarantee in this regard.

#### *Re-provision of financial resources*

S.7.10.3: How do the FMI's rules and procedures make it possible to re-provide the liquidity resources that were used at the moment of stress?

If participants fail to fulfill their contribution, fee, commission, and other obligations to Takasbank within the granted period, participants are expected to complete the relevant collateral to the

necessary amount within 5 business days in case of utilization of the participation collateral demanded in cash to cover losses.

In addition, Takasbank monitors adequacy of assets, deposited as guarantee mechanism contribution, at least daily. If such assets drop below the contribution amount determined by Takasbank due to the increase of guarantee mechanism contribution of the participant, changes in valued guarantee mechanism contribution amount, or other reasons; Takasbank makes a guarantee mechanism contribution margin call at the end of every business day. Participants should fulfill their guarantee mechanism margin call obligations at the latest by 11:00 AM on the next business day. Default provisions shall be applicable to obligations that cannot be fulfilled in the mentioned period.

***Takasbank Assessment Result for CPMI-IOSCO Principle 7:***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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## **Principle 8: Settlement Finality**

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

### **Core Principle 1: Finalization moment of settlement should be defined clearly in the FMI's rules and procedures.**

#### *Finalization moment of settlement*

S.8.1.1: When does the settlement of payments, transfer orders, or other obligations become final, in other words, irrevocable and unconditionally definite? Is the finalization moment of settlement defined and put in writing? How and to whom is this information notified?

It was clearly defined in clause (aa) of paragraph 1 of article 4 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that the “Transfer Order” definition meant “participant order ensuring that check details are transferred to the System with clearing packages for the purpose of transferring a certain amount of funds among participants within the system”, and it was explained in article 22 titled “Settlement Finality” that;

- Provisions of article 10 of the Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493, issued in the Official Gazette no. 28690 of 27/06/2013, were applicable to settlement finality,
- The moment of entry of the transfer order to the system was the moment of conveyance of settlement packages by the participants to the System within the periods determined in the System Rules,
- Any measure and decision stipulated by laws, including suspension, restriction, or permanent interruption of clearing and settlement transactions of the participant, shall be applicable to transfer orders input to the system following notification of Takasbank about such measure and decision,
- Transfer orders, entered to the System before notification of any measure and decision, mentioned in paragraph 3, to Takasbank shall be included in the netting and settlement transaction,
- Transfer order cannot be withdrawn by Takasbank, participant, or a third party as of the performance moment of netting,
- It was explained with regard to transactions performed under the check clearing activity regulated by law, precluding disposition of the participant to make transactions with funds, including suspension, restriction, or discontinuation of fund transfers, that;

- If operations of the participant are discontinued or any matter obstructing continuation of operations is identified, CBRT shall be informed by means of the fastest means of communication,
- Transfer order is deemed to have been finalized upon netting and settlement transactions for arising debts and receivables are concluded as a result of netting,
- Guarantee mechanism contribution, established by the participant with its existing cash and security balances available in Takasbank, shall be used to settle their obligations regarding the System,
- Measures and decisions mentioned in paragraph 3 shall not be applicable to collaterals.

S.8.1.2: How do the legal framework and rules governing the FMI, including bankruptcy arrangements, verify with the FMI and its participants that payment, transfer order, and other obligations between participants are fulfilled?

Article 10 of Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493 stipulates that the moment when a transfer order becomes irrevocable shall be clearly determined in the system rules and the transfer order cannot be withdrawn by the participant or a third party after that moment, all kinds of measures and decisions that are regulated by laws and preclude the participant or the system operator to make transactions with funds or securities including the temporary suspension, imposition of restrictions, or permanent suspension of a participant's or system operator's fund or securities transfers shall apply only to the transfer orders that will enter into the System after the notification regarding the aforementioned measures and decisions is made to the system operator.

Paragraph 1 of article 22 of the System Rules refer to the relevant article of the law.

S.8.1.3: How does the FMI prove that there is high degree of legal certainty in respect of ensuring settlement finality in all applicable jurisdictions (for example, by receiving a well-justified legal opinion)?

Check Clearing Service is provided only in TRY currency through the banks operating in Türkiye. Therefore, Check Clearing Services is not directly governed by legal elements of a jurisdiction.

**Core Principle 2: The FMI should complete final settlement at the latest by the end of the value date (maturity date), preferably within the day or in real time, to mitigate settlement risk. An LVPS or SSS should consider using real time direct settlement or multiple batch processing methods on the settlement day.**

*Final settlement on the value date/maturity date*

S.8.2.1: Was the FMI's final settlement designed so as to be completed on the value date (or same-day settlement)? How does the FMI ensure that the final settlement is not realized at a later time than the end of scheduled value date?

It is indicated in article 20 titled “Settlement transactions” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that the settlement clearing date is 12:00 AM on day T+1 day, while article 19 contains the following provisions:

- (1) General debt and receivable balances belonging to the participants, occurring according to the clearing transactions statement, are final and all obligations must be fulfilled by the deadline specified in article 20.
- (2) Net cash liabilities are fulfilled by direct transfer with EFT to the settlement account opened on a participant basis in Takasbank, or by transfer between Takasbank cash accounts.
- (3) Cash receivables are credited to the “Members’ Free Account” no. 11 of the participants in Takasbank.
- (4) According to the preferences of participants, using the screen to be made available to them, cash receivables may;
  - a) Be transferred by EFT to free cash accounts in CBRT,
  - b) Remain in free current accounts no. 11 in Takasbank,
  - c) Be sent to the intermediary bank account to be identified.
- (5) A parametric minimum amount, determined by Takasbank, may be taken into consideration in sending settlement receivables by EFT.
- (6) All participants are expected to fulfill their total net debt closing liabilities in order for settlement receivables to be distributed.
- (7) Partial debt closing may be performed using the settlement account.
- (8) If all liabilities are fulfilled before the specified deadline, receivables are distributed without waiting for the settlement deadline.
- (9) In case a liability is not fulfilled by the settlement deadline, partial receivable distribution is not made and settlement deadline is waited.
- (10) If a liability is not fulfilled by the settlement deadline, deficient amount shall be proportionately allocated and distributed to all participations.
- (11) When the deficient liability is fulfilled by the defaulting participant or from the guarantee mechanism contribution of such participant, receivable amount shall be proportionately sent to all participants in the same manner.
- (12) In case there is any unfulfilled obligation at the end of the day on the settlement date, the settlement is finalized with default.
- (13) Termination of the event of default is limited to the guarantee mechanism contribution amount deposited by the participants.

S.8.2.2: Was a delay experienced, under which final settlement was realized on the system on the business day following the value date, despite not being stipulated in the FMI’s rules, procedures, and contracts? If experienced, under what circumstances? If the delay was caused by the FMI’s

operations, which measures were taken to prevent similar events from being experienced again in the future?

There has been no delay, where final settlement took place on the business day following the value date, since 02/07/2018, when Takasbank started to operate the Check Clearing System.

#### *Intra-day or real-time final settlement*

S.8.2.3: Does the FMI offer intra-day or real-time final settlement? If so, how does it do this? How are the participants informed with respect to final settlement?

Under the Check Clearing System, details and images of checks, pertaining to the checks received by the Banks within the day, are reported to Takasbank with the clearing package by 06:00 AM in the next day (T day). Check details, transferred by banks to the System via clearing packages at 06:00, are sent to drawee banks with the clearing distribution package prepared by Takasbank for provisioning. Banks analyze the details, submitted with the clearing distribution package, from 06:01 AM to 5:45 PM on the relevant clearing day and transfer back to Takasbank system with return packages. Returned distribution package and returned check details are sent by the System after return closing.

Following completion of return distribution procedures, net cash debt/receivable details, to be paid by the participants to the system on the next day, are received by the participants through the system.

Cash liabilities are sent by banks to the CEKTK settlement account opened in Takasbank at the latest by 12:00 PM on the following business day (T+1 day) .

All transactions are monitored online by the participants on screens.

S.8.2.4: If settlement is ensured by multiple group processing method, what is the group frequency and in which time intervals does it run? What happens if a participant does not have sufficient funds or securities at the moment of settlement? Are transactions carried over to the following group? If so, what is the status of these transactions and when do they finalize?

Check details in clearing packages and details in return packages are compared and netting is performed once a day (at T day return distribution time). Participants become claimant or debtor as a result of netting.

Settlement transactions should be completed at the latest by 12:00 PM on T+1 day.

All participants are expected to fulfill their total net debt closing liabilities in order for settlement receivables to be distributed.

Partial debt closing may be performed using the settlement account.

If all liabilities are fulfilled before the specified deadline, receivables are distributed without waiting for the settlement deadline.

In case a liability is not fulfilled by the settlement deadline, partial receivable distribution is not made and settlement deadline is waited.

If a liability is not fulfilled by the settlement deadline, deficient amount shall be proportionately allocated and distributed to all participations.

When the deficient liability amount is fulfilled by the defaulting participant or from the guarantee mechanism contribution of such participant, receivable amount shall be proportionately sent to all participants in the same manner.

In case there is any unfulfilled obligation at the end of the day on the settlement date, the settlement is finalized with default.

Termination of the event of default is limited to the guarantee mechanism contribution amount deposited by the participants.

**Core Principle 3: The FMI should clearly define the moment when payments, transfer orders, or other obligations which have not been settled cannot be withdrawn by a participant.**

S.8.3.1: How does the FMI define the moment when payments, transfer orders, or other obligations which have not been settled cannot be withdrawn by a participant? How does the FMI prevent unilateral withdrawal of payments, transfer orders, and other obligations which were accepted but not settled?

It was clearly defined in clause (aa) of paragraph 1 of article 4 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that the Transfer Order definition meant “participant order ensuring that check details are transferred to the System with clearing packages for the purpose of transferring a certain amount of funds among participants within the system”, and it was determined in article 22 titled “Settlement Finality” that the moment of entry of the transfer order to the system was the moment of conveyance of settlement packages by the participants to the System within the periods determined in the System Rules. Article 10 of ÖSK also contains provisions on settlement finality.

In this context, transfer order is irrevocable as of the moment when the transfer order is finalized on the system. The participant may only request update or cancellation of settlement package until the finalization moment of the transfer order by sending a written instruction to Takasbank. Participants cannot cancel settlement packages through their own screens.

S.8.3.2: Under which circumstances is it possible to withdraw an order or obligation accepted to the system for settlement (for example, orders in queue)? How and by whom may the payment or transfer orders, settlements of which have not been completed, be canceled?

Transfer order is irrevocable as of the moment when the transfer order is finalized on the system.

The participant may only request update or cancellation of settlement package until the finalization moment of the transfer order by sending a written instruction to Takasbank. Participants cannot cancel settlement packages through their own screens.



Check details in clearing packages and details in return packages are compared, return distribution details are sent to banks, and netting is performed. Settlement file is generated upon netting transaction and it cannot be canceled by either the participant or Takasbank.

S.8.3.3: Under which conditions does the FMI permit cancellation-related exemptions and period extension?

Irrevocability of transfer is clearly specified and there is no exemption in article 10 of the Law no. 6493 on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions.

S.8.3.4: Where does the FMI define this information? How and to whom is this information disclosed?

Irrevocable and irreversible nature of transfer order is clearly specified in the Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Law no. 6493 and İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, announced to the participants with a general letter, and the System Rules are published on our corporate website.

***Takasbank Assessment Result for CPMI-IOSCO Principle 8***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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## **Principle 9: Money Settlement**

The FMI should perform money settlement with the central bank's money, if possible and if it is capable. If central bank money is not used, the FMI should minimize and strictly control the credit and liquidity risk arising from using commercial bank money.

### **Core Principle 1: In order to prevent credit and liquidity risk, the FMI should perform money settlement with central bank money if possible and if it is capable.**

S.9.1.1: How does the FMI perform money settlement? In case of settlement in multiple currencies, how does the FMI perform settlement in each currency?

Article 21 titled "Currency" in section 3 titled "Principles for Clearing and Settlement Transactions" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules contains the following statement;

- Transaction currency is used in payment of cash liabilities arising from settlement transactions.

Currently, checks issued in TRY are cleared and settled under Takasbank Check Clearing System. Clearing of checks, issued in foreign currency, are currently cleared outside the Check Clearing System. If FX checks are included in the system, settlement shall be performed in the check issuance currency, whereas debt and receivable details shall be generated in the relevant currency.

S.9.1.2: If the FMI does not perform settlement using central bank money, why doesn't it use central bank money?

Owning the banking license, Takasbank conducts its money settlements in the accounts opened at Takasbank, and neither central bank money nor commercial bank money is used in money settlements.

In the CBRT legislation, there is no arrangement stipulating the provision of money settlement service. Actually, due to the facts that Takasbank owns a banking license, that it has the right of access to the liquidity of the CBRT, that it executes the settlements at itself using the CBRT payment systems, and that no commercial bank money is used in settlements, and thus, it is not exposed to credit and liquidity risk; there is no need to use the CBRT money in settlements.

### **Core Principle 2: If Central Bank money is not used, the FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.**

S.9.2.1: If Central Bank money is not used, how does the FMI evaluate credit and liquidity risk of the settlement asset used for money settlement?

TRY drawing accounts in Takasbank are used in money settlements, liabilities are kept in settlement accounts, and money transfers are made through CBRT electronic payment systems (EFT system).

S.9.2.2: If the FMI performs settlement with commercial bank money, how does the FMI select settlement banks? What are the specific criteria used by the FMI for this selection?

Takasbank does not use commercial banks for money settlements. The participants transfer their liabilities, arising from settlement transactions, by means of CBRT EFT system to relevant settlement accounts held in Takasbank.

**Core Principle 3: If the FMI performs settlement transactions with commercial bank money, the FMI should review, manage, and limit credit and liquidity risk arising from commercial settlement banks. In this context, the FMI should establish strict criteria for settlement banks, considering its legislation and audit, creditworthiness, capital amount, liquidity access, and operational reliability among other things, and monitor compliance with the criteria. The FMI should also monitor and manage credit and liquidity risk concentrations that it exposes commercial settlement banks.**

Owning the banking license, Takasbank conducts its money settlements in the accounts opened at Takasbank; and no commercial bank money is used in money settlements. In this context, the following questions were not answered.

S.9.3.1: How does the FMI monitor compliance with the criteria that it uses in selection of settlement banks? For example: How does the FMI assess regulations and audit, creditworthiness, capital amount, liquidity access, and operational reliability of banks?

S.9.3.2: How does the FMI monitor, manage, and limit credit and liquidity risks arising from commercial settlement banks? How does the FMI monitor and manage credit and liquidity risk concentrations that it exposes these banks to?

S.9.3.3: How does the FMI assess potential losses and liquidity pressures of itself and its participants if the largest settlement bank goes bankrupt?

**Core Principle 4: If the FMI performs money settlement in its own accounts, it should minimize and strictly control credit and liquidity risk.**

S.9.4.1: In case the FMI performs money settlement in its own accounts, how does it minimize and strictly control credit and liquidity risk?

Takasbank conducts its money settlements in the accounts opened by its participants as Takasbank; and it has the knowledge, experience, organization, legislation and technical infrastructure to minimize and ideally manage its credit and liquidity risks.

**Core Principle 5: Legal agreements made by the FMI with settlement banks should clearly state when transfers on the books of settlement banks are expected to occur, that transfers shall become final when they are made, and that received funds should be transferable as soon as possible, at least at the end of the day and ideally within the day, to enable the FMI and its participants to manage the credit and liquidity risk.**

Owning the banking license, Takasbank conducts its money settlements in the accounts opened at Takasbank; and no commercial bank money is used in money settlements. In this context, the following questions were not answered.

S.9.5.1: Do the legal agreements made by the FMI with settlement banks state when transfers will be made, that transfers shall become final when they are made, and when received funds shall be transferable?

S.9.5.2: Do received funds become transferable at the latest by the end of the day? If not, why?

***Takasbank Assessment Result for CPMI-IOSCO Principle 9***

<b>Observed</b> <input type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input checked="" type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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## **Principle 12: Exchange of Value Settlement Systems**

If the FMI performs settlement of transactions involving settlement of two linked liabilities such as securities and FX exchange transaction, it should eliminate the principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

**Core Principle 1: An FMI with an exchange of value settlement system should eliminate principal risk by ensuring that final settlement of an obligation is made only upon final settlement of the linked obligation, regardless of whether direct or netting procedure is employed and the occurrence time of settlement finality.**

The following questions were not answered as exchange-of-value settlement is not made under the Check Clearing System.

S.12.1.1: How do the legal, contractual, technical, and risk management frameworks of the FMI ensure that final settlement of relevant financial instruments eliminate the principal risk? Which procedures ensure that final settlement of an obligation is realized only when the final settlement of a linked obligation is made?

Exchange-of-value settlement is not made under the Check Clearing System.

S.12.1.2: How are linked obligations settled? Directly or according to the netting principle?

Exchange-of-value settlement is not made under the Check Clearing System.

S.12.1.3: Is settlement finality of linked obligations simultaneous? If not, when is the finality of obligations ensured? Was the length of time between blocking and final settlement minimized for both obligations? Are blocked assets protected against third party claims?

Exchange-of-value settlement is not made under the Check Clearing System.

### ***Takasbank Assessment Result for CPMI-IOSCO Principle 12***

<b>Observed</b> <input type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input checked="" type="checkbox"/>
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### **Principle 13: Default Rules and Procedures**

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed in a manner to enable the FMI to take action in time and to fulfill its obligations in order to constrain losses and liquidity pressures.

**Core Principle 1: The FMI should have default rules and procedures ensuring that the FMI continues to fulfill its liabilities in case of the default of a participant and involving recovery of resources used in case of default.**

#### *Participant default rules and procedures*

S.13.1.1: Do the FMI's rules and procedures clearly define default incident (financial or operational default of a participant) and the method to be used in identification of default?

Chapter Five titled "Default and Aggrievement Payment" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules clearly stipulates the principles and procedures for:

- default principles in Article 36,
- default interest in Article 37,
- calculation of default interest in Article 38,
- accrual, notification, and collection transactions in Article 39,
- aggrievement payment in Article 41

Participants that do not fulfill their obligations as of the obligation deadline stipulated in the System Rules shall be deemed to have defaulted without the need for any notification.

S.13.1.2: How do the FMI's rules and procedures address the following fundamental matters concerning the default of a participant?

- a) Actions that can be taken by the FMI if default disclosure is made.

Actions to be imposed upon system participants that are deemed to have defaulted for any reason are determined in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement and Risk Management System Rules. In this context, default interest is collected from participants that fulfill their obligations with same-day value but after the determined time and participants that fulfill their obligations not with same-day value but in the following days, by applying different coefficients. In case of default, Takasbank may not permit the participant to withdraw the guarantee mechanism contributions in their relevant accounts, and checks of such participant, which have not been subject to netting as of the default date, may be excluded from netting. The decision in this regard is made by Takasbank in consideration of default size, excess/deficit amounts in accounts, and market conditions.

Takasbank may grant the participant an extension to eliminate the default until at the latest 10:00 AM on the business day following the date of default. If the default is not eliminated by the end of granted period, guarantee mechanism contribution deposited by the defaulting participant is liquidated primarily. If the default amount in question cannot be covered, assets of non-defaulting participants subject to the guarantee mechanism contribution are liquidated and obtained amount is distributed to claimant participants on the date of default in proportion to their claims.

b) The extent, to which actions shall be automated or optional.

İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules clearly specifies which actions shall be optional and which actions shall be automated. Details on the default management process are explained in section 5 titled “Default and Aggrievement Payment Transactions” in the System Rules.

c) Changes in normal settlement practices.

Details concerning the default management process are explained in section 5 titled “Default and Aggrievement Payment Transactions” in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules. In this context, there is no method that can be considered other than normal settlement practices among potential actions.

d) Management of transactions in different stages of the process.

In accordance with article 8 titled “Central Counterparty Default Management Committee (DMC)” of Takasbank Central Counterparty Default Management Implementation Principles Directive, a Default Management Committee is established to serve as decision maker in default management processes on the markets or capital market instruments to which CCP service is provided . It was also stipulated in the same article that the committee would also serve as the decision maker in resolution of defaults arising on markets and platforms that are operated or to which central clearing (CC) service is provided.

Accordingly, Takasbank’s default management process is designed not as a set of rules that must be applied in the same way under all circumstances without considering their effect; but as a process enabling the Default Management Committee to use its discretion in a manner to protect the interests of both the defaulting participant and Takasbank as well as other non-defaulting participants and the markets. The Default Management Committee takes into consideration the reason of default and its effects on the markets when employing the default management tools.

e) Expected manner of addressing shareholder and client transactions and accounts.

The process following the default notice is managed in line with the decisions to be made by the Default Management Committee pursuant to İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules.

f) Potential order of actions.

The process following the default notice is managed in line with the decisions to be made by the Default Management Committee pursuant to İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules.

In this context; action is taken according to the following order of priority in utilization of resources to be implemented in the event of default of system participants:

- Guarantee mechanism contribution of the System participant in default
- Deposited guarantee mechanism contributions of other System participants.

g) Roles, liabilities, and responsibilities of various parties, including non-defaulting participants.

Resolutions on utilization of default management resources to the extent necessary and in the necessary order, including utilization of deposited guarantee fund contributions of non-defaulting participants, shall be taken by the Default Management Committee. Responsibilities of non-defaulting system participants are clearly regulated in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules and participation agreements.

h) Availability of other mechanisms that can be used to contain the impacts of default.

Resources in the guarantee mechanism, established for check clearing transactions, are aimed to comprise liquid assets in order to reduce the impact of default effect on the market. In this context, assets to be accepted as guarantee mechanism contribution in accordance with article 26 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, were identified as follows:

- Cash (in Turkish Lira /Convertible Foreign Currency)
- Government Domestic Debt Securities
- Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company (T.C. Hazine Varlık Kiralama A.Ş.),

In addition, it is clearly specified in article 31 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that Takasbank may borrow as necessary to reduce the impact of the default on the market and to manage the default. In accordance with this article, when the transactions in the System cannot be terminated, if Takasbank can access liquidity opportunities of CBRT or if it can obtain liquidity by borrowing from a financial institution against collateral, assets corresponding to contributions to the guarantee mechanism established by the participants might be provided by Takasbank under the provisions of this paragraph to CBRT or the financial institution that offers credit facilities as collateral to benefit from liquidity opportunities, in compliance with the rules of such institutions on collaterals.



### *Utilization of financial resources*

S.13.1.3: How do the FMI's rules and procedures enable timely (urgent) utilization of any financial resource that is held for the purpose of covering losses arising from default and controlling liquidity pressure, including the FMI's means of liquidity?

Resources in the guarantee mechanism, established for check clearing transactions, are aimed to comprise liquid assets in order to reduce the impact of default effect on the market. In this context, assets to be accepted as guarantee mechanism contribution in accordance with article 26 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, were identified as follows:

- Cash (in Turkish Lira /Convertible Foreign Currency)
- Government Domestic Debt Securities
- Lease certificates issued by the Republic of Turkey Undersecretariat of Treasury, Asset Leasing Company (T.C. Hazine Varlık Kiralama A.Ş.),

In addition, it is clearly specified in article 31 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that Takasbank may borrow as necessary to reduce the impact of the default on the market and to manage the default. In accordance with this article, when the transactions in the system cannot be terminated, if Takasbank can access liquidity opportunities of CBRT or if it can obtain liquidity by borrowing from a financial institution against collateral, assets corresponding to contributions to the guarantee mechanism established by the participants might be provided by Takasbank under the provisions of this paragraph to CBRT or the financial institution that offers credit facilities as collateral to benefit from liquidity opportunities, in compliance with the rules of such institutions on collaterals.

S.13.1.4: How do the FMI's rules and procedures address the order in which financial resources can be used?

Pursuant to İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, the following order of priority is observed in employing resources to be utilized in the event of default of system participants:

- Guarantee mechanism contribution of the system participant in default
- Deposited guarantee mechanism contributions of other system participants.

In addition, it is clearly specified in article 31 of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that Takasbank may borrow as necessary to reduce the impact of the default on the market and to manage the default. In accordance with this article, when the transactions in the system cannot be terminated, if Takasbank can access liquidity opportunities of CBRT or if it can obtain liquidity by borrowing from a financial institution against collateral, assets corresponding to contributions to the guarantee mechanism established by the participants might be provided by Takasbank under the provisions of this paragraph to CBRT or the financial institution that offers credit facilities as collateral to benefit from liquidity opportunities, in compliance with the rules of such institutions on collaterals.

S.13.1.5: How do the FMI’s rules and procedures address substitution of financial resources used after a default?

In accordance with article 29 titled “Guarantee mechanism contribution margin call” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management Rules, Takasbank monitors the adequacy level of assets, deposited against guarantee mechanism contribution, at least daily. If such assets drop below the contribution amount determined by Takasbank due to the increase of guarantee mechanism contribution of the participant, changes in valued guarantee mechanism contribution amount, or other reasons; Takasbank makes a guarantee mechanism contribution margin call at the end of every business day. Participants should fulfill their guarantee mechanism margin call obligations at the latest by 11:00 AM on the next business day. Default provisions shall be applicable to obligations that cannot be fulfilled in the mentioned period.

**Core Principle 2: The FMI should be prepared to implement default rules and procedures, including suitable voluntary procedures specified in the rules.**

S.13.2.1: Does the FMI management have internal plans where roles and responsibilities in respect of a default event are described clearly? What are such plans?

The rules and procedures applicable to defaulting and non-defaulting participants in default management are stipulated in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, and the rights and powers of Takasbank and the responsibilities of the participants in case of events of default have also been incorporated into the agreements signed with the participants; thus, the legal risks that might arise have been minimized.

In addition, a Default Management Committee is established to serve as decision maker in default management processes. Default Management Committee determines and is responsible for measures to be taken and assignments to be made throughout the process.

S.13.2.2: What kind of communication procedures does the FMI have to reach all stakeholders, including regulatory, audit, and oversight authorities, in a timely manner?

In accordance with article 18 titled “Obligation to notify the bank” of the Regulation on Operations of Payment and Securities Settlement Systems, the system operator is obliged to notify the CBRT promptly about matters that disrupt or interrupt ordinary operation of the system or prevent the system from shutting down. In this context, with the exception of pre-default circumstances, which are concluded by Takasbank Default Management Committee not to have been caused by any permanent vulnerability in the power of the participant to fulfill its commitments, if it is estimated that the participant shall be unable to fulfill its liabilities to Takasbank and it is decided to exercise the rules in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules about the participant, the situation is promptly notified to the CBRT.

S.13.2.3: How often are internal plans on default reviewed? What are the management regulations concerning the mentioned plans?

It is stipulated that at Takasbank, the CCP Department shall conduct the secretariat services of the Takasbank Default Management Committee and to prepare and submit to the Committee any and all types of technical analyses that will constitute the basis for the decisions to be taken by the Committee. The Collateral and Default Management Team reporting to the CCP Department is responsible to continuously monitor the progress of the default management resources and the risk/collateral balances and to review the collateral management process.

**Core Principle 3: The FMI should disclose core principles for default rules and procedures to the public.**

S.13.3.1: How does the FMI disclose core principles for participant default rules and procedures to the public? How do such core principles address the following matters?

Details concerning the default management process are explained in section 5 titled “Default and Aggrievement Payment Transactions” in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules. This document is available on Takasbank website.

- a) Circumstances where action can be taken,
- b) Whom such actions are to be taken by,
- c) The scope of actions that may be taken, including positions of shareholder and clients, how their funds and assets shall be evaluated,
- d) Mechanisms involving liabilities of the FMI to its non-defaulting participants,
- e) Mechanisms that assist in fulfillment of the liabilities of a defaulting participant to their clients under circumstances where participants have direct relationships with their clients.

Abovementioned matters are given in detail in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules.

**Core Principle 4: The FMI should ensure participation of its participants and other stakeholders in testing and review studies for default procedures, including liquidation procedures. Such testing and review procedures should be performed at least once a year or following a material change in rules and procedures to ensure applicability and effectiveness of such change.**

S.13.4.1: How does the FMI contact its participants and other related stakeholders in testing and review studies for participant default procedures? How often are such tests and reviews conducted? How are test outcomes used? To what extent are such outcomes shared with the board of directors, risk committee, and relevant authorities?

Applicability of default management processes is tested once a year with the default management simulation established by Takasbank Default Management Committee and performed with the participation of market participants. Default management simulations may either be on a market

basis or involve single or multiple defaults to be experienced in multiple markets. Default management simulation scenarios are established by Takasbank.

S.13.4.2: Which potential participant default scenarios and procedures do such tests cover? To what extent does the FMI test the implementation of resolution regime concerning its participants?

Default management testing is conducted once a year in order to test the executability of default management processes and to ensure their best level management for check clearing transactions. Default Management Committee determines the actions to be taken in the process and it is aimed to resolve the default pursuant to resources and rules determined in the legislation. Test results and the measures proposed to be taken, if any, are submitted also to the Board of Directors.

***Takasbank Assessment Result for CPMI-IOSCO Principle 13***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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## **Principle 15: General Business Risk**

The FMI should define, monitor, and manage general business risk. In this context, the FMI should have net liquid assets at a level to cover potential general business losses and financed with equities in order to ensure that it can serve continuously and maintain its operations. In addition, net liquid assets should always be at a level to ensure recovery and orderly wind down of critical services and activities.

**Core Principle 1. The FMI should have a solid management and control system to define, monitor, and manage general operational risks, including poor management of business strategies, negative cash flows, and large scale unexpected operating expenses.**

S.15.1.1: How does the FMI define general operation/business risks? Which general operation/business risks does the FMI define?

General business risk means the potential deterioration that might occur in financial conditions of the Bank as a result of expenses that exceed revenues and covering the loss with equities due to decrease in revenues or increase in expenses.

In accordance with the banking legislation, Takasbank's risks, arising from all of its activities, are within the scope of credit risk, market risk, and operational risk. Therefore, abovementioned general business risk is defined under banking risks.

S.15.1.2: How does the FMI regularly monitor and manage general operational risks? Does the FMI's risk assessment consider potential impacts of general operational risks on the FMI's cash flow and capital (in case of a privately operated FMI)?

Takasbank has to manage risks that it is exposed to pursuant to all of its operations in accordance with the capital adequacy regulations stipulated in Banking legislation. Under the supervision of the BRSA, Takasbank keeps its capital adequacy ratio, which represents the ratio to equity of the total amount subject to the Bank's credit risk, market risk, and operational risk above 12%. In this context, Bank complies with legal capital adequacy ratios in a manner that prevents its equity from reducing as a result of an income-expense imbalance due to any of its operations; and the Bank conducts its activities so that its equity can always cover the risks it is exposed to.

Takasbank budgets its income and expenses by also taking account of the trading volume forecasts of Borsa İstanbul to which it offers the CCP service and operations are continued with profitability to provide higher capital yield than inflation and risk-free interest rate to shareholders every year. The income and expense realizations and the deviations from the budget are rigorously evaluated in the monthly Asset & Liability Committee (ALCO) meetings; and the necessary actions are taken to not fall below the income targets or exceed the expense targets. In addition, in the aforementioned meetings held on a monthly basis, necessary assessments are made with respect to the occurrence of operational loss, which is the risk that the operating income derived from all services offered by Takasbank except for clearing & settlement and CCP activities may not cover the operating expenses, and necessary actions are taken, considering all budget deviations related

with all services. However, given Bank's strong capital structure and the continuity of the high return on equity achieved, the general business risk is deemed to be quite low.

**Core Principle 2: The FMI should have net liquid assets financed with its equities to maintain its activities and services in case it incurs general business losses. The amount of net liquid assets to be kept by the FMI, should be determined depending on the FMI's general risk profile and the length of time to elapse during recovery or orderly wind-down of its critical operations and services.**

S.15.2.1: Does the FMI keep net liquid assets financed with its equities to maintain its activities and services in case it incurs general business losses?

Takasbank holds some of its equity as liquid net assets so that it can continue all of its activities without a problem if it incurs general business losses.

S.15.2.2: How does the FMI calculate the amount of net liquid assets financed with equities to be kept to cover general business risks? How does the FMI determine the necessary duration and operational costs for recovery or orderly wind down of critical activities and services?

Net liquid asset definition of Takasbank comprises total securities in possession and net cash inflow total. The amount of securities, remaining after subtracting securities subject to repo and securities blocked for any reason from the total securities that are owned, is included in total net liquid assets. Net cash inflow total, which is the other component, is the positive difference occurring between cash inflows and outflows with same day value, and it is included in total net liquid assets.

**Core Principle 3: The FMI should have an applicable recovery and orderly wind-down plan and keep sufficient net liquid assets to implement this plan. The FMI should have sufficient net liquid assets to cover at least 6 months of operational expenses. These assets should be kept in addition to the assets that should be kept for the risk of failure of participants to fulfill their obligations or other risks in principles concerning financial resources. However, in order to prevent keeping duplicate capital, resources kept within the scope of international risk-based capital standards may be used in this scope as appropriate.**

*Recovery or orderly wind down plans*

S.15.3.1: Did the FMI develop recovery or orderly wind down plans for implementation when appropriate? If such a plan is available, what does the plan take into consideration (such as operational, technological, or legal requirements for the participants to establish alternate structures or transition to such structures)?

Pursuant to subparagraph (1) of the first paragraph of article 11 entitled "Operating Principles of the System Operator" as specified in the Regulation on Operations of Payment and Securities Settlement Systems, Takasbank Recovery Plan is prepared and approved by the Board of Directors. In addition, Takasbank Orderly Wind-Down Plan has been prepared in relation to the orderly wind-down of activities and approved by the Board of Directors.

It was explained in detail in Takasbank Orderly Wind-Down Plan how the structure operated under the Check Clearing System would be transferred to another institution in the event of realization of addressed scenarios. In this context, in order to prevent system participants from being impacted negatively, actions to be taken before transfer and steps to be followed in respect of clearing, collateral, and settlement transactions were documented in the mentioned plan.

#### *Resources*

S.15.3.2: How much net liquid asset, financed with equities, does the FMI keep to implement these plans? How does the FMI decide that such amount will be sufficient to implement the plan? Is such amount equal to at least 6 months of operating expenses of the FMI?

Takasbank does not allocate and commit from its capital for check clearing services as it is not a CCP and it serves as a System Operator.

S.15.3.3: How are the resources allocated to cover general business risk and losses separated from resources allocated for other risk factors such as failure of participants to fulfill their obligations?

Takasbank does not allocate and commit from its capital for check clearing services as it is not a CCP and it serves as a System Operator.

S.15.3.4: Does the FMI include the resources allocated for international risk-based capital requirements to resources allocated for general business risks?

Takasbank does not allocate and commit from its capital for check clearing services as it is not a CCP and it serves as a System Operator.

**Core Principle 4: Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to maintain its operations even under different scenarios such as adverse market conditions.**

S.15.4.1: Which assets do the FMI's net liquid assets, financed with equities, comprise? How will the FMI be able to liquidate these resources at minimum or no loss under adverse market conditions?

Takasbank does not allocate and commit from its capital for check clearing services as it is not a CCP and it serves as a System Operator.

S.15.4.2: How does the FMI systematically assess the quality and liquidity of its net liquid assets financed with equities within the scope of different scenarios involving adverse market conditions as well?

Takasbank does not allocate and commit from its capital for check clearing services as it is not a CCP and it serves as a System Operator.

**Core Principle 5: The FMI should have a feasible plan to procure additional equity if its equities approach or drop below the required amount. This plan should be approved and regularly updated by the board of directors.**

S.15.5.1: Did the FMI establish a plan to create additional equity? What are the fundamental characteristics of the plan to create additional equity if the FMI's equities drop to the minimum required amount or below such amount?

In addition to those indicated in 15.3.1, in capital planning, Takasbank acts in accordance with Takasbank Internal Capital Adequacy Assessment Process Directive and Takasbank Recovery Plan approved by the Board of Directors. Capital increase is considered as one of the actions to be resorted to when required; and although it is envisaged that the capital support that will be needed can easily be provided due to its shareholding structure; Takasbank tries to minimize the likelihood of encountering any capital increase requirement under difficult conditions by establishing the capital it may need under stressed conditions under normal conditions. The General Assembly (shareholders) is authorized to take the capital increase decision when necessary and Takasbank Board of Directors is entitled to call the General Assembly for an extraordinary meeting.

S.15.5.2: How often is the plan, to be used for creation of additional equity, reviewed and updated?

Takasbank Recovery Plan is reviewed at least once a year with the participation of all relevant units. The reviewing process is coordinated by the Risk Management Unit. In case of any change in the systems or services having a material impact on the Plan, the relevant service owner applies to the Risk Management Unit for a review of this Plan. Takasbank Orderly Wind-Down Plan is simultaneously reviewed with Takasbank Recovery Plan.

During the review process, the Bank's risk profile, new products and services and the results of the ICAAP activities are taken into account and the appropriateness of the actions specified in the Plan evaluated.

S.15.5.3: What does the role of the FMI's board of directors (or equivalent structures) comprise in the review and approval stages for the plan on creating additional equity?

Takasbank Recovery Plan and Takasbank Orderly Wind-Down Plan are implemented following approval by the Board of Directors upon review, and the prepared plan is submitted to the CBRT.

The General Assembly (shareholders) is authorized to take the capital increase decision when necessary and Takasbank Board of Directors is entitled to call the General Assembly for an extraordinary meeting.

***Takasbank Assessment Result for CPMI-IOSCO Principle 15***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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## **Principle 16: Custody and Investment Risk**

An FMI should safeguard its own and its participants' assets and minimize the risk of loss concerning and delay in access to these assets. FMIs should invest in instruments with minimal credit, market, and liquidity risks.

**Core Principle 1: The FMI should keep its own assets and the assets of its participants in organizations subject to supervision and regulation, with solid accounting practices that fully protect such assets, custody procedures, and internal control mechanisms.**

S.16.1.1: In case the FMI utilizes a depository institution, how is this depository institution selected? In selection of depository institutions, what do the specific selection criteria, including matters such as supervision and regulation of institutions, involve? How does the FMI monitor compliance of the depository institution with these criteria?

No depository institution is used within the scope of check clearing transactions.

S.16.1.2: How does the FMI confirm that these institutions have solid accounting practices that fully protect its own assets and the assets of its participants, secure custody procedures, and internal controls?

No depository institution is used within the scope of check clearing transactions.

**Core Principle 2: The FMI should have the opportunity to quickly access its own assets and the assets provided by its participants, as necessary.**

S.16.2.1: How did the FMI ensure that it had a solid legal basis supporting exercise of its rights concerning assets kept by the depository institution or its ownership rights?

No depository institution is used within the scope of check clearing transactions.

S.16.2.2: How does the FMI guarantee that it shall quickly access assets, including securities kept in a depository institution in another time zone or jurisdiction, in case its participant defaults?

No depository institution is used within the scope of check clearing transactions.

**Core Principle 3: The FMI should evaluate and understand its risks arising from custodian banks in consideration of the entirety of its relationships with each one.**

S.16.3.1: How does the FMI evaluate and understand the risks arising from custodian banks? How does the FMI consider the entirety of its relationships with each custodian bank as it manages these risks? For example: Does the FMI use multiple custodians to store its assets safely in order to diversify its risk arising from a single custodian? How does the FMI monitor the concentration of risks arising from custodian banks?

No depository institution is used within the scope of check clearing transactions.

**Core Principle 4: The FMI's investment strategy should be aligned with the general risk management strategy, disclosed fully to the participants, and such investments should be**

**committed by high quality obligors. It should be possible to liquidate these investments quickly upon a slight reverse price effect (if any).**

*Investment strategy*

S.16.4.1: How does the FMI ensure that its investment strategy is compatible with its general risk management strategy? How and to whom does the FMI disclose its investment strategy?

The Bank's fund management strategy is established in line with the purposes of avoiding any liquidity issue, ensuring optimization in risk-yield balance, assuming reasonable risk, and evaluating resources with the highest yield rates. In accordance with the implemented fund management strategy, treasury transactions are performed with banks, to which limits are allocated by the Board of Directors. Government Domestic Debt Instruments issued by the Republic of Turkey Ministry of Treasury and Finance, debt instruments and lease certificates issued by banks incorporated in Türkiye, debt instruments issued by Turkish Wealth Fund (TWF) and companies that are fully owned by TWF, lease certificates originating from Turkish Wealth Fund and companies that are fully owned by TWF, Asset-Backed Securities (ABS) originating from banks established in Turkey and TRY debt instruments issued abroad by supranational institutions established abroad are included in the Bank's securities portfolio. Derivative products may be used for the bank portfolio for the purposes of protection and liquidity management. In addition, derivative products may be used for risk mitigating transactions concerning positions assumed as a result of CCP services.

Main principles of the Bank's fund management strategy;

- a) To ensure continuity of primary activities and financial strength of the Bank.
- b) To obtain maximum yield that can be obtained with minimum risk within the framework established in the legislation under the market conditions.
- c) To ensure that the funds belonging to the Bank and the Bank's clients are evaluated with best efforts, in maturities and markets that align with their purposes and the interests of owners.
- ç) To observe compliance with transparency and accountability principles.

The investment strategy is approved by the Board of Directors and in case of a change, it is submitted to the Board of Directors for revision.

GDDSs, belonging to closed intermediaries (accounts opened due to attachment and precautionary injunction decisions with intermediaries that are bankrupt or operations of which are temporarily or permanently suspended by the CMB) followed in accounts and positions subject to trading activities, were removed from on-balance sheet accounts on 29.09.2017 and such GDDSs are followed in off-balance sheet accounts. Internal market value-at-risk of the Bank is calculated with changes concerning net position of assets and liabilities exposed to currency risk. If necessary to protect against risks, there is no legal barrier preventing derivative financial instruments from being included in the portfolio. The Bank may be exposed to market risk due to the GDDSs and derivative financial instruments added/likely to be added to the portfolio. There are also interest rate and currency risk limits and signal values, determined by the Board of Directors as the ratio of the value at risk, which may be incurred by the portfolio, to the current value of the portfolio, and monitored by the Risk Management Unit on a daily basis. Accordingly, if such limits and signal levels are

exceeded, the Senior Management can take the actions such as changing the liquidity and funding strategy and creating a portfolio comprising instruments with less risks pursuant to the eleventh paragraph of article 8 of Takasbank ICAAP Directive.

S.16.4.2: How does the FMI constantly guarantee that safety of its investments are ensured by high quality obligors?

Requirements of markets, to which services are provided, for structure and utilization of FX amounts (USD, EUR) deposited to Takasbank one business day in advance concerning collateral, guarantee fund, or Borsa İstanbul Swap Market FX liabilities, are taken into consideration in determination of investment terms.

Transaction collateral and guarantee fund amounts are directed to investment in the CBRT, Repo - Reverse Repo Market under Borsa İstanbul Debt Instruments Market, Borsa Istanbul Money Market, and large-scale banks to minimize credit risk pursuant to the best effort performance criterion

#### *Risk characteristic of investments*

S.16.4.3: How does the FMI consider its total risk arising from an obligor in selection of its investments? Which investments are subject to restrictions to avoid credit risk concentration?

It is essential that fund management activities are carried out within legal limits and are realized considering the Bank's risk appetite, risk limits and signal values. The restrictions related with the investment of financial instruments and resources that will be used in the implementation of the fund management strategy are specified in Takasbank Fund Management Strategies Directive.

- (1) Cash amounts other than transaction collaterals, guarantee funds, and other funds are directed to investment in the CBRT, BİAŞ Debt Instruments Market, BİAŞ Money Market,, BİAŞ Swap Market, and banks incorporated in Türkiye.
- (2) Government Domestic Debt Instruments issued by the Republic of Turkey Ministry of Treasury and Finance, and debt instruments and lease certificates issued by banks incorporated in Türkiye, are included in the Bank's securities portfolio.
- (3) Derivative products may be used for the bank portfolio for the purposes of protection and liquidity management. In addition, derivative products may be used for risk mitigating transactions concerning positions assumed as a result of CCP services.
- (4) Maximum maturity of placements in instruments other than government bonds, with the exception of swap transactions, is 6 months.
- (5) Investment is made in the investment funds, which must be bought pursuant to the legislation, limited to the obligation.
- (6) Attention is paid to asset-liability equality on the basis of maturity, currency, and amount in the balance sheet asset-liability structure.

- (7) Maturity distribution and amount size is taken into account in the investment decision to limit the volatility that the placement amount may create on cash flows of banks to be invested in.
- (8) Maximum term of securities, to be kept until maturity, is 5 years and maturity of assets, to be included in the trading portfolio, is maximum 10 years.
- (9) Only highly liquid instruments are included in the securities portfolio.
- (10) The upper limit of the open FX position, occurring due to transactions made in FX markets for profit, is limited to the FX net general position.
- (11) It is essential that fund management activities are carried out within legal limits and are realized considering the Bank risk appetite, risk limit, and signal values.
- (12) The Risk Management Unit is informed to ensure that necessary studies can be performed in the internal capital assessment process about changes that are estimated to be made in the fund management strategy (including new instruments in the portfolio or updating maximum rate, etc.) and the impact of strategic changes on other legal ratios, particularly internal and legal capital adequacy ratios, can be analyzed.

S.16.4.4: Does the FMI invest assets of a participant in securities of the same participant or subsidiary of the same participants?

Participant assets are not invested in the securities of the participant or its affiliates. The limits related with investing of participant assets are specified in Bank’s directive on fund management strategies.

S.16.4.5: How does the FMI ensure that investments can be liquidated quickly upon a slight reverse price effect (if any)?

If liquid assets under the guarantee mechanism, established for Check Clearing transactions, are exposed to reverse price effect, if Takasbank can access liquidity opportunities of the CBRT or provide liquidity by borrowing against collateral from a financial institution instead of liquidation bu means of asset sale, liquidity management is ensured by transfer of assets against guarantee mechanism contribution, established by the participants, as collateral.

***Takasbank Assessment Result for CPMI-IOSCO Principle 16***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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### **Principle 17: Operational Risk**

An FMI should identify potential internal and external sources of operational risk and mitigate the effects of these by implementing suitable 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 recovery of FMI's operations and fulfillment of FMI's obligations in time, including in the event of wide-scale or major disruption.

**Core Principle 1: The FMI should establish a solid operational risk management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.**

#### *Identification of operational risks*

S.17.1.1: What are the FMI's policies and processes to identify potential sources of operational risk? How do the FMI's processes identify potential sources of operational risk, arising due to internal factors, FMI's participants, or external factors?

Operational risk means the probability of loss resulting from inadequate or failed internal processes, people and systems or from external events, which also includes legal risk. Legal risk means the risk of expenses/loses arising from the disputes resolved at court or through mutual settlement (arbitrator/arbitration, negotiations on credits/receivables, etc.) due to violation of laws or rules or the Bank's voluntary actions (payment refunds without a complaint filed or discounts in future services to be rendered to customers, etc.) or the probability of loss that the Bank might be exposed to as a result of the misinterpretation or incomplete knowledge of the regulations, unforeseeable amendments in the laws or regulations, and unenforceability of contracts due to legal barriers. These definitions are provided in Takasbank Operational Risk Management Procedure approved by the Board of Directors.

When the legal risk, the risks arising from information technologies and the risks related with important stakeholders and affiliates that might have an impact on the Bank's operations and reputation are digitized, they are categorized under operational risk management. The business continuity risks that might disrupt the Bank services are also addressed within the framework of operational risk management.

The maintenance of the Bank's activities in a manner that ensures that legal and internal capital limits are not exceeded and remain below the operational risk appetite determined by the Board of Directors pursuant to Takasbank Operational Risk Management Procedure constitutes the Bank's operational risk policy.

In operational risk management, the approach of three lines of defence is run, comprising business line management, central risk management function, and independent review process. Accordingly;

- In business line management, the risks arising from the products and services offered by each unit of the Bank, and the processes, human resources and systems used are identified; the service and subservice-based risks and controls are defined and the Senior Management is informed, ensuring that appropriate actions are taken.
- The central risk management function is ensured by establishing risk and control systems within the Bank, segregating the roles and responsibilities, and having the processes and functions reviewed by Risk Management Unit and the Internal Control Unit, other than the operational units that execute them.
- The independent review process is comprised of the assessment of the risk management, legislation and compliance, and internal control framework from all aspects, and this function is executed by the Internal Audit Unit.

S.17.1.2: What do the operational risk sources identified by the FMI comprise? What are the single points of failure identified by the FMI within its operations?

Operational risk means the probability of loss resulting from inadequate or failed internal processes, people and systems or from external events, which also includes legal risk. When the legal risk, the risks arising from information technologies and the risks related with important stakeholders and affiliates that might have an impact on the Bank's operations and reputation are categorized under operational risk. The business continuity risks that might disrupt the Bank services are also addressed within the framework of operational risk management.

All critical systems including network infrastructure as Takasbank have been established with a redundant structure. Therefore, there is no isolated points of deficiencies identified.

#### *Management of operational risks*

S.17.1.3: How does the FMI monitor and manage identified operational risks? Where are such systems, policies, procedures, and controls documented?

The principles and procedures regarding the Bank's reputation risk and the functioning of its operational and strategic risk management systems are set forth in Takasbank Operational Risk Management Procedure approved by the Board of Directors. It is reviewed by the Board of Directors at least once a year.

Operational risk is measured by the Risk Management Unit on an annual basis with the methods specified in the Regulation on the Measurement and Assessment of Banks' Capital Adequacy and sub regulations.

Operational risk stress tests and scenario analyses are implemented in accordance with the policies and implementing procedures defined within the framework of the principle of proportionality as provided in Takasbank Procedure on Stress Testing Program Policy and Implementation Procedures; and the results are taken into account within the scope of ICAAP.

The risks defined by every Unit of the Bank on a service and sub-service basis are monitored through the Operational Risk Database. In the Operational Risk Database that is updated at least

once a year, subprocess risks and controls established in relation to such risks can be defined in an open platform that is accessible to the Bank personnel at all times by service owners and/or risk and control supervisors, after holding mutual meetings with all units under the coordination of the Risk Management Unit and Internal Control Unit, based on the Bank's Service Catalogue; and the records related to the said database also provide inputs for the activities related with the Governance Statement document. The actions recommended for the risks with net risk level equal to or above the operational risk appetite and key risk indicators are monitored by the Internal Control Unit, and these risks are reported by the Risk Management Unit to the Senior Management and it is ensured that necessary actions are taken.

The operational risk limit and signal values determined by the Board of Directors and characterized as the early warning system as well as the level of compliance with operational risk appetite are monitored by the Risk Management Review on a monthly basis. The signal value breaches are reported by the Risk Management Unit to the Audit Committee, Senior Management and the managers of the units executing the relevant process in the business line management via e-mail. The Risk Management Unit promptly issues a written notification to the Audit Committee for further notification to the Senior Management and the Board of Directors in order to ensure that necessary actions are taken in case of any breach in the allocated risk limit and risk appetite.

Information Systems (IS) risk management process; is determined risks by identifying threats and weaknesses related to Takasbank information assets in relation to information technology activities, determining the likelihood of exposure of information assets to risk according to detected threats and weaknesses. The effects on the criteria such as confidentiality, integrity and accessibility of the associated information assets should be determined in the event of risks. Moreover, process is continued for calculation the impact of the relevant information asset and making a risk rating according to the specified probability and impact values of the risks that threaten the information assets. Then it is decided how the risks determined within the framework of these risk analysis results will be processed and to carry out risk assessments consisting of actions such as proposing actions to reduce risks. Eventually, it refers to the process by which the stages of creating, implementing and monitoring and reporting the results applied are repeated continuously within the specified periods and in a continuous life cycle, consisting of the stages of prioritizing risks and selecting appropriate control methods.

Takasbank enterprise risk management process also covers the Bank's IT risks. Considering that IT risks may be a factor of other risks arising from banking activities, an integrated risk management methodology is applied throughout the Bank, including the risks arising from information systems. Both IT risks and other risks are kept and monitored on Takasbank Operational Risk Database.

An effective IS risk detection mechanism, fed from different channels, has been established in order to detect IS-related risks in the Bank. IT Weekly Meetings, Information Systems Strategy and Steering Committee, Information Security Committee and IT Architecture Committee meetings provide input for both IS risks posed by developing new technologies, and risks related to projects. In addition, it ensures that the risks that may arise from new projects (such as legal

risks that may be encountered in case of delay of the project, new risks that may be exposed in case of commissioning of the project) are recorded in the detailed meetings held specifically for the projects. Risks related to significant changes are evaluated at the Change Advisory Committee meetings.

Audit and vulnerability scan results, penetration tests, routine security checks, problem and interruption records created during the period are taken into account in periodic risk analysis studies carried out at least once a year within the scope of compliance with service level agreements. Capacity planning, satisfaction measurement results and complaint notifications, if made during the period, can also be used as inputs in the analysis of IS risks.

The analysis of IS risks is repeated at least once a year or before significant changes in information systems. In addition, risk records obtained individually during the year are analyzed periodically and added to the Operational Risk Database, without waiting for a routine review time. At least once a year, a summary risk assessment report representing the whole of the IS risk analysis is prepared and combined with the current risk action plan to form the IS Risk Inventory. IS Risk Inventory is reported to the Senior Management at least once a year.

In respect of information technologies (IT) The development of indicators like business interruptions, compliance of companies that receive support services with contract provisions, etc. are monitored on a semi-annual basis and reported to the Senior Management annually.

#### *Policies, processes, and controls*

S.17.1.4: What do the policies, processes, and controls, used by the FMI to ensure proper implementation of operational procedures, comprise? To what extent do the FMI's systems, policies, processes, and controls consider national, international, and sectoral standards concerning operational risk management?

The maintenance of the Bank's activities, in a manner that ensures that legal and internal capital limits are not exceeded and remain below the operational risk appetite determined by the Board of Directors, constitutes the Bank's operational risk policy.

In the operational risk management, the principle of proportionality is taken into account pursuant to the BRSA regulations and best practices guidelines. Within the framework of the principle of proportionality, the issues such as the Bank's size, risk profile, risk appetite as well as the volume, nature, and complexity of its operations, tasks and transactions and similar issues are taken into consideration. On the other hand, impact levels of risks concerning information technologies as defined in the Operational Risk Database are measured on the basis of confidentiality, integrity, accessibility/continuity criteria.

In respect of risks that are equal to or higher than the Bank's operational risk appetite, which cannot be controlled and mitigated, matters concerning whether the Bank shall accept risks, whether the level of activity in the relevant business line shall be reduced, or whether activity shall be completely terminated, shall be evaluated by the Senior Management and submitted to the Board of Directors for approval.



Provisions specified in Takasbank Internal Control Regulation is taken into account in establishing necessary controls for operational risk; whereas the provisions specified in Takasbank Directive on Prevention of Money Laundering and Terrorist Financing are taken into account in all practices aimed at prevention of money laundering and the financing of terrorism.

The practices related to external and support services, business continuity and all services procured from service providers are governed by the provisions of all intra-Bank regulations, including, in particular, Takasbank Support Services and External Services Procurement Procedure, Business Continuity Directive, Business Continuity Procedure, and Service Provider Relations Management Procedure, respectively.

The operational risks that the Bank is exposed to are mitigated and/or transferred through the following actions:

- a) Usage of insurance,
- b) Procurement of services from suppliers and /or support service companies,
- c) Determination and monitoring of risk appetite, limits and signal values,
- ç) Activities conducted to ensure business continuity,
- d) Establishment of controls and the existence of audit mechanisms.

S.17.1.5: What do the FMI's human resources policies on recruitment, training, retaining qualified personnel comprise and how do these policies reduce the impacts of high personnel turnover rate or critical personnel risk? How do the FMI's human resources and risk management policies consider the matter of preventing irregularities?

Takasbank Human Resources Directive, Takasbank Career Management Procedure and Takasbank Personnel Leave Procedure contain the details on issues such as human resources policy, human resources practices, recruitment and placement, compensation management, leave practices, social rights and benefits and work life, performance management and career management and training. Appointment of senior-level managers is conducted in accordance with the provisions of the CBRT, CMB and BRSA regulations. Human resources policies are established by implementing training and orientation programs. These processes are carried out over the ERP (Enterprise Resource Management) application.

The issues related with rewarding, motivation, training, rotation, succession, job descriptions and control points are also specified within the intra-Bank directives and procedures.

Matters on reporting irregularities are specified in Takasbank Intra-Bank Irregularity-Problem and Suspicious Issues Reporting Procedure and Takasbank Gifting Procedure.

S.17.1.6: How do the FMI's change and project management policies and processes reduce the risk of inadvertent impact of changes and major projects on smooth operation of the system?

Change management and project management operations are conducted in accordance with pre-defined procedures. The risk management process that is an important subprocess of project management is also carried out according to the rules defined in the procedures; and project-based risks are assessed by the relevant teams and necessary measures are taken under the responsibility of the project manager. Changes are also made according to the procedure after all changes are recorded and saved through a portal, necessary approvals are obtained, and relevant parties are informed thereof.

For both processes, integrated tests are conducted in order to observe the effects of the changes to be made on the current system; and tests are also organized with the participation of market stakeholders where necessary. Practices are put into application after the tests yield positive results.

Related procedures:

- Project Management Procedure
- Operational Change Management Procedure

**Core Principle 2: The FMI's Board of Directors should clearly define roles and responsibilities in terms of operational risk and approve the operational risk management framework of the FMI. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested regularly and after major changes.**

*Roles, responsibilities, and framework*

S.17.2.1: How does the Board of Directors define essential roles and responsibilities concerning operational risk management?

Pursuant to Takasbank Operational Risk Management Procedure approved by Bank's Board of Directors, core roles and responsibilities have been defined employing the approach of three lines of defence. The approach of three lines of defence is comprised of business line management, central operational risk management function, and independent review process.

- a) In the first stage, the relevant unit is responsible for defining the process- and subprocess-based risks and controls emerging during the execution of operations,
- b) In the second stage, the Risk Management Unit and the Internal Control Unit are responsible for establishing the risk and control systems within the Bank,
- c) In the third stage, the Internal Audit is responsible for the independent review of the entire operational risk management system, the internal control and the legislation and compliance system.

It is essential that all Bank personnel actively take part in operational risk management in accordance with their tasks and responsibilities, as an integral part of their daily activities.

Service owners define risk and control supervisors for each unit, considering the Bank's organization chart. Risk and control supervisors are in charge of informing the Risk Management Unit about the risks arising from Unit operations carried out to support the works related with the

Operational Risk Database and Operational Risk Loss Database, the developments in the risk and control levels, the losses incurred, and the situations that cause a disruption in the business continuity and entering the risks that the Bank is exposed to due to unit operations into the Operational Risk Database. In addition, the Bank employees are also liable to provide the necessary assistance for the risk and control supervisors during this process.

The Internal Audit Unit and the Internal Control Unit report to the Risk Management Unit the risks and losses they have found to be absent in their database as a result of the audit and control operations they carry out.

The Internal Control Unit is responsible for monitoring the risk-mitigating and/or risk-preventing actions recommended for the risks with net risk level equal to or above the operational risk appetite and the key risk indicators.

Other roles and responsibilities are specified in detail in Takasbank Operational Risk Management Procedure.

S.17.2.2: Does the FMI's board of directors clearly review and approve the FMI's operational risk management framework? How often does the board of directors review and approve the FMI's operational risk management framework?

The Operational Risk Database results that are updated by all units of the Bank and consolidated by the Risk Management Unit are presented to Bank's Board of Directors on an annual basis. In addition, Takasbank Operational Risk Management Procedure, involving the operational risk management framework, is reviewed and approved at least annually by the Board of Directors. The operational risk appetite and operational risk limit and signal values are reviewed at least once a year.

#### *Review, audit, and testing*

S.17.2.3: How does the FMI review, audit, and test its systems, policies, procedures, and controls, including the operational risk management regulations with its participants? How often does the FMI conduct such review, audit, and test studies with its participants?

It is compulsory to ensure the adaptation of operational risk management policies and implementing procedures to the changing conditions. The Audit Committee regularly reviews the adequacy of such polities and implementing procedures and in this context, the Operational Risk Management Procedure is reviewed once a year.

The operational risk management framework and the methodologies, methods and models used are reviewed according to the changes in the risk profile and risk appetite of the Bank and the dynamics of the new products and services, processes, systems and external factors.

The operational risk appetite of the Bank is reviewed at least once a year. Operational risk limit and signal value are reviewed according to the changes in market conditions and the Bank's strategy.

Operational Risk Database can be reviewed and updated at any time but, in any case, at least once a year by units that execute operations. The Internal Audit Unit and the Internal Control Unit report to the Risk Management Unit the risks and losses they have found to be absent in their database as a result of the audit and control operations they carry out, and necessary updates in this scope are made by risk and control supervisors.

In the annual Service Satisfaction Survey of our Bank, the participants were inquired whether the rules, contracts and all procedures regarding the service received were clear and understandable enough, and no negative response was received.

S.17.2.4: Where appropriate, to what extent is the operational risk management framework of the FMI subject to external audit?

Under the BRSA legislation, the independent audit company audits the banking processes on an annual basis and the information systems on a biannual basis. The CMB information systems are subject to audit by the independent audit company on an annual basis under the relevant legislation. CBRT Information Systems legislation and self-assessment processes are also followed. In addition, external audits are also conducted within the scope of our ISO 22301, ISO 20000-1, and ISO 27001 certificates. The Bank is also subject to Financial Crimes Investigation Board (FCIB) supervision within the scope of prevention of the laundering of proceeds of crime, financing of terrorism and proliferation of weapons of mass destruction legislation,

From an IT perspective, Information Security Unit performs routine controls on network, database, operating system, application layers within the scope of security application and monitoring processes. In addition, independent penetration test processes monitored through the action plans and reported to the BRSA and CMB are also implemented. Furthermore, penetration testing results are submitted to the CBRT with the Information Systems risk report.

**Core Principle 3: The FMI should have clearly defined operational reliability targets and policies designed to achieve these targets.**

S.17.3.1: What do the FMI's qualitative and quantitative operational reliability targets comprise? Where and how are these put in writing?

The FMI's operational reliability targets are documented in Takasbank Information Systems Directive and linked procedures and guidelines. The entire documentation is versioned, stored, maintained and kept updated in the document management system. In principles and procedures for information systems management; the Regulation on Banks' Internal Systems and ICAAP, and The Regulation on the Banks' Information Systems and Electronic Banking Services issued by BRSA, the General Regulation on the Establishment and Operating Principles of Central Clearing and Settlement Institutions and the Information Systems Management Communiqué (VII-128.9) issued by CMB, the Regulation on Operations of Payment and Securities Settlement Systems and the Communiqué on Information Systems used in Payment and Securities Settlement Systems issued by the CBRT constitute the basis and Takasbank Strategic Plan, ISO 22301, ISO 27001, ISO 20000-1 Standards, and CPMI-IOSCO principles are referenced.

Accessibility, continuity, security, and all other IT Service Management processes, within the scope of ISO 22301, ISO 27001, and ISO 20000-1 certifications held by Takasbank, are defined in the KPI Table attached to the Process and Quality Management Procedure and they are measured and reported in certain intervals.

Takasbank's future strategic goals and plans are determined with the Strategic Plan prepared for 3-year periods and approved by the Board of Directors. The goals in the Takasbank Strategic Plan are categorized and clearly defined under 4 main aspects under the titles "strong financial structure", "effectiveness and depth of markets", "operational and technological excellence", and "organizational effectiveness and increasing group synergy". A significant portion of 93 initiatives, defined under 11 main strategic goals of our Bank, emphasize operational reliability, while these projects and other studies regarding these initiatives are regularly monitored, measured, and reported to the Senior Management and the Board of Directors.

S.17.3.2: How do such targets ensure a high degree of operational reliability?

Legal requirements, requirements of held certifications, opinions of senior management on target values, Takasbank Strategic Plan, and expectations of stakeholders are taken into consideration when targets are determined. Measurement results are communicated to stakeholders and their feedbacks are evaluated. A satisfaction survey is held once a year and all members are asked about their satisfaction levels regarding Takasbank reliability, and improvement actions for deviations from the target value are taken by the senior management.

S.17.3.3: What do the policies, designed for the FMI to achieve its operational reliability targets that will ensure taking appropriate action as necessary, comprise?

Takasbank Business Continuity Directive and Takasbank Information Systems Directive approved by the Bank's Board of Directors, as well as procedures connected to these regulations, are documented within the scope of Takasbank ISO22301 certification and BCMS documentation. In addition, compliance with ISO 20000-1 IT Service Management standard was ensured.

**Core Principle 4: The FMI should have an adequate level of scalable capacity to deal with increasing amount stress and achieve its service level goals.**

S.17.4.1: How does the FMI review, audit, and test scalability and adequacy of its capacity to maintain its operations smoothly at least under the estimated amount of stress?

In Takasbank, an IT operations management function is operated, which performs the daily management and maintenance of the IT infrastructure in order to ensure that IT services are provided in accordance with the defined service levels. A help desk function and problem management process has been established to respond promptly to IT operational incidents, to provide support to users in technology-related problems, to transfer problems to the relevant IT units for investigation and resolution, to record, analyze and follow up the incidents until the reported problems are corrected. Monitoring activities are carried out in order to ensure that the performance of the Bank's information systems is continuously monitored and unexpected situations are reported in a timely manner. Capacity management and planning are carried out in order to ensure that the IT capacity is available in the Bank to meet the current and future business

requirements specified in the IS strategy plan, in accordance with the defined service levels and workload forecasts. Routine maintenance and operation activities of the Bank's application services are carried out.

Takasbank systems are offered with capacities that are far higher than the current level of usage. The systems are regularly measured in terms of capacity; and their capacities are planned in accordance with ITIL processes. Capacities are assessed in the business continuity tests and continuity plans and IT investment plans are made accordingly.

S.17.4.2: How are the circumstances, where operational capacity is approached or exceeded, addressed?

Our infrastructure capacity is regularly reviewed and the probability of occurrence of capacity problems is considered unlikely since connections to the system are secured over Local Area Network. Disk capacities are also monitored regularly and the disks reaching certain levels are updated on a daily basis.

In Takasbank, the highest level of maintenance agreements are made for applications and other systems that make up the infrastructure, and systems that minimize technological risk factors are preferred. Necessary precautions are taken against risks that may interrupt our computer systems. In order to protect Takasbank from malfunctions in the operation of the computer system or other devices that may occur as a result of a power cut, a double uninterruptible power supply and double generator system is used to provide uninterrupted energy for the computers in the data center. The electricity supply of each system is passed through different fuses, thus preventing the failure of one system from affecting the others. Parts such as disk, power supply, network connections are available as redundant on the systems. Thus, an uninterrupted operation is ensured by automatically activating a spare unit instead of a faulty unit. Critical data is backed up regularly, and the accuracy and reversibility of the backups are periodically checked by a team independent of the backup operation.

**Core Principle 5: The FMI should have comprehensive physical security and information security policies considering all potential vulnerabilities and threats.**

#### *Physical security*

S.17.5.1: What do the FMI's policies and processes that also include change and project management policies and processes, which ensure that potential sources of physical vulnerabilities and threats are continuously taken into consideration, comprise?

In Takasbank information systems, access and authorization controls are implemented on the basis of application, infrastructure, database and hardware. Bank employees only have access to programs determined by their job description and title. There is an authorization procedure for all transactions made in Takasbank system. Within the framework of this procedure, authorizations arising from the specific actions of the personnel regarding the title, responsibilities and division are made. The logs of the Bank's users transactions carried out in systems subject to access and authorization restrictions are stored and controlled.

Equipped with a camera system around the Bank, identification at visitor entrances, checking the belongings of visitors with an X-Ray device, recording personnel and visitor entries and exits using magnetic cards reduce the possibility of operational risks regarding the Bank's physical security.

Takasbank has established the necessary network security control systems for threats from both its internal and external networks. The establishment of security measures is based on a layered security architecture, in which another security layer is activated if one security layer is breached.

Takasbank has tightened and tested security configuration standards for the system, software, network devices and IT equipment where data is transported, stored, transmitted or processed. Bank secure standard configurations (minimum security baseline) are defined according to the relevant infrastructure components.

Techniques, detection mechanisms, patch impact assessment and testing processes are carried out to perform patch management by quickly and effectively addressing security vulnerabilities in systems, software and devices in order to reduce the possibility of situations that will interrupt or significantly adversely affect the Bank's operations.

Monitoring and scanning activities are carried out in the Bank regarding the detection of security vulnerabilities.

A cyber incident management and response to cyber incidents process has been established in the bank for the handling and follow-up of the cyber incidents, in order to return the IT services to their normal functioning as soon as possible and in a way that will affect the banking activities the least after the cyber incidents, and penetration tests are carried out.

Security barriers and access controls are applied to the Bank's data centers, system rooms and network equipment rooms, as well as the controls applied regarding physical access to the systems and devices where information assets are kept.

Processes within the scope of Takasbank information security policy have been defined and the policy has been approved by the Bank's Board of Directors. Similarly, a self-assessment shall be conducted considering the processes compatible with ISO 27001 certificate and the guide on "Cyber Resilience for Financial Market Infrastructures". In addition, the process is monitored and improved through the independent penetration tests conducted annually and vulnerability scans performed monthly within the scope of the applicable regulations. Takasbank is subject to BRSA audits as a bank and CMB audits as a capital market institution and the relevant processes are assessed every year as part of independent audits. An audit of conformity to standards is also conducted every year at Takasbank that has ISO 27001 certificate.

The risks that may arise during the projects are also evaluated regularly. Before the components of all projects developed within Takasbank are taken into the real environment, by Information Technologies (IT) Teams and/or users; Tests and controls are carried out regarding security, accuracy, performance, compliance with standards, user management and its effects on other systems.

S.17.5.2: Do the FMI's policies, processes, controls, and tests duly consider national, international, and sectoral standards concerning physical security?

Processes within the scope of Takasbank information security policy have been defined and the policy has been approved by the Bank's Board of Directors. Similarly, a self-assessment shall be conducted considering the processes compatible with ISO 27001 certificate and the guide on "Cyber Resilience for Financial Market Infrastructures". In addition, the process is monitored and improved through penetration tests conducted annually and vulnerability scans performed bi-monthly within the scope of the BRSA communiqués. As a bank, Takasbank is subject to audit within the scope of RBISEBS and relevant processes are assessed in every 2 years within the scope of independent audit. An audit of conformity to standards is also conducted every year at Takasbank that has ISO 27001 certificate. "Independent audits are conducted yearly within the scope of CMB information systems legislation, and in every 2 years within the scope of BRSA Information Systems RBISEBS legislation.

#### *Information security*

S.17.5.3: What do the FMI's policies and processes that also include change and project management policies and processes, which ensure that potential sources of information security-related vulnerabilities and threats are continuously taken into consideration, comprise?

Procedures issued under Takasbank Information Systems Directive are available for change management and project management processes within Takasbank. Information security matters are taken into consideration as relevant processes are designed and maintained.

Processes within the scope of Takasbank Information Security Policy have been defined and the Directive has been approved by the Bank's Board of Directors. Our information security management system was documented in full detail in the Directive and connected procedures, whereas all of our directives, procedures, and process documents concerning information technologies are reviewed at least once a year and updated as necessary. In addition, the process is monitored and improved through the independent penetration tests conducted annually and vulnerability scans performed monthly within the scope of the BRSA, CMB, and CBRT regulations and related other party regulations.

Similarly, a self-assessment shall be conducted considering the processes compatible with ISO 27001 certificate and the guide on "Cyber Resilience for Financial Market Infrastructures". In addition, the process is monitored and improved through penetration tests conducted annually and vulnerability scans performed monthly within the scope of the BRSA communiqués.

Q.17.5.4: Do the FMI's policies, processes, controls, and tests duly consider national, international, and sectoral standards concerning information security?

Our directive, procedure, and process documents were established under Takasbank information security management system within the scope of BRSA, CMB, and CBRT regulations and other related party regulations, whereas they are reviewed at least once a year and updated as necessary.

As a bank, Takasbank is subject to audit within the scope of BRSA RBISEBS and relevant processes are assessed in every 2 years within the scope of independent audit. An audit of



conformity to standards is also conducted every year at Takasbank that has ISO 27001, ISO 22301, and ISO 20000-1 certificates. “Independent audits are conducted yearly within the scope of CMB information systems legislation, and in every 2 years within the scope of BRSA RBISEBS legislation. In addition, our processes were aligned with ISO 20000-1 IT Service Management Standard and external audits were performed every year.

**Core Principle 6: The FMI should have a business continuity plan that considers events posing significant risk of interrupting operations, including situations that could cause extensive or significant interruption. The plan should involve utilization of a secondary center and it should be designed so as to enable critical information systems to resume operations within 2 hours following the event that caused the interruption. The plan should be designed so that the FMI completes settlement by the end of the day when interruption is experienced, even under extraordinary circumstances. The FMI should regularly test these arrangements.**

*Objectives of the business continuity plan*

S.17.6.1: How and in which scope does the FMI’s business continuity plan reflect targets, policies, and procedures that enable rapid recovery and relaunch of critical activities following a wide-scale or major disruption?

All processes and work flows, which are necessary to fulfill the Business Continuity requirements at the Bank, are within the scope of Takasbank Business Continuity Procedure and Business Continuity Plan, and Takasbank Business Continuity Directive.

As detailed in S.3.4.1, Takasbank’s Business Continuity Plan was prepared in consideration of all kinds of wide-scale or major disruption scenario that might be incurred by resources that it owns, and recovery plans were prepared for each scenario. These plans are reviewed and tested annually.

*The design of business continuity plan*

S.17.6.2: How and to what extent was the FMI’s business continuity plan designed to ensure that critical information systems resume operations within at the latest 2 hours following the event that caused the interruption and ensure completion of settlement by the FMI by the end of the day when interruption is experienced or enable the settlement to be completed, even under extraordinary circumstances?

Takasbank Business Continuity Plan is prepared, tested, and reviewed annually by owners of business services that are identified to be critical as a result of Business Impact Analyses and IT Services that are necessary for performance of such businesses. The Service Recovery Time Objective (RTO) has been determined by process owners and the RTO objectives for the services provided by the FMI has been set as 2 hours. The Secondary Data Center has been operational since 2000 against circumstances where the Primary Data Center is unusable, and its effective uptime is confirmed with Emergency/Disaster Drills that are performed every year. Emergency/Disaster Drills measure restoration capability of systems and infrastructures within two hours from the Secondary Data Center and this measurement result is given in the issued report.

S.17.6.3: How is the emergency and contingency plan designed to ensure that statuses of all transactions are timely determined in case of a disruption, and what are the procedures to be used to overcome these losses in case a data loss probability is present (for example, such as updating accounts with participants or third parties)?

The service owners have determined the service-related risks included in the recovery plans (Business Continuity Plan) specific to the service and the strategies to be followed in case of materialization of such risks. It is tested in certain periods under necessary scenarios (including data loss scenarios). End-of-day data backups are made every day to minimize data loss and a majority of the data is stored for 20-year periods in the company. In addition, data is reflected to the secondary data center simultaneously as the primary data center for the banking database. Thus, data, Recovery Point Objective (RPO) of which is determined as “lossless” with Business Impact Analyses, are transferred instantly to secondary systems.

S.17.6.4: How do the FMI’s crisis management procedures consider the need for effective communication that should be established with internal elements, important external stakeholders, and authorities?

Takasbank has a communication plan and a Communication Plan document, indicating the communication texts that must be used both during normal periods and at the time of a crisis. This plan contains detailed information on circumstances, approval mechanisms, and channels for communication with all internal and external stakeholders. This plan is reviewed and updated annually.

#### *Secondary center*

S.17.6.5: How does the FMI’s business continuity plan involve the use of a secondary center (including ensuring that the secondary center has sufficient resources, capacity, functionality, and appropriate employment arrangements)? To what extent is the secondary center geographically located at a distant place to ensure that it has a different risk structure than the primary center?

The secondary data center is at Türk Telekom Data Center located in Ümitköy, Ankara (DDC). A satisfactory infrastructure at international standards has been established by Türk Telekom Inc. The DDC systems have the required capacity to carry out Bank’s functions and to establish communication with other agencies and institutions.

Our secondary operation center, Disaster Operation Center (DOC) is located in Borsa İstanbul Yenibosna campus. It is nearly 30 km away from Takasbank. It has been designed to accommodate an adequate number of employees in case of occurrence of a disaster. An adequate number of employees may quickly access the secondary data center (DDC) using the current client computers.

S.17.6.6: Did the FMI take into consideration alternative arrangements to enable performance of critical transactions in exceptional circumstances (such as manual, procedures on paper, or other alternatives)?

In the recovery procedures stipulated in the Information Systems Continuity Plans and associated Business Continuity Plan, the planning of the activities considering the recovery methods such as conducting business through manual processes according to the disruption, performance of

operations by business units with instructions instead of the members, etc. have been taken into account.

#### *Review and testing*

S.17.6.7: How are the FMI's business continuity and emergency and contingency arrangements reviewed and tested, including assessments performed according to scenarios concerning wide scale and major disruptions? How often are these arrangements reviewed and tested?

Disruption scenarios included in the Information Systems Continuity Plan associated with the Business Continuity Plan, which require transition to the Secondary Data Center, are reviewed and tested with Emergency/Disaster Drills at least once a year. In addition, Restoration Testing, involving restoration from backup systems, are performed twice a year. In addition, process owners also conduct unit testing and/or desktop testing.

S.17.6.8: How do the review and testing studies for the FMI's business continuity and emergency and contingency arrangements involve the FMI's participants, critical service providers, and linked FMIs where relevant? How often are the FMI's participants, critical service providers, and linked FMIs included in the review and testing studies?

Takasbank Emergency/Disaster Drills held every year are conducted jointly with BİAŞ and the CRA, both of which are in Borsa Istanbul Group, and with all Bank participants. In addition, critical service providers are contacted before each drill, and the timing and scenario of the drill are shared with them and they are asked to provide information related to their employees that will support the drill. Some of these offer remote support, while others directly participate in the drill.

**Core Principle 7: The FMI should define, monitor, and manage risks, which may impact its activities and which arise from its critical participants, other FMIs, service and utility providers. In addition, the FMI should also define, monitor, and manage risks, which arise from its own activities and which may impact other FMIs.**

#### *Risks impacting the FMI's own activities*

S.17.7.1: Which risks, which may impact its activities and which arise from its critical participants, other FMIs, service and utility providers, did the FMI define? How and to what extent does the FMI monitor and manage such risks?

The Bank's risks originating from the Check Clearing System are considered under operational risk. Such risks are monitored via the Operational Risk Database and the Operational Risk Loss Database; and there is no loss related with the Check Clearing System in the Bank's Operational Risk Loss Database.

The risks that are defined by each unit of the Bank on a service and subservice basis are monitored through the Operational Risk Database as per Takasbank Operational Risk Management Procedure. In the Operational Risk Database that is updated at least once a year, subprocess risks and controls established in relation to such risks can be defined in an open platform that is accessible to the Bank personnel at all times by service owners and/or risk and control supervisors, after holding mutual meetings with all units under the coordination of the Risk Management Unit and Internal Control Unit, based on the Bank's Service Catalogue; and the records related to the said database

also provide inputs for the activities related with the Governance Statement document. The actions recommended for the risks with net risk level equal to or above the operational risk appetite and key risk indicators are monitored by the Internal Control Unit, and these risks are reported by the Risk Management Unit to the Senior Management and it is ensured that necessary actions are taken.

S.17.7.2: If the FMI procures external services in respect of services that are critical to its activities, how and to what extent is it ensured that reliability and emergency/contingency requirements, which should have been fulfilled by the FMI had such services been provided with internal resources, fulfilled by critical service providers in the same manner?

The risks that may result from procurement of services are assessed by the Bank in order to ensure the continuity of the services outsourced from support service companies. In this context, pursuant to the Regulation on the Banks' Procurement of Support Services published by the BRSA, an annual risk management program is created and the Risk Analysis Report prepared by the Risk Management Unit regarding support service provider companies and the technical adequacy report prepared by the relevant unit receiving the support service are reported to the Board of Directors at least once a year as an appendix attached to the Audit Committee assessment report. Besides, the criticality levels of the suppliers are determined by the Bank and important vendors/suppliers are identified.

It is assessed by the department/team that requests the service, in consideration of Confidentiality, Integrity, Availability, Compliance, Finance, Reputation, Access, and Authorization effect, whether the service subject to procurement is included in the scope of external service procurement. The assessment study is submitted to Legislation and Compliance Unit and Information Systems Control Team. In case of any dissenting opinion, such opinion is submitted to the relevant Team. The decision, made by the Department/Team that requests the service, is implemented as the final decision. Technical Adequacy Report is issued for suppliers selected as external service providers.

The Bank may also ask the relevant companies to take out liability insurance in order to compensate potential damages that might result from the risks that the Bank may be exposed to due to the services procured from support service companies.

Compliance of companies, from which support services are received, with contract provisions is monitored by the Risk Management Unit on a semi-annual basis and the Summary IS Risk Assessment Report, which includes the results, is reported to the Board of Directors at least annually.

Audit of processes related to bank information systems is carried out on the basis of the provisions of BRSA's Regulation on Banks' Information Systems and Electronic Banking Services, CMB's Information Systems Management Communiqué and CBRT's Communiqué on Information Systems Used in Payment and Securities Settlement Systems, and Information and Communication Security Guide and Information and Communication Security Audit Guide issued by the Presidential Digital Transformation Office.

Internal Audit Unit of our Bank may conduct on-site audits for support services and external services. In addition, Internal Control Unit may conduct on-site audit concerning external service companies.

These processes and the processes on assessment of supplier performances and conducting materiality analyses are indicated in detail in Takasbank Procurement Directive, Takasbank Procurement Procedure, Supplier Relations Management Procedure, Takasbank Support Service and External Service Procurement Procedure, and Takasbank Service Level Agreements Procedure for External Service Procurements. In addition to this, Statement of Responsibilities for the Utilization of Takasbank Information Assets by External Institutions are annexed to the contracts.

Periodic controls are also carried out by the Internal Control Unit regarding the supplier management process.

### *Risks that impact other FMIs*

S.17.7.3: How and to what extent does the FMI define, monitor, and mitigate its risks that may impact another FMI?

The Bank's risks originating from the Check Clearing System are considered under operational risk. Such risks are monitored via the Operational Risk Database and the Operational Risk Loss Database; and there is no loss related with the Check Clearing System in the Bank's Operational Risk Loss Database.

Risks based on services and sub-services are defined in the Operational Risk Database by each unit of the Bank. In the Operational Risk Database that is updated at least once a year, subprocess risks and controls established in relation to such risks can be defined in an open platform that is accessible to the Bank personnel at all times by service owners and/or risk and control supervisors, after holding mutual meetings with all units under the coordination of the Risk Management Unit and Internal Control Unit, based on the Bank's Service Catalogue; and the records related to the said database also provide inputs for the activities related with the Governance Statement document. The actions recommended for the risks with net risk level equal to or above the operational risk appetite and key risk indicators are monitored by the Internal Control Unit, and these risks are reported by the Risk Management Unit to the Senior Management and it is ensured that necessary actions are taken.

The operational risks that the Bank is/might be exposed to are covered to a substantial extent with the insurance policies taken out.

S.17.7.4: To what extent does the FMI coordinate its business continuity arrangements with relevant arrangements of other FMIs having interdependencies?

Tests are coordinated and scenarios are determined in cooperation with other stakeholders that we rely on by virtue of Bank's services. In addition, the related party analyses are regularly repeated every year; and the communication efficiency under business continuity, the BCMS-related maturity of such institutions, the risks and the points for improvement are determined. The business continuity legislation, principles and requirements are evaluated and harmonized by Borsa İstanbul Group Business Continuity Works Committee jointly established with the CRA and especially Borsa İstanbul, Bank's highest point of dependency. In addition, there is also a B2B Business Continuity Document jointly prepared for the three organizations.

*Takasbank Assessment Result for CPMI-IOSCO Principle 17*

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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### **Principle 18: Access And Participation**

An FMI should have objective, risk-based, and publicly disclosed criteria to ensure open and fair participation in the system.

**Core Principle 1: The FMI should enable its direct and, as applicable, indirect participants and other FMIs access its services in an open and fair manner within the scope of risk-based reasonable participation conditions.**

*Participation criteria and conditions:*

S.18.1.1: What do FMI's the participation criteria and conditions (such as operational, financial, and legal conditions) comprise?

Conditions for participation in the System were stipulated in Section Three titled "Participation in the System and Obligations of the Participant" of the Regulation on Check Clearing Operations issued by the CBRT.

In addition, pursuant to Section Two titled "Principles for Participation" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, participants to be included in the Check Clearing System;

- must have bank status subject to the Banking Law no. 5411 of 19/10/2005,
- signing and submission of system agreement, contents of which are determined by Takasbank, "Implementation Agreement for Check Clearing System Participant Orders to be Sent by Fax / E-Mail to İstanbul Takas ve Saklama Bankası A.Ş. and Pre-Agreement Information Form" published on Takasbank corporate website, and
- "Cash, Value, Collateral, and Conditional Transfer and Electronic Fund Transfer (EFT) Order Commitment Letter" and pre-agreement information forms pertaining to this agreement and commitment letters,
- Having taken necessary measures to establish and ensure functionality of the technical infrastructure to perform transactions with Takasbank.

S.18.1.2: How does the participation criteria and conditions permit direct and, as applicable, indirect participants and other FMIs to access the FMI's services in an open and fair manner within the scope of risk-based reasonable participation conditions?

Banks that apply for participation must have bank status subject to the Banking Law no. 5411.

There is no discriminatory practice or restriction in the participation, application and approval process, other than the fact that CBRT is a participant with special status. It was clearly specified in paragraph 4 of article 5 titled "Participation in the System" of the System Rules that the CBRT was a participant with special status, there was no need for any application and assessment for participation to the system.

Participation conditions are specified in detail in Section Two titled “Principles for Participation” of the System Rules and they are available on Takasbank’s website.

In addition, the participant agreement to be signed with our Bank has a standard content; and the pre-agreement information form and the agreement are available on Takasbank’s website.

Among the participation conditions, there is no condition restricting the access in an unfair and unjustified manner.

**Core Principle 2: The FMI’s participation conditions should be adjusted in terms of security and effectiveness of the FMI and markets served by the FMI, also arranged according to and in proportion with the FMI’s specific risks, and disclosed to the public. The FMI should endeavor to establish the participation conditions in the least possible restrictive manner, provided that acceptable risk control standards are maintained.**

*Legitimacy and rationality of participation criteria*

S.18.2.1: How are the FMI’s participation conditions, security and effectiveness of the FMI, as well as the role of the FMI in the markets where it offers services, regulated according to and in proportion with the FMI’s specific risks?

It is clearly stated in article 9 titled “Obligations of the Participant” in the System Rules that participants had to take measures in all regards that would prevent operation of the system and compromise the system, and obligations of the participants are determined in detail also in the participant agreements signed with the participants.

S.18.2.2: Are there participation conditions that are not risk-oriented but compulsory due to laws or regulations? If available, what do such conditions comprise?

Participants must have bank status subject to the Banking Law no. 5411.

In addition, conditions in Section Three titled “Participation in the System and Obligations of the Participant” of the Regulation on Check Clearing Operations should be fulfilled as well. Provisions in both regulations were incorporated when the System Rules were prepared.

S.18.2.3: Are all participant groups subject to the same participation conditions? What is the fundamental justification behind determination of different criteria in case different participation conditions are available (for example, such as size or type of activity, additional requirements for participants that act on behalf of third parties, additional requirements for participants included in non-regulated institutions)?

The same participation conditions were determined for all participants, other than the fact that the CBRT is a participant with special status, and the participation conditions are explained in detail in the System Rules.

*Least restrictive access*



S.18.2.4: How are the access restrictions and conditions, which would enable the least restrictive access permitted by the conditions provided that they are consistent with acceptable risk standards, reviewed? How often are review operations conducted?

Among the participation conditions, there is no condition restricting the access in an unfair and unjustified manner.

#### *Disclosure of criteria*

S.18.2.5: How are the participation conditions disclosed to the public, including restrictions on participation?

Participation conditions were stipulated in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, announced to the participants with a general letter, and disclosed to the public on our Bank’s corporate website.

**Core Principle 3: The FMI should constantly monitor compliance with participation conditions and have clearly defined and publicly disclosed procedures to ensure suspension of participation or orderly exit of a participant, who breaches or no longer fulfills participation conditions, from the system.**

#### *Monitoring compliance*

S.18.3.1: How does the FMI constantly monitor the compliance of its participants with the participation conditions? How were the FMI’s policies designed to ensure that information used to monitor compliance with the participation conditions is always current and accurate?

Participant statuses are shared with our Bank pursuant to the Banking Law legislation.

The Participants should also fulfill the conditions in Section Three titled “Participation in the System and Obligations of the Participant” of the Regulation on Check Clearing Operations. Such conditions were clearly determined in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules. Methods to be followed in case of non-conformity with participation conditions are clearly determined in article 10 of the System Rules, involving termination of activities of the participant, removal from the system, and Takasbank’s powers.

S.18.3.2: What are the policies of the FMI on imposition of more audit or additional control on a participant whose risk profile deteriorates?

It is specified in paragraph 1 of article 10 titled “Termination of Activities of the Participant, Removal from System, and Takasbank’s Powers” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that upon identification that the Participant lost the eligibility to participate, Takasbank would be entitled to require fulfillment of such liabilities within the suitable period, no longer than 3 months, to be granted.

In addition, pursuant to paragraph 2 of article 10 of system rules, if significant risks that may endanger the safe and uninterrupted operation of the clearing system occur due to failure of the participant to maintain participation requirements or to fulfill their obligations, it is authorized to

permanently or temporarily terminate the activities of the participant on the system without granting any period.

### *Suspension and orderly exit*

S.18.3.3: What are the FMI’s procedures, aimed at management of suspension of participation or orderly exit of a participant, who breaches or no longer fulfills participation conditions, from the system?

if significant risks that may endanger the safe and uninterrupted operation of the clearing system occur due to the loss of requirements for participation in the System or the failure to fulfill obligations, Takasbank is authorized to permanently or temporarily terminate the activities of the participant on the system without granting any period pursuant to paragraph 2 of article 10 titled “Termination of Activities of the Participant, Removal from System, and Takasbank’s Powers” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules. This situation is notified to CBRT.

Takasbank is entitled to take any measure that is deemed necessary, including the following measures, to complete clearing and settlement transactions of a participant that is suspended or removed from the system within the scope of paragraph 8 of article 10 titled “Termination of Activities of the Participant, Removal from System, and Takasbank’s Powers” of Takasbank, İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules.

- To prevent the participant from making transactions on their accounts directly with Takasbank,
- To employ the guarantee mechanism contribution of the participant.

S.18.3.4: How are the FMI’s procedures, aimed at management of suspension of participation or orderly exit of a participant from the system, disclosed to the public?

Procedures owned to manage suspension of participation or orderly exit of a participant from the system are established in detail in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, announced to participants with a general letter and also disclosed to the public on the corporate website of our Bank.

In addition, rights and obligations of Participants and Takasbank are clearly determined in participant agreements signed with the participants.

### ***Takasbank Assessment Result for CPMI-IOSCO Principle 18***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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### **Principle 19: Tiered Participation Arrangements**

The FMI should define, monitor, and manage material risks arising from tiered participation arrangements.

**Core Principle 1: The FMI should ensure that its rules, procedures, and agreements enable collection of essential information about indirect participation so that it is able to manage material risks arising from tiered participation arrangements.**

There is no tiered participation in the Check Clearing System. Thus, the following questions were not answered.

S.19.1.1: Does the FMI have tiered participation arrangements? If any, please describe your tiered participation arrangements.

S.19.1.2: How does the FMI collect essential information on indirect participation? Which information is collected and how often is the collected information updated?

*The risks that the FMI is exposed to*

S.19.1.3: How does the FMI assess the risks arising from tiered participation arrangements?

S.19.1.4: Which material risks, arising from tiered participation arrangements, were identified by the FMI? What kind of measures are taken to mitigate such risks?

**Core Principle 2: The FMI should identify important links between its indirect participants and direct participants, which might also impact the FMI itself.**

S.19.2.1: How does the FMI identify important links between its indirect participants and direct participants, which might also impact the FMI itself?

There is no tiered participation in the Check Clearing System.

**Core Principle 3: The FMI should define the indirect participants that make a major portion of the transactions in the FMI and the indirect participants, whose transaction numbers and amounts have an important share within the capacity of the direct participant that enables them to access the FMI, in order to manage risks arising from these transactions.**

S.19.3.1: Did the FMI identify; (a) the rate of transactions performed by each direct participant on behalf of indirect participants to the total capacity of the direct participant, (b) direct participants that act on behalf of a significant number of indirect participants, (c) indirect participants that are responsible for a significant portion of transactions performed in the system, (d) indirect participants, whose transaction numbers and amounts have an important share within the capacity of the direct participant that enables them to access the FMI in order to manage risks arising from these transactions?

There is no indirect participation in the Check Clearing System.

S.19.3.2: Which risks arising from its principal indirect participants does the FMI have and how does the FMI manage these risks?

There is no indirect participation in the Check Clearing System.

**Core Principle 4: The FMI should regularly review the risks arising from tiered participation arrangements and take risk-mitigating measures as appropriate.**

There is no tiered participation in the Check Clearing System. Thus, the following questions were not answered.

S.19.4.1: What are the review policies concerning rules and procedures employed by the FMI to mitigate risks arising from tiered participation arrangements? How often is such review performed?

S.19.4.2: Which criteria does the FMI employ to decide that risk-mitigating actions should be taken? How does the FMI monitor and mitigate its risks?

***Takasbank Assessment Result for CPMI-IOSCO Principle 19***

<b>Observed</b> <input type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input checked="" type="checkbox"/>
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**Principle 21: Efficiency and Effectiveness**

An FMI should be efficient and effective in fulfilling requirements (needs) of its participants and the market it serves.

**Core Principle 1: An FMI should be designed so that the needs of its participants and served market are fulfilled, particularly in terms of preferences in clearing and settlement arrangements, operational structure, scope of cleared, settled, and registered products, and choices regarding the use of procedures.**

S.21.1.1: How does the FMI identify that its design considers the needs of its participants and served market (clearing and settlement arrangements, operational structure, delivery system and technologies, and retail services and products)?

Takasbank closely monitors the developments concerning the Check Clearing System. It works in close contact with the CBRT in order to ensure the operability of its business rules. Likewise, it organizes meetings and participant training upon request to ensure that such rules effectively fulfill the needs of participants. Besides, the customer satisfaction surveys held on an annual basis strengthens the continuous improvement-oriented service approach in order to ensure that the impact that the service provided creates on the counterparty is measured and the necessary enhancements are duly made.

Takasbank Satisfaction Survey, conducted for 2023, resulted in a high satisfaction rate of 98% for the Check Clearing System Service.

Continuous improvement works are carried out on application screens to increase participant satisfaction.

All kinds of arrangement and development is tested primarily with Takasbank users than the participants, no application is transferred to live environment without completing the tests smoothly.

S.21.1.2: How does the FMI determine whether requirements and needs of its participants and other users are fulfilled and whether fulfillment continues as such requirements change (for example by means of feedback mechanisms)?

Takasbank closely monitors the developments concerning the Check Clearing System. It works in close contact with the CBRT in order to ensure the operability of its business rules. Likewise, it organizes meetings and participant training upon request to ensure that such rules effectively fulfill the needs of participants. Besides, the customer satisfaction surveys held on an annual basis strengthens the continuous improvement-oriented service approach in order to ensure that the impact that the service provided creates on the counterparty is measured and the necessary enhancements are duly made.

Takasbank Satisfaction Survey, conducted for 2023, resulted in a high satisfaction rate of 98% for the Check Clearing System Service.

Continuous improvement works are carried out on application screens to increase participant satisfaction.

All kinds of arrangement and development is tested primarily with Takasbank users than the participants no application is transferred to live environment without completing the tests smoothly.

**Core Principle 2: The FMI should have clearly defined, measurable, and achievable goals and objectives in areas such as minimum service level, risk management expectations, and business priorities.**

S.21.2.1: What are the components of the FMI's objectives and goals in terms of the effectiveness of its activities?

Takasbank's future strategic goals and plans are determined with the Strategic Plan prepared for 3-year periods and approved by the Board of Directors. Our goals in the Takasbank Strategic Plan are categorized and clearly defined under 4 main aspects under the titles "strong financial structure", "effectiveness and depth of markets", "operational and technological excellence", and "organizational effectiveness and increasing group synergy". Fundamental objectives and initiatives in Takasbank's Strategic Plan for 2022-2024 Period aims to protect the interests of our stakeholders with the objectives under the title "strong financial structure", contribute to national economy and sectoral development with the objectives under the title "effectiveness and depth of markets", ensure that our members/clients continue receiving high-quality and uninterrupted service with the objectives under the title "operational and technological excellence", and increase satisfaction and competencies of our personnel and synergy within Borsa İstanbul Group with the objectives under the title "organizational effectiveness and increasing group synergy".

S.21.2.2: How does the FMI ensure that it has clearly defined, measurable, and achievable objectives and goals?

Takasbank's future strategic goals and plans are determined with the Strategic Plan prepared for 3-year periods and approved by the Board of Directors. Our goals in the Takasbank Strategic Plan are categorized and clearly defined under 4 main aspects under the titles "strong financial structure", "effectiveness and depth of markets", "operational and technological excellence", and "organizational effectiveness and increasing group synergy". Goal achievement degree and Bank performance are regularly assessed by the Board of Directors as specified in the Strategic Plan. In this context, a Strategic Plan Progress Report is prepared as of year-ends and presented to the Bank's Board of Directors. S.21.2.3: To what extent were the objectives and goals realized? What kind of mechanisms does the FMI have to measure and evaluate the extent of achievement of goals?

11 fundamental objectives were identified under the titles "strong financial structure", "effectiveness and depth of markets", "operational and technological excellence" and "organizational effectiveness and increasing group synergy" and 93 initiatives were introduced to achieved such objectives in "Takasbank's Strategic Plan for 2022-2024 Period" approved in the meeting no. 426 of 28/01/2022 of our Bank's Board of Directors. Goal achievement degree and Bank performance are regularly assessed by the Board of Directors as specified in the Strategic Plan. In this context, a Strategic Plan Progress Report is prepared as of year-ends and presented to the Bank's Board of Directors.

**Core Principle 3: The FMI should have mechanisms established for regular review of its efficiency and effectiveness.**

S.21.3.1: Which processes and measurements does the FMI use to evaluate its efficiency and effectiveness?

There is an external customer satisfaction survey conducted by our Bank every year; and the improvements to further increase the effectiveness and efficiency of the services provided by our Bank are made according to the results of the said survey. In addition to Bank satisfaction survey regularly conducted every year, briefing meetings with Bank's participants and project tests within the scope of the relevant projects are carried out with the support of Bank's participants.

S.21.3.2: How often does the FMI evaluate its efficiency and effectiveness?

Every year.

***Takasbank Assessment Result for CPMI-IOSCO Principle 21***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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## **Principle 22: Communication Procedures and Standards**

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 processes.

### **Core Principle 1: The FMI should use internationally recognized communication procedures and standards or at least align with these standards as necessary.**

#### *Communication Procedures*

S.22.1.1: Does the FMI use an internationally recognized communication procedure? If it does, which one? How does the FMI align with such procedures if it does not use an internationally recognized communication procedure?

Takasbank Check Clearing System does not employ and international communication procedure and CBRT payment systems (EFT) are used in TRY payments as transactions are performed in TRY.

EFT, ESTS, and SWIFT systems are used in guarantee mechanism contribution transfers.

S.22.1.2: If the FMI engages in cross-border transactions, how do the FMI's operational procedures, processes, and systems utilize or align with internationally recognized communication procedures for such transactions?

Currently, no international standard is employed as no transaction is made in currencies other than TRY for Takasbank Check Clearing System settlement transactions.

However, Takasbank systems disintegrate information in messages, received in SWIFT ISO 15022 and ISO 20022 standards, and forward these to the relevant Takasbank sub-system within the scope of Takasbank's other activities. For example, equity conditional transfer, USD/EUR cash transfer, and global custody services messages, received by Takasbank through SWIFT channel, is directed to the relevant internal system of Takasbank according to message information and responses generated by these systems are sent back again through SWIFT channel to relevant local custody bank, foreign currency cash correspondent, or foreign value correspondent under our current practices. All incoming and outgoing SWIFT messages can be monitored on internal systems. In order to ensure security in SWIFT communications, the bank uses a SWIFT application called "Customer Security Framework"; Bank compatibility with this application is declared on the SWIFT website and this compatibility is monitored by the internal and external sources.

In addition, a specific application is used for controlling sanctions lists. The Sanctions List Inquiry product allows the Bank to automatically scan our Bank's records for sanctioned persons listed in natural and legal person sanction lists on the websites of institutions such as OFAC, UN, UK, EU and FATF. The sanction inquiry program set up in our Bank is operated over SWIFT and EFT transactions. Information screened by sanction lists in sent SWIFT messages and EFT transactions

are received by the Legislation and Compliance Unit on a transaction basis and Unit personnel instantly review these screened transactions.

S.22.1.3: Does the FMI use an internationally recognized communication standard? If it does, which one? How does the FMI align with such standards if it does not use an internationally recognized communication standard?

SWIFT ISO 15022 and ISO 20022 standards are used for not the Check Clearing System, but other services of Takasbank.

S.22.1.4: If the FMI engages in cross-border transactions, how do the FMI's operational standards, processes, and systems utilize or align with internationally recognized communication standards for such transactions?

Currently, no international standard is employed as no transaction is made in currencies other than TRY for Takasbank Check Clearing System.

Takasbank systems disintegrate information in messages, received in SWIFT ISO 15022 and ISO 20022 standards, and forward these to the relevant Takasbank sub-system. For example, equity conditional transfer, USD/EUR cash transfer, and global custody services messages, received by Takasbank through SWIFT channel, is directed to the relevant internal system of Takasbank according to message information and responses generated by these systems are sent back again through SWIFT channel to relevant local custody bank, foreign currency cash correspondent, or foreign value correspondent under our current practices. All incoming and outgoing SWIFT messages can be monitored on internal systems.

S.22.1.5: If no international standard is used, how does the FMI adapt systems that translate or convert message formats and data from international standards to local equivalents (or vice versa)?

SWIFT ISO 15022 and ISO 20022 standards are used for not the Check Clearing System, but other services of Takasbank. Upon the revision made in our systems within the scope of the 2023 March transition of SWIFT, it was started to convert messages in the old format to ISO 20022 format and transmit these to correspondent banks or domestic banks.

***Takasbank Assessment Result for CPMI-IOSCO Principle 22***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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**Principle 23: Disclosure of Rules, Key Procedures and Market Data**

An FMI should have clear and comprehensive rules and procedures and provide sufficient information to enable participants to fully understand the risks, fees, and other material costs they shall incur by participating in the FMI. All relevant rules and fundamental procedures should be disclosed to the public.

**Core Principle 1: The FMI should have clear and comprehensive rules and procedures that are fully disclosed to its participants. The rules and key procedures in question should be disclosed to the public as well.**

*Rules and Procedures*

S.23.1.1: Which documents do the FMI's rules and procedures comprise? How are these rules and procedures disclosed to the participants?

Framework rules applicable to Takasbank Check Clearing System were established by the Regulation on Check Clearing Operations issued by the CBRT. İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, which include detailed explanations on processes and methods, are publicly accessible on Takasbank's website. In addition, the user manuals, the changes and modifications related to the rules and the information forms are announced to the participants via general letters; and these documents are also available on Takasbank website.

S.23.1.2: How does the FMI establish that its rules and procedures are clear and comprehensive?

User manuals, information forms, and any informative details that might be needed by participants in respect of procedures are communicated to the participants by means of general letters and announcements. Framework regulations and System Rules mentioned in 23.1.1 are approved by the CBRT. System Rules are clearly and comprehensively drafted with the contributions of relevant business units, Legislation and Compliance Unit, and Legal Consultancy in consideration of the provisions of the regulation. Issued System Rules are assessed by the Legislation and Compliance Unit in terms of compliance with the legislation.

In addition, in the annual Customer Satisfaction Survey of our Bank, the participants were inquired whether the rules, contracts and all procedures regarding the service received were clear and understandable enough, and no negative response was received.

S.23.1.3: Which information do the FMI's rules and procedures contain in respect of procedures to be followed during non-routine but foreseeable events?

It was stipulated in article 14 titled "Exceptional Circumstances" of the Regulation on Check Clearing Operations that principles and procedures on ensuring continuity of clearing transactions in case of exceptional circumstances, which would disrupt and suspend clearing transactions, would be established in the System Rules.

In this context, article 43 titled “Exceptional Circumstances” of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules stipulates:

- (1) Takasbank is entitled to determine and implement the measures to be taken pursuant to article 14 of the Regulation on Check Clearing Operations in the presence of exceptional circumstances, which are estimated to have adverse impact on check clearing and settlement transactions. Takasbank notifies such measures and practices to the CBRT.
- (2) Based on paragraph 1 of this article, Takasbank may take one or several measures, including but not limited to following, according to the nature of the exceptional circumstance.
  - a) Amendment of settlement duration and terms,
  - b) Interruption of settlement package receiving,
  - c) Temporary restriction of guarantee mechanism contribution withdrawal to certain periods and amounts,
  - ç) Amendment of risk calculation methods and parameters,
  - d) Demanding additional guarantee mechanism contribution.

In addition, it is stated in article 45 titled “System Business Continuity” of the System Rules that System business continuity plan and emergency rules are regulated with “Takasbank Business Continuity Directive” and sub-directives and continuity plans based on the directive, and general policy texts concerning business continuity are announced to participants by means of Takasbank’s website.

S.23.1.4: To whom and how does the FMI disclose the processes to be followed to amend its rules and procedures?

Takasbank states under “Amendment of System Rules” title of the System Rules that it will perform amendments to the Check Clearing System as follows.

“Takasbank is entitled to amend these System Rules. In cases where amendment of System Rules is subject to the approval of competent authorities in accordance with the applicable legislation, amendments are implemented following such approval.

Structural amendments to be made in the System Rules shall be notified to the participants at least fifteen days in advance to ensure that the participants prepare necessary technical or legal infrastructure.”

In this context, amendments to the System Rules are primarily submitted to the Board of Directors of the Bank for approval and then the structural changes are submitted to the CBRT for approval. No structural change, for which CBRT approval is not obtained, shall be applicable. Non-structural changes in system rules are notified to the CBRT within five business days.

S.23.1.5: How does the FMI disclose relevant rules and key procedures to the public?

The user manuals, the changes and modifications related to the rules and the information forms are announced to the participants via general letters; and these documents are also available on Takasbank website.

**Core Principle 2: The FMI should disclose net definitions concerning design and activities of the system, as well as rights and obligations of the FMI and the participants, for the participants to be able to assess the risks to be incurred due to their participation in the FMI.**

S.23.2.1: Which documents contain information on system design and operations? To whom and how does the FMI disclose the system design and operations?

Mutual obligations of Takasbank and participants in respect of the system are regulated by the Regulation on Check Clearing Operations. Such rules were explained in detail in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules. In addition, the participants should review the pre-agreement information form and sign it along with the participant agreement, which contains their obligations in respect of the system.

S.23.2.2: To whom and how does the FMI disclose the level of discretion that it may use in respect of fundamental decisions that would directly impact the operation of the system?

Mutual obligations of Takasbank and participants in respect of the system are regulated by the Regulation on Check Clearing Operations. Takasbank undertakes to establish the necessary systems and build an efficient and reliable technical infrastructure in order to ensure complete execution of the clearing and settlement transactions. İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules provides necessary details in terms of operation of the Check Clearing System, while approval of CBRT is sought, participants are informed about changes by means of a general letter, and related documents are published on the corporate website in case any change occurs.

S.23.2.3: Which information does the FMI provide its participants about their rights, obligations, and risks arising from their participation in the FMI?

Mutual obligations of Takasbank and participants in respect of the Check Clearing System are regulated in İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules that is publicly issued and approved by the CBRT. Takasbank undertakes to establish the necessary systems and build an efficient and reliable technical infrastructure in order to ensure full performance of the Check Clearing System. The participants have to adapt to the system revisions to be made by Takasbank to ensure the continuity of the uninterrupted and secure operation of the system and to participate in the tests that they are invited to.

In addition, the participant agreements, required to be signed by participants in order to be able to execute transactions in the Check Clearing System, clearly delineates the borders of the principles regarding the operation of the Check Clearing System and the rights and obligations of the parties. Furthermore, applicable pre-agreement information forms contain a copy of the agreement and the

issues detailing Takasbank's general transaction terms of indispensable nature; and the candidate participant has to declare that it has examined these forms in a detailed manner and accepted the conditions before signing the participant agreement.

**Core Principle 3: The FMI should offer all necessary and appropriate documents and trainings to ensure that its participants understand the FMI's rules and procedures, and the risks that they shall be exposed to due to their participation in the FMI.**

S.23.3.1: How does the FMI ensure that its participants understand the FMI's rules and procedures, and the risks that they shall be exposed to due to their participation in the FMI?

In addition to participant agreements and pre-participation agreement information forms, İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules, containing rules on the Check Clearing System, also provides detailed information on authorities and responsibilities of participants, and these documents are available on Takasbank's website. In addition, changes and user manuals to be applicable to rules or operation of the Check Clearing System are announced to the participants by means of a general letter.

S.23.3.2: Is there evidence indicating that the abovementioned methods ensure that participants understand the FMI's rules and procedures, and the risks that they shall be exposed to due to their participation in the FMI?

The participant agreements, which are required to be signed, clearly delineates the borders of the principles regarding the operation of the Check Clearing System and the rights and obligations of the parties. Furthermore pre-agreement information forms applicable to the Check Clearing System contain a copy of the agreement and the issues detailing Takasbank's general transaction terms of indispensable nature; and the candidate participant has to declare that it has examined these forms in a detailed manner and accepted the conditions before signing the participation agreement.

S.23.3.3: Which corrective actions does the FMI take when it identifies a participant that does not understand the FMI's rules and procedures, and the risks encountered due to participation in FMI?

Article 44 titled "Disciplinary Provisions" of İstanbul Takas ve Saklama Bankası A.Ş. Check Clearing, Clearing, Settlement, and Risk Management System Rules stipulates that, in addition to the provisions in System Rules, disciplinary provisions in article 17 of the Regulation on Check Clearing Operations (Regulation) shall be applicable to participants that do not observe the obligations specified in the system rules. In this context, pursuant to the duties assigned to it under the Regulation, Takasbank may make necessary decisions, including partial or full rejection of participant checks from clearing for a period to be deemed suitable, with regard to the participants;

- That do not observe the Regulation and regulations issued by Takasbank,
- That pose risks that have adverse impact on clearing and settlement transactions and endanger safe and uninterrupted operation of the System,
- That do not fulfill their liabilities, arising as a result of daily transactions, at the specified time and thus delay the settlement of transactions,

- That fail to fulfill the measures taken pursuant to article 15 of the Regulation and article 43 of the System Rules due to exceptional circumstances,
- That fail to submit information and documents required by Takasbank in respect of their affairs and transactions, and to make demanded adjustments or changes within the scope of the Regulation.

Participants, who are temporarily or permanently banned from making transactions, are notified to CBRT.

Although disciplinary provisions are given in detail in article 44 of the System Rules, due diligence can be made and participants may be warned as necessary before imposing a disciplinary punishment on participants, who are concluded not to have completely understood the participation conditions or to have misinterpreted the participation conditions.

**Core Principle 4: The FMI should publicly disclose the fees and valid discount policies at the level of individual services that it offers. The FMI should provide clear definitions regarding paid services for comparison purposes.**

S.23.4.1: Does the FMI publicly disclose the fees and valid discount policies at the level of individual services that it offers? If it does, how is the disclosure made?

The fees and commissions applicable for the services provided by Takasbank are available on its website.

S.23.4.2: Does the FMI inform its participants and the public timely about changes in services and fees? If so, how is the information provided?

If fees and commissions valid in respect of services offered by Takasbank are updated, participants are informed by means of a general letter before the validity date of the new tariff.

S.23.4.3: Does the FMI make any disclosure regarding its paid services? Do these disclosures enable comparison between similar FMIs?

In determining fee tariffs, the necessary comparisons are made with the domestic and foreign financial market infrastructures of similar nature, and they enter into force upon the approval of the Bank's Board of Directors. Therefore, it is required to disclose the reasons of the changes made in the fees and commissions to the Board of Directors.

In addition, the change in the fee tariff and its justification are sent to the CBRT in writing for information purposes.

S.23.4.4: Does the FMI disclose information on its technology and communication procedures or other factors that would impact operating costs of the FMI?

Takasbank has a wide range of services. Changes to be made in respect of every service and rules and procedures on implementation of these are announced to participants by means of general

letters and made available on the website. In addition, the projects implemented/to be implemented during a particular year and the added value details of the projects are shared in detail in the integrated annual report pertaining to that year. The Integrated Activity Reports are also published on Takasbank website.

When the Bank decides to change the fee tariff in relation to any of its services provided, Takasbank Service-Based Profitability Study is used as a reference. This study is repeated at least on a quarterly basis and the incomes and expenses related to each service are compared. This study provides an important source of data as to whether a service offered can meet the costs and expenses associated with such service or not.

A justified document is prepared and submitted to the Board of Directors in respect of the fees to be determined in consideration of these data. In addition, conditions for changes to be made in check clearing activity fees were stipulated with the provision “Fees may be increased by Takasbank every year up to the Producer Price Index (PPI) rate” in article 42 titled “Fees and commissions” of the System Rules.

Takasbank Check Clearing System fees were increased most recently in January 2024. As the increase rate was determined, it was informed to the Board of Directors that many developments and additional infrastructure changes in terms of both personnel and in the technical sense to perform the provided service without interruption and fulfill assumed functions in full and, in this context, an increase was necessary in the check clearing commission for 2024 to maintain smooth system functionality and to cover incurred losses. October 2023 PPI was announced by Turkish Statistical Institute as 58.46% and it was decided to use the PPI rate as the check clearing fee increase rate pursuant to the resolution made in our Bank’s Board of Directors meeting no. 465 of 24/11/2023.

Changes in fee increases are announced to the participants via general letters with justification and the CBRT is informed with a letter.

**Core Principle 5: The FMI should regularly complete and publicly disclose the “Disclosure framework” prepared by CPMI-IOSCO for financial market infrastructures. The FMI should at least disclose the essential data about transaction volumes and amounts.**

S.23.5.1: When is the last time the FMI completed the “Disclosure Framework for Financial Market Infrastructures”, prepared by CPMI-IOSCO? How often is this study updated? Is this study updated to follow important changes in the FMI or its framework and at least once in every 2 years?

The study on “Disclosure Framework for Financial Market Infrastructures”, which should be prepared to assess compliance with CPMI-IOSCO principles concerning the Check Clearing System operated by Takasbank, was completed in January 2024 and published on the website to ensure uniformity with the responses to “Questions on Key Matters for Principles Concerning Financial Market Infrastructures” sent by the CBRT.

S.23.5.2: Which quantitative data does the FMI disclose to the public and how often is this information updated?



In order to ensure transparency in the check clearing services provided by Takasbank, the following information is disclosed to the participants and the public and updated periodically:

- Regarding business rules;
  - Principles for participation
  - Principles for clearing and settlement transactions
  - Principles for collaterals and guarantee mechanism contribution
  - Default management rules
  - Guarantee mechanism management rules
  - Assets accepted as guarantee mechanism contribution and valuation coefficients,

are established with the System Rules and published on Takasbank’s website. In addition, changes are announced to the participants with general letters following every change.

The following statistical data, given in “Statistics” section of Takasbank’s corporate website, are updated and published monthly.

- Check Clearing monthly clearing transactions
- Check Clearing monthly dishonored check number-amount ratios

In addition, the fee tariff for Check Clearing Services is reviewed every year, fee changes are announced to participants with a general letter and published on the Bank’s corporate website upon approval by the Board of Directors.

With regard to the data to be disclosed to public, due attention is paid to the protection of trade secrets.

S.23.5.3: What other information does the FMI disclose to the public?

In addition to the information specified in 23.5.2, any supplementary documents, considered to be supporting the participants with regard to the functioning and mechanism of the system, are published on the corporate website.

S.23.5.4: How does the FMI disclose such information to the public? In which languages are the disclosures made?

Disclosures are made both in Turkish and English languages over the Takasbank website.

***Takasbank Assessment Result for CPMI-IOSCO Principle 23***

<b>Observed</b> <input checked="" type="checkbox"/>	<b>Broadly Observed</b> <input type="checkbox"/>	<b>Partly Observed</b> <input type="checkbox"/>	<b>Not Observed</b> <input type="checkbox"/>	<b>Not Applicable</b> <input type="checkbox"/>
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#### IV. CONCLUSION

In the assessment we made as Takasbank to determine the compliance level of the Check Clearing System with the basic principles published by CPMI-IOSCO in April 2012;

- it was concluded that basic principles no. 6, 10, 11, 12, 14, 19, 20, and 24 on Central Counterparty (CCP), Central Securities Depository (CSD), Trade Repository (TR) and/or Securities Settlement System (SSS) operations were “not applicable”,
- and we “observed” all other principles on Payment Systems (PS).

Summary assessment table by principles is given below.

Assessment Category	Principle
Observed	1, 2, 3, 4, 5, 7, 8, 13, 15, 16, 17, 18, 21, 22, 23
Broadly Observed	-
Partly Observed	9
Not Observed	-
Not Applicable	6, 10, 11,12, 14, 19, 20, 24