

Istanbul Clearing, Settlement and Custody Bank Inc. (Takasbank) Company Profile & CCP Service

European Association of CCP Clearing Houses
General Assembly
October 7, 2014
Vienna

Company Profile

History & Profile

A sector-specific investment bank providing post-trade securities services as well as banking facilities for the Turkish Capital Market participants

Milestones



Financial Highlights

Million EURO	2014 Q2	2013 Q4	2012 Q4	2011 Q4	2010 Q4	2009 Q4
Total Assets	1,623	1,907	1,566	964	732	696
Equity	258	201	141	126	145	131

Dedicated and Committed Capital for CCP Default Waterfalls

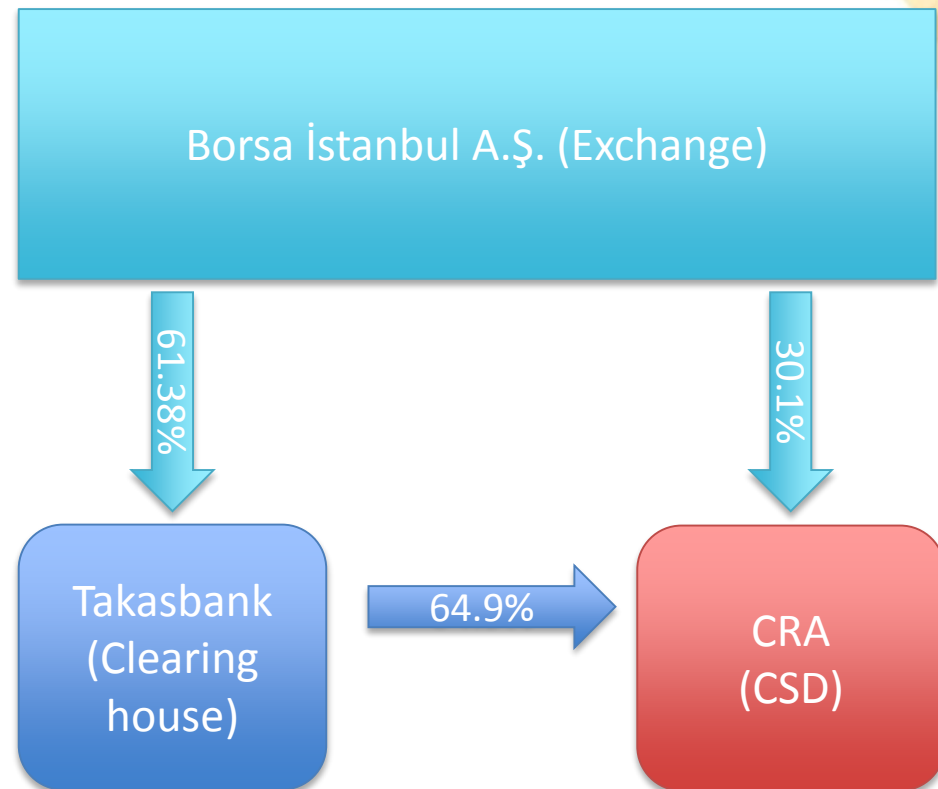
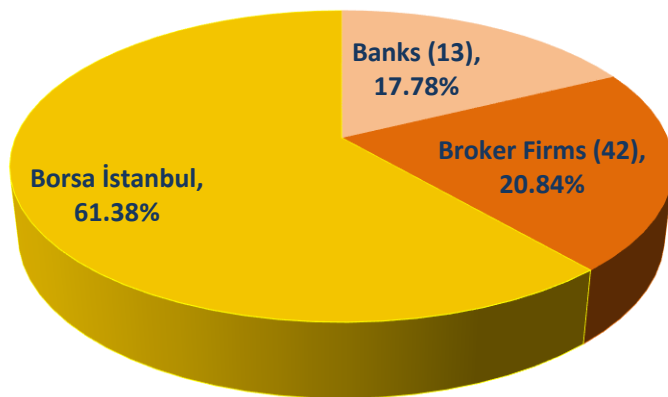
Million EURO (2014 Q3)	Dedicated Capital	Committed Capital
Borsa Istanbul Futures and Options Market	15	74
Takasbank Securities Lending Market	0.2	1

Turkish Capital Market Structure

- ❖ **Borsa İstanbul A.Ş. – Exchange**
- ❖ **Takasbank – Clearing House**
- ❖ **Central Registry Agency (CRA) – CSD for equities and corporate bonds and bills**

Takasbank Shareholder Structure

Besides Borsa İstanbul, 13 banks and 42 broker firms are shareholder's of Takasbank.



Regulatory Environment

Capital Markets Board

- Capital Market Law Nr. 6362

Banking Regulation and Supervision Agency

- Banking Law Nr. 5411

Central Bank of the Republic of Turkey

- The Law on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions Nr. 6493

General Regulation on the Establishment and Operating Principles of Central Clearing and Settlement Institutions

Istanbul Settlement and Custody Bank Inc. Central Clearing and Settlement Regulation

Istanbul Settlement and Custody Bank Inc. Central Counterparty Regulation (Takasbank CCP Regulation)

Market Directives and Procedures



Services

CCP Cleared Markets

- Borsa Istanbul Listed Derivatives Market
- Takasbank Securities Lending Market

Non-CCP Cleared Markets

- Borsa Istanbul Cash Equities Market
- Borsa Istanbul Fixed Income Market

Market Operations

- Takasbank Securities Lending Market
- Takasbank Money Market

Banking Services

- Treasury Operations
- CRA Cash Correspondence
- Cash Credit

Forex Services

- Forex Trade Repository
- Collateral Depository

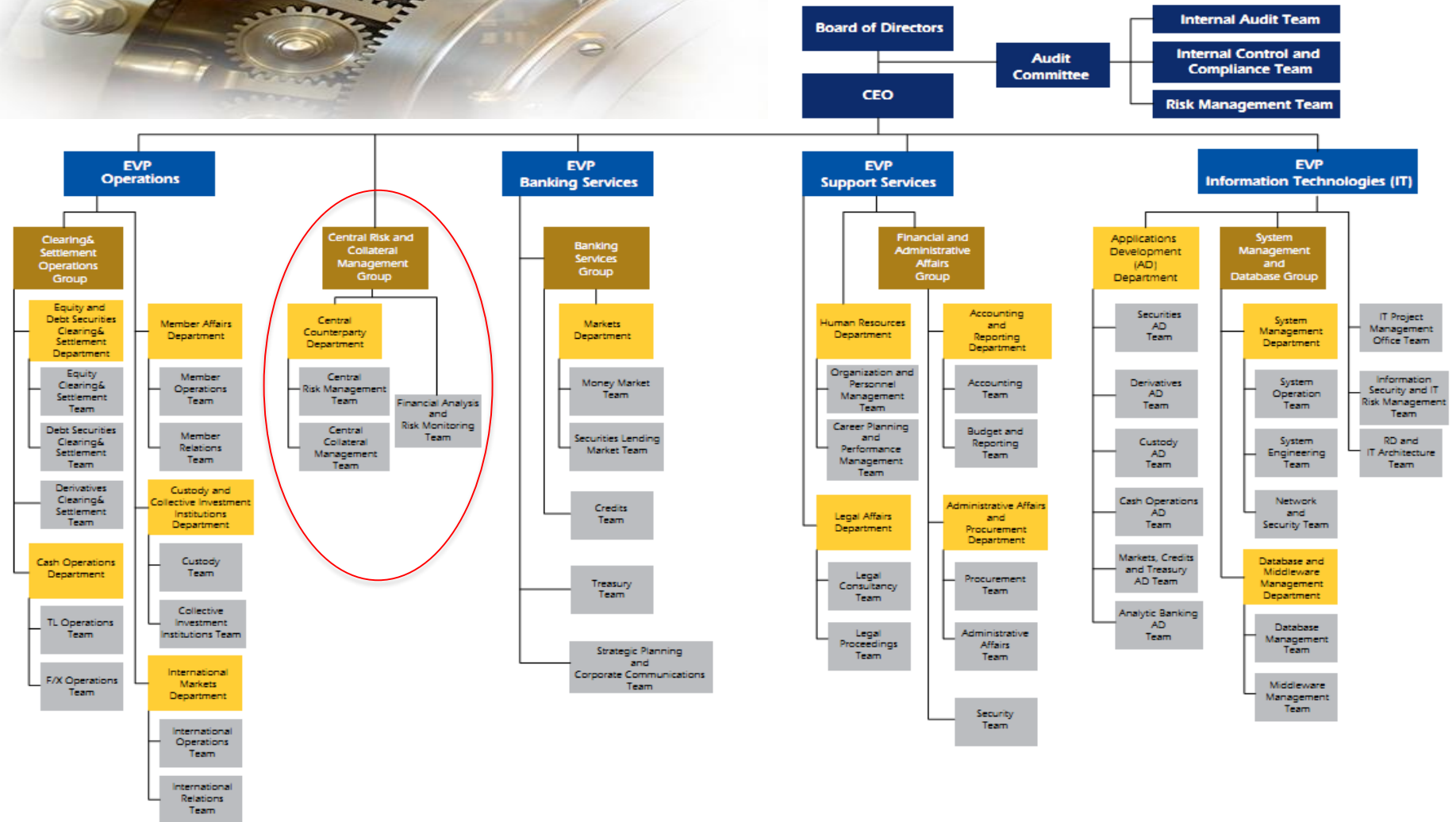
Custody

- Global Custody
- Local Custody

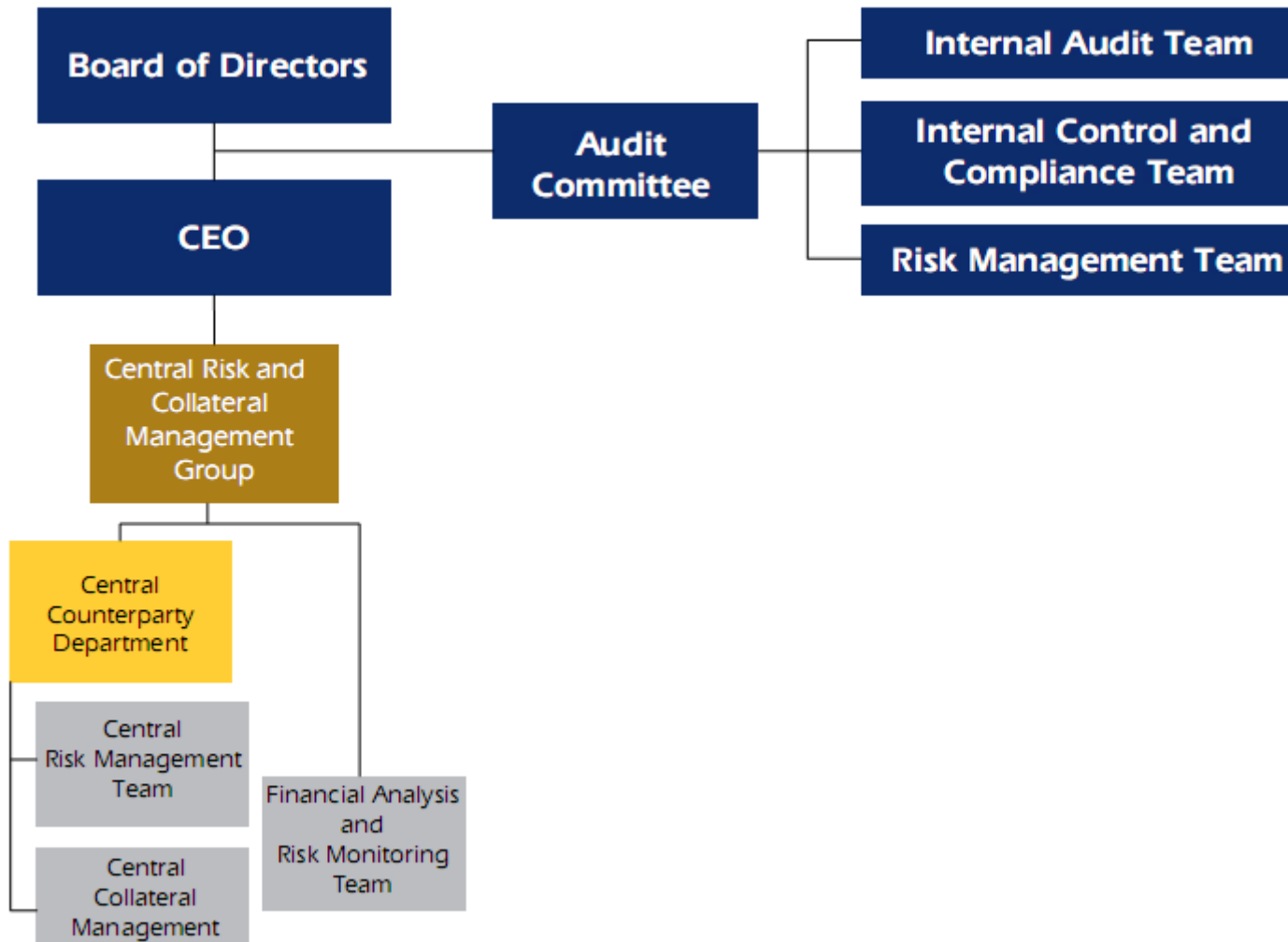
Numbering

- ISIN Allocation
- LEI Allocation

Organization Chart



Organization Chart



International Memberships and Committee Works



ISO TC68/SC4 Securities Standardization Committee



ANNA- Association of National Numbering Agencies



SWIFT



FEAS- Federation of Euro-Asian Stock Exchanges



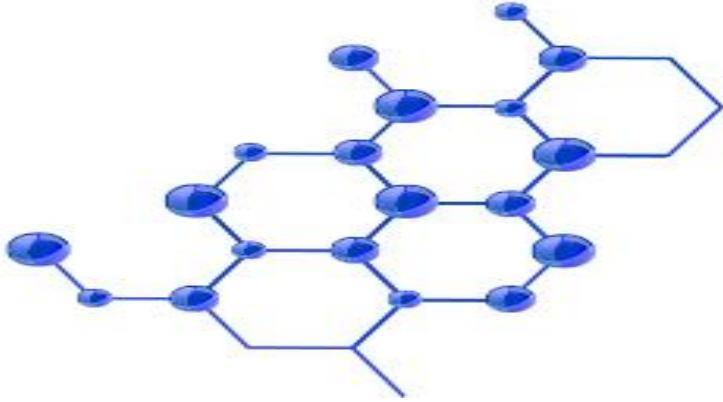
OIC- Organization of Islamic Conference Member States' Stock Exchanges Forum



IIF- Institute of International Finance



ISSA- International Securities Services Association



IT Security and Business Continuity



Efficient business continuity plan (BCP)

- ❖ BCP contains arrangements to return to previous data, back-up of all transactions and other data.
- ❖ BCP is developed to handle disaster situations. 2 disaster recovery sites
 - Disaster Recovery Center in another city far away from Istanbul
 - Disaster Recovery Data Replication Center in Istanbul
- ❖ A crisis committee exists which has been determined to decide on alternative procedures, software, hardware and back up requirements.
- ❖ No key system has failed during the previous years.
- ❖ Application for ISO 22301 (Business Continuity Management Systems) is planned for 2014

IT Security

- ❖ On July 2014 Takasbank acquired ISO 27001 (Information Security Management System) certificate.



Operational Efficiency

NASDAQ OMX®

Renewing Clearing, Risk and Settlement Infrastructure

- ❖ **NASDAQ OMX and Borsa Istanbul have signed Strategic Partnership in December 2013**
- ❖ Borsa Istanbul will integrate and operate NASDAQ OMX's suite of market technologies for trading, clearing, market surveillance and risk management, covering all asset classes including energy contracts.
- ❖ Takasbank will renew clearing, risk and settlement software technology with Nasdaq OMX
 - Phase1: Cash Equities
 - Phase2: Derivatives, Fixed Income, Precious Metals, OTC Derivatives

Takasbank

CCP Service



Takasbank CCP Model

Regulatory Framework

- ❖ Turkey Capital Market Law Nr. 6362
- ❖ General Regulation on the Establishment and the Operating Principles of Central Clearing Institutions
- ❖ Istanbul Settlement and Custody Bank Inc. Central Counterparty Regulation (Takasbank CCP Regulation)
 - Market Directives (approved by CMB) and Market Procedures

International Principles and Regulations

- ❖ CPSS-IOSCO PFMI
- ❖ EMIR (648/2012)
 - EMIR Supplementary (152/2013) for capital requirements and (153/2013) for technical standards for CCPs

Reference

«Art 5/10 In any matters not expressly regulated by this Regulation, the capital market legislation and the other relevant legislation, Takasbank takes into consideration the international principles and regulations related to the CCP practice...»

Takasbank CCP Model

Legal Basis

Member
admission
requirements

Margins and
Collateral

Default Fund

Segregation
and Portability

Default
Management

Risk Controls

Takasbank
Capital

Takasbank

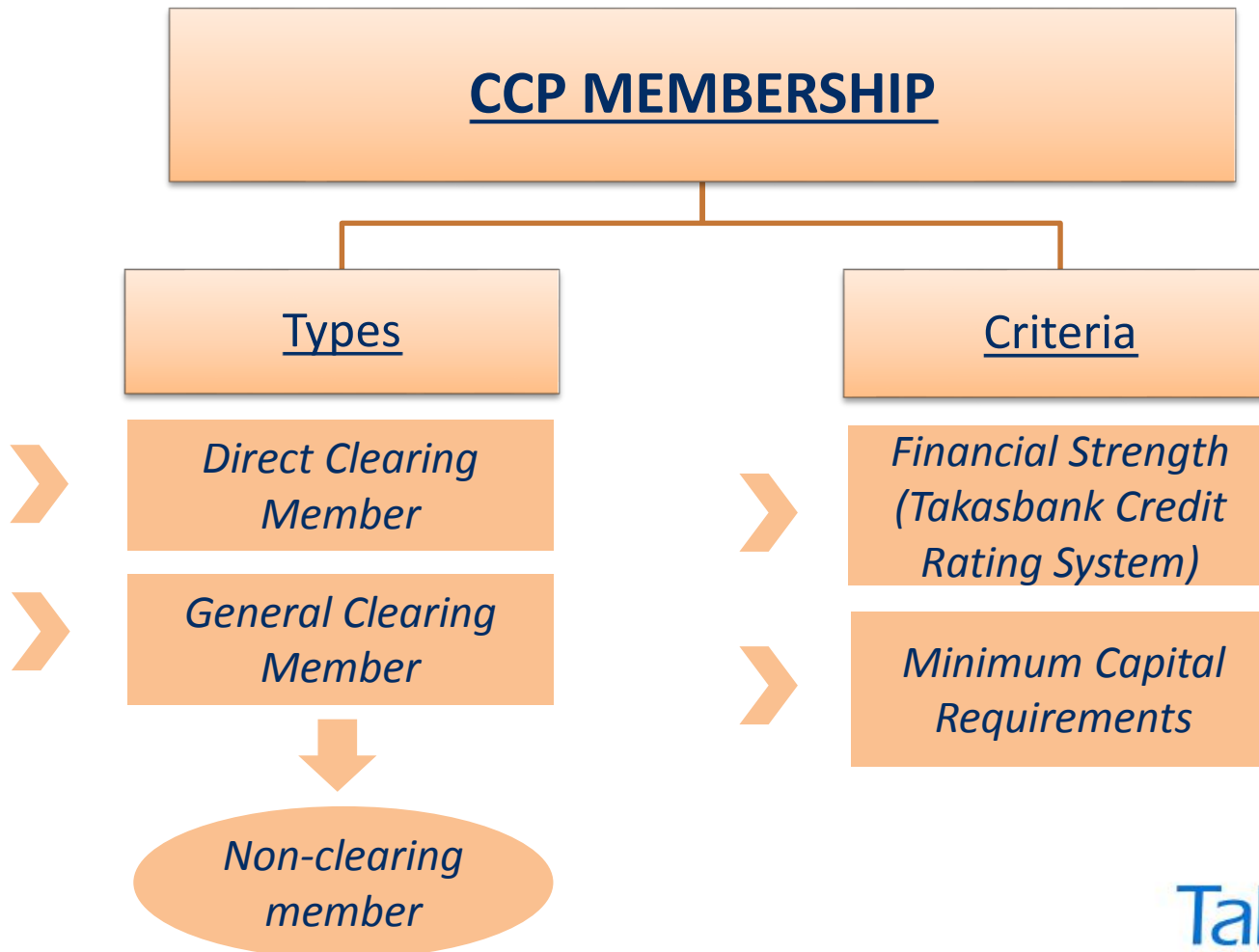


Takasbank CCP Model

Legal Basis

ISSUE	RELEVANT ARTICLES IN CAPITAL MARKET LAW
Central Clearing Institutions	Art. 77
Central Counterparty	Art. 78
Settlement finality and CCP's rights over collaterals	Art. 79
Protection of customer assets	Art. 46/4, 73/2

Takasbank CCP Model





Takasbank CCP Model

Margining Rules

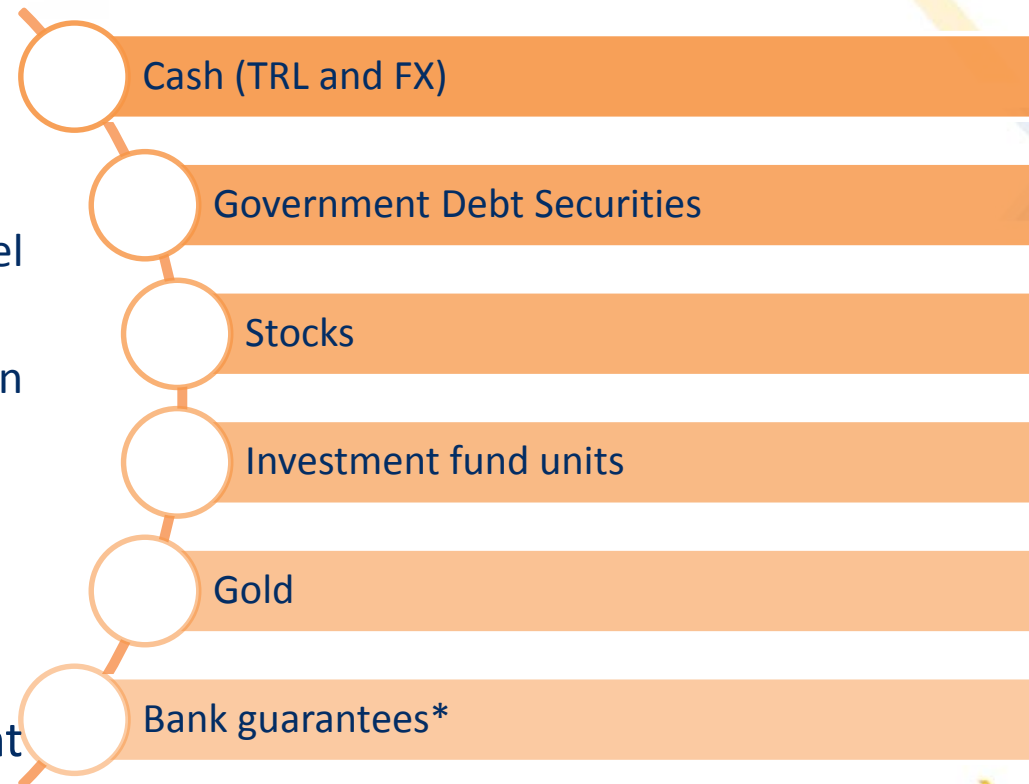
- ❖ Initial margin
 - Minimum %99 confidence level (%99.5 in VIOP and TSLM)
 - Minimum 2 days liquidation period
 - One-year look-back period
- ❖ Variation margin
- ❖ Portfolio margining
 - SPAN is used for VIOP



Takasbank CCP Model

Eligible Collaterals & Evaluation Rules

- ❖ Haircut Calculation
 - Minimum 99% confidence level (currently 99.9%)
 - Minimum 2 days liquidation period
- ❖ Daily valuation of collaterals
- ❖ Theoretical price calculations
- ❖ Composition limits
- ❖ Minimum cash requirement (VIOP 50%, TSLM 60%)



* (not accepted for CCP cleared markets)

A photograph showing several stacks of coins (gold and silver) placed on a surface with a grid pattern, possibly a financial chart. A line graph is visible in the background, showing a fluctuating line that ends with an upward-pointing arrow.

Takasbank CCP Model

Default Fund

- ❖ Will be maintained for each market
- ❖ For potential risks above the margin level (up to %99.9 confidence level)
- ❖ Size of the Default fund > $\text{Max}(\text{Largest Exposure}, \text{Second Largest Exposure} + \text{Third Largest Exposure})$
- ❖ Members deposit
 - Fixed contribution
 - Variable contribution (proportional to the risks)
- ❖ Replenishment of default fund by the non-defaulting members
 - Limited (12 times/year – VIOP, 4 times/year – TSLM)

Takasbank CCP Model



Segregation

- ❖ Collaterals should be monitored separately from the assets of Takasbank – *Capital Market Law Art. 78/7, CCP Regulation Art. 20/1*
- ❖ «Customer positions and collateral should be segregated from the members' own positions and collateral»
 - Omnibus vs. Individual
 - Individual segregation obligation for certain markets (Eg. Derivatives)
 - The collaterals posted for the omnibus accounts shall be provided from the collaterals which belong to the member itself or on which member holds power of disposition

Takasbank CCP Model



Portability

- ❖ Pre-default:
 - Porting of collateral and positions is possible with the instruction of both transferring and transferee clearing members if Takasbank approves
- ❖ Post-default:
 - Porting of collateral and positions is possible for individually segregated accounts if a back up member is determined before default or a back up member is found after default



Takasbank CCP Model

Default Management (Waterfall)

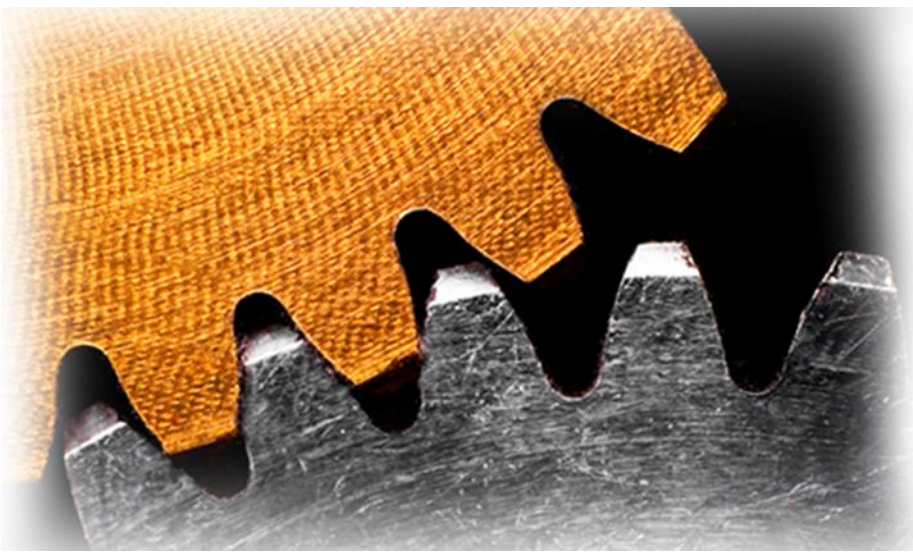
- Collateral of the defaulted member and its defaulted customers
- Default fund contribution of the defaulted member
- Compensations to be made from insurance policies, if any
- Takasbank's dedicated capital for covered risks (skin in the game)
- Default fund contributions of other members (capped)
- Additional default fund contributions of other members
- Remaining capital of Takasbank (up to the regulatory capital)



Takasbank CCP Model

Default Management

- ❖ Closing out positions
- ❖ Porting customer positions and collateral
- ❖ Auctions for the positions of the defaulted member
- ❖ Variation margin haircutting under extraordinary circumstances



Takasbank CCP Model

Risk Controls

- ❖ Stress tests (stress tests, reverse stress tests, sensitivity analysis)
- ❖ Back tests
- ❖ Liquidity risk controls
- ❖ Credit and concentration risk controls



Takasbank CCP Model

Takasbank's Dedicated & Committed Capital

A

Minimum capital requirement under banking regulation for credit, market and operational risks (Basel 2 Pillar One)

B

Internal capital allocation for business risks and restructuring costs (75% of the previous year's operational expenses related to CCP services)

C

Dedicated capital of Takasbank for CCP services (for covered risks):
(25% of A+B)

D

Commitment made from the remaining capital of Takasbank: (Regulatory Capital - A - B - C - Other Internal Capital Allocations under Basel 2 Pillar Two)



CCP Markets

(as of September 2014)

Borsa Istanbul Listed Derivatives Market (VIOP)

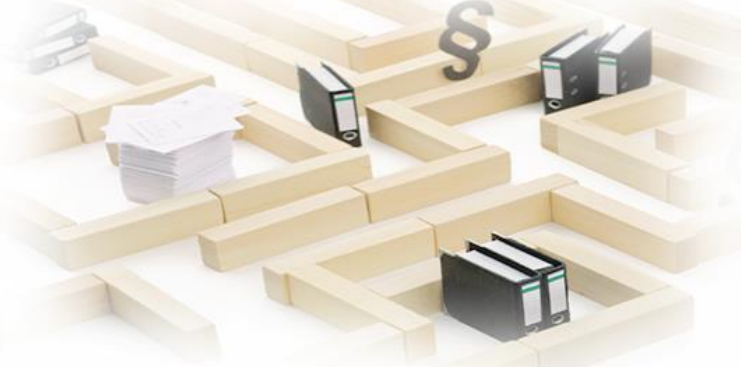
- ❖ Options and Futures
 - Index, equity, fx, commodity, energy, precious metals
- ❖ Number of Clearing members: **81**
- ❖ Average Daily volume (August 2014): **€ 1,417 mio**
- ❖ Total initial margin*: **€ 171 mio**
- ❖ Total collateral*: **€ 574 mio**
- ❖ Number of accounts*: **93,317**
- ❖ Size of the default fund*: **€ 40 mio**
- ❖ Takasbank's dedicated capital* (skin in the game): **€ 15 mio**
- ❖ Takasbank's committed capital*: **€ 74 mio**

Takasbank Securities Lending Market (TSLM)

- ❖ Equities traded in Borsa Istanbul
- ❖ Number of Clearing members: **73**
- ❖ Average Daily volume (August 2014): **€ 9 mio**
- ❖ Total initial margin*: **€ 16 mio**
- ❖ Total collateral*: **€ 17 mio**
- ❖ Number of accounts*: **224**
- ❖ Size of the default fund*: **€ 1 mio**
- ❖ Takasbank's dedicated capital* (skin in the game): **€ 0.2 mio**
- ❖ Takasbank's committed capital*: **€ 1 mio**

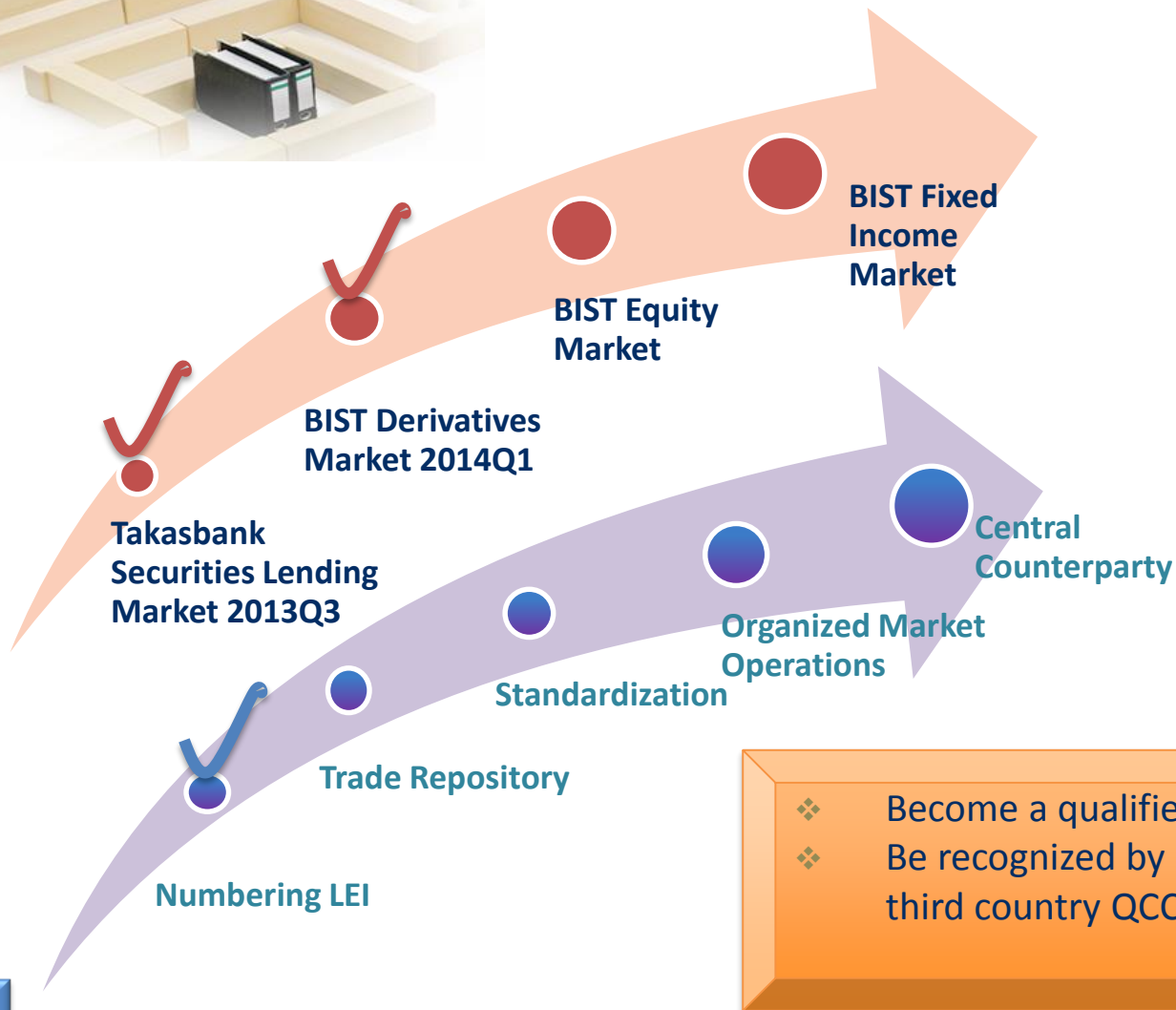
* As of 26/09/2014

CCP Roadmap



**ORGANIZED
MARKETS**

**OTC
MARKETS**



Takasbank

Thank You



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