



BM&FBOVESPA

The New Exchange



BM&FBOVESPA Risk Management Framework

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1 OVERVIEW – THE RISK MANAGEMENT STRUCTURE

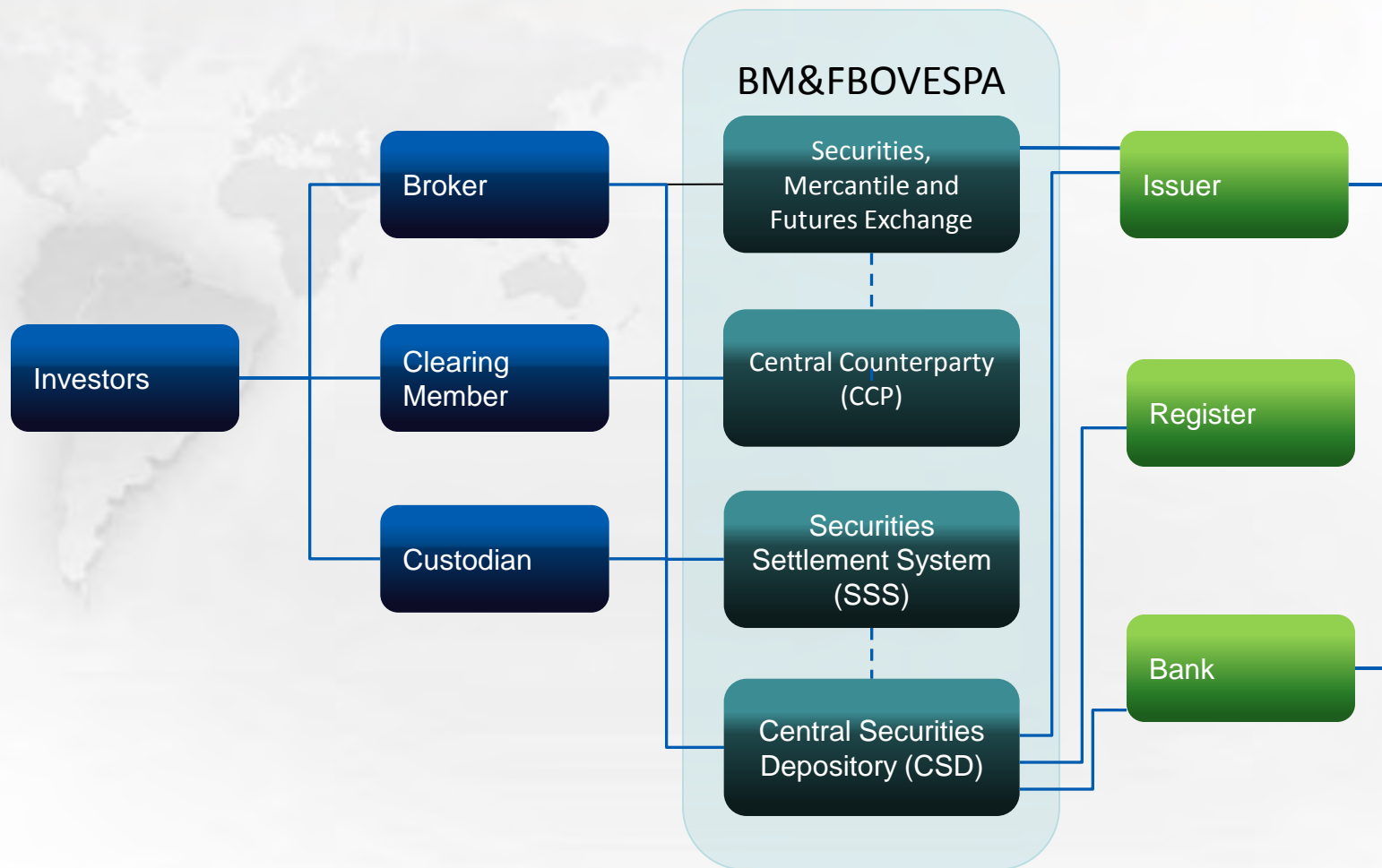
2 BRAZILIAN CAPITAL AND FINANCIAL MARKETS

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4 BM&FBOVESPA RISK MANAGEMENT GOVERNANCE

Comments on the Current Global Crisis

5 FUTURE TRENDS



Environment

Brazilian Financial and Capital Markets

- Sound legal framework;
- Beneficiary owner model;
- Regulatory framework: BCB, CVM and SROs
- New payments system (2002).

Tools

BM&FBOVESPA Risk Management Framework

- Comprehensive risk management analysis;
- Individual collateral accounts;
- Intraday risk assessment (near time/real time);
- Liquidity risk management;
- Credit risk management.

Strategy

BM&FBOVESPA Risk Management Governance

- Strong risk management culture;
- In-house expertise;
- Risk Management Department;
- BM&FBOVESPA Risk Committee.

RESILIENT ENVIRONMENT

Sound Legal Framework

- CCP activities (e.g. multilateral netting) are covered by the new payments systems law (law 10.214/2002);
- Special protection for collateral posted at CCPs.

Beneficiary Owner Model

- The final beneficiary of every transaction has to be fully identified;
- Predefined timeframes for trade allocation (intraday, T+0, T+1 – maximum);
- OTC trades involving FIs have to be registered in a CR.

Regulatory Framework

- The Brazilian Central Bank (BCB) regulates all aspects pertaining risk management (CCP), clearing and settlement activities;
- The Securities Commission (CVM) regulates all aspects pertaining exchange and organized OTC markets

New Payments System

- Launched in 2002, implemented a new RTGS system;
- Clearinghouses settle their cash obligations using central bank money;
- Clearinghouses settle their securities obligations directly at the CSDs.



Comprehensive Risk Analysis

- The final beneficiary model allows the clearing house to assess individual risk profiles;
- Margin calls at the level of the individual account;
- Economic groups acting in concert are also analyzed (intra-clearing and inter-clearing).

Individual Collateral Accounts

- Customer collateral is segregated in individual accounts at the clearinghouses;
- The clearinghouses have securities accounts directly at the CSDs;
- Allows true individual portfolio risk assessment.

Intraday Risk Assessment

- The final beneficiary model coupled with intraday allocation procedures allows for a very accurate intraday risk assessment;
- Intraday margin calls reflect changes in risk profiles as well as intraday volatility (intraday MtM).

Liquidity and Credit Risk Management

- Liquidity facilities with private banks and BM&F Bank (BM&FBOVESPA wholly owned subsidiary);
- Continuous analysis of credit risk bearing collateral (CDs and LCs);
- Participant credit soundness assessment.

Market and Counterparty Risk

- CCP risk management functions (margin calculation, position limits, individual risk assessment);
- Intraday risk monitoring, including market conditions;
- OTC trades registration;
- Securities lending program.

Collateral Management

- Collateral management services (deposits, withdraws, payments);
- Pricing and haircut definitions;
- Concentration limits (credit risk, liquidity risk).

Credit Risk

- Credit limits for issuers of collateral;
- Participant credit risk assessment;
- Economic groups and individual participant special monitoring activities.

Risk Models and Quantitative Analysis

- Risk assessment models definition;
- Quantitative analysis tools;
- Research activities.

Responsibilities

- Assessment of market and macroeconomic environment;
- Definition of stress scenarios for margin calculation purposes;
- Definition of price and position limits;
- Other risk management issues.

Participants

- BM&FBOVESPA top officers (clearing, settlement, risk management, product development, operations, legal);
- Technical staff (non-voting members);
- Weekly meetings (extraordinary meetings whenever deemed as necessary);

Definition of Stress Scenarios

- Macroeconomic outlook (global and local);
- Quantitative analysis (EVT models, RNDs, implied volatilities, historical simulations);
- Market survey.

CLEARINGHOUSE INTEGRATION

HIGH FREQUENCY TRADING

ENHANCED OTC SERVICES



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