



BANCO CENTRAL DO BRASIL

Oversight of Systemically Important Systems

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Annual Payments Week – 2008

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Agenda

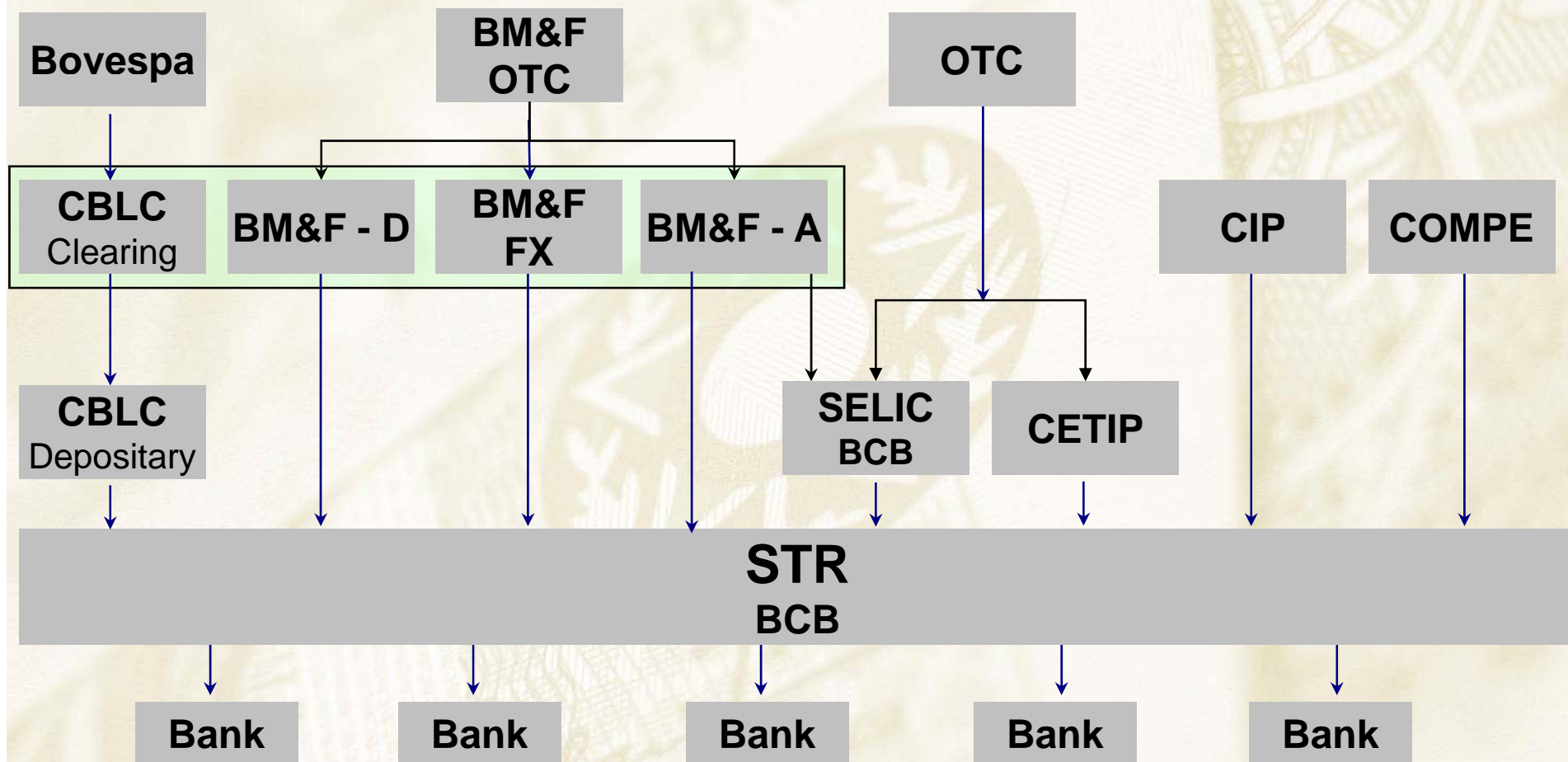
- Introduction
- Systemically Important Payment Systems
- Oversight Tools
- Current developments

Introduction

Oversight objectives

- The BCB has an interest in the smooth functioning of payment systems and instruments
- Oversight aims at
 - preventing systemic risk
 - promoting efficiency of payment systems and instruments
 - safeguarding the transmission channel for monetary policy

Introduction – Brazilian Payment and Settlement Systems

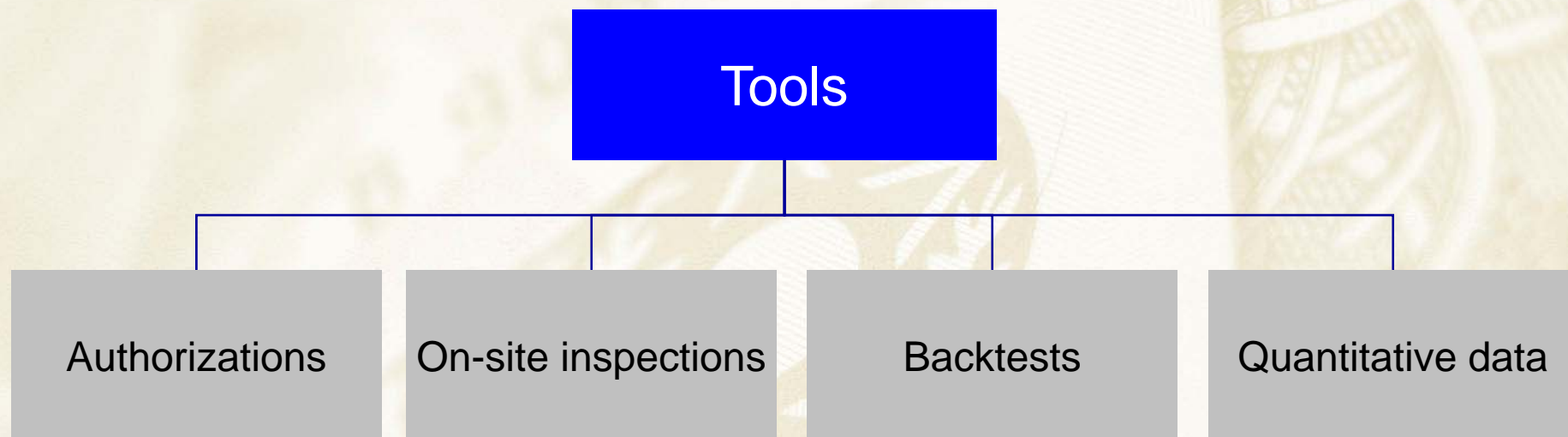


Systemically Important Payment Systems (SIPS)

- Use of *Core Principles for Systemically Important Payment Systems* as a guide for national payment system development
- Quantitative criteria for classification of SIPS
 - Value of individual transaction
 - Value of daily turnover
- Legislation and facilities for mitigating risk

Risk	Legislation and devices
Legal risk	Specific legislation supporting: finality, netting, collateralized transaction etc
Liquidity risk	Intraday repurchase agreements (government bonds)
Credit risk	Use of central bank money
Intraday finality	Real-time gross settlement system (STR)

Oversight Tools – Overview



Oversight Tools – Authorizations

Must be submitted for the authorization of the Banco Central do Brasil

- The creation of new payment and settlement systems

- Any change in existing payment and settlement systems involving the following aspects:
 - The safety and integrity of the payment and settlement system
 - The procedures for settling securities and derivatives operations or fund's transfer
 - The credit and liquidity risk management

Objective:

Verify the compliance with principles and the legal framework of payment and settlement systems

Oversight Tools – On-site Inspection

- Partnership with the banking supervision team
- Focused on the IT systems responsible for the risk management, clearing and settlement processes
- Auditing of:
 - Internal controls
 - Information security procedures
 - Business continuity planning
 - Third-party services providers

Oversight Tools – Backtests – Objectives

- **Assessment of credit and liquidity risk management procedures for the central counterparties**

Counterparty credit risk

- Risk of loss from a participant's default

Liquidity risk

- Risk faced by clearing as it must fulfill its payment obligations to non-defaulting participants on schedule

Oversight Tools – Backtests – Description

Backtest Credit Risk

Simulate the costs associated with the close-out of default participant's portfolio at prevailing market prices

Calculate the risk (cost) not covered by the default participant collateral

Compare this risk with the total CCP's financial resources

Backtest Liquidity Risk

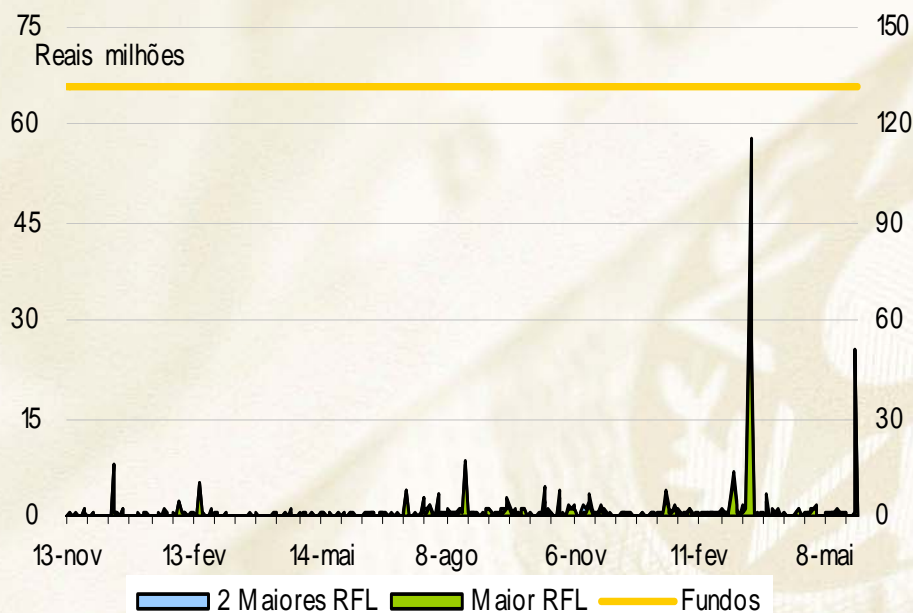
Calculate the total amount of CCP's liquid financial resources and credit lines

Calculate the highest debit position among the participants

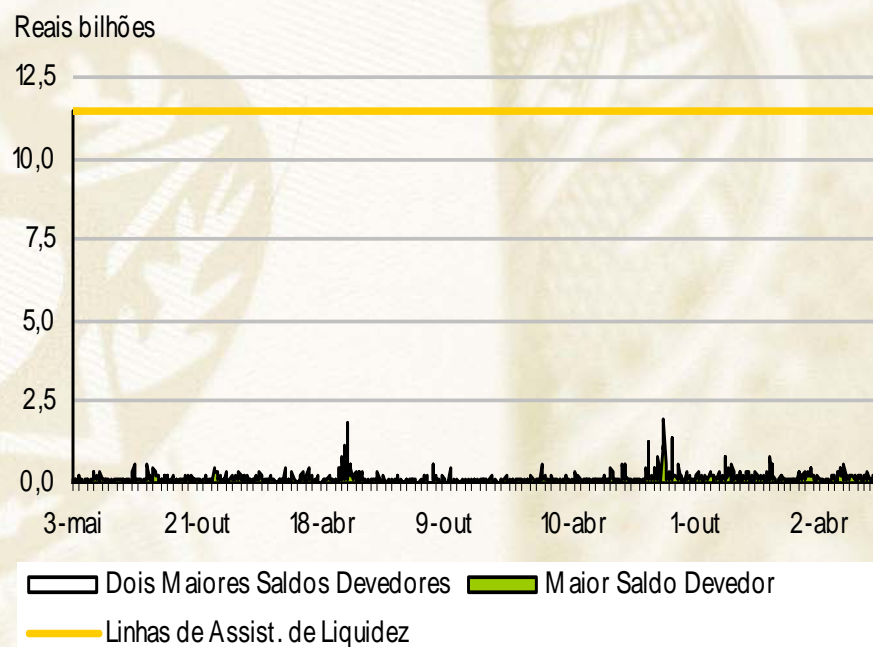
Compare the highest debit position against CCP's liquid resources and credit lines

Oversight Tools – Backtests – Examples

Backtest Counterparty Credit Risk



Backtest Liquidity Risk



R\$/USD: 1,73

Oversight Tools – Quantitative Data

- **General data:** volume and value of payments and operations, intraday payments profile, etc
- **Efficiency:** netting ratio, average queue time of payments (RTGS), etc
- **Operational risk:** ratios of operational reliability, operational failures statistics, etc.

Oversight Tools – Oversight Report – Example



- Bulletin – Monthly Report
- Financial Stability Report – Half-year

Current developments – I

- Backtests improvements

Financial Risks

Credit risk

Liquidity risk

Normal market conditions

Stressed market conditions

Compliance with RCCP 3, 4 and 5

Current developments – II

- Operational Risk

**Business
Continuity
Management**



- Development of an assessment framework for Business Continuity Plans
- Tests results review

**Operational
Reliability**



- Development of operational reliability ratios for the main macro processes of a deferred net settlement system
 - acceptance
 - clearing
 - settlement

Current developments – III

- Improvement of regulatory framework

Regulation Improvements

Governance

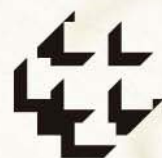
- Segregation of risk management and non-risk management areas
- Ownership limits

Business continuity management

- Minimum requirements
- Accountability

Recommendations

- Update to international best practices



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