Oversight of Systemically Important Systems

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Agenda

- Introduction
- Oversight Tools
- Ongoing and Next Steps
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

Financial Institutions

Bovespa

BM&F OTC

BM&F - D

BM&F FX

BM&F - A

CIP

COMPE

Tecban

CBLC Clearing

CBLC Depositary

SELIC

CETIP

STR

Bank

Bank

Bank

Bank

Bank

Bank
Oversight Tools – Overview

- Authorizations
- On-site inspections
- Backtests
- Quantitative data
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 transferring funds
  - 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 central counterparties credit and liquidity risk management procedures

<table>
<thead>
<tr>
<th>Counterparty credit risk</th>
<th>Liquidity risk</th>
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<tbody>
<tr>
<td>• Risk of loss from a participant’s default</td>
<td>• Risk faced by the clearing as it must fulfill its payment obligations to non-defaulting participants on schedule</td>
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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 – 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.
O valor bruto de operações realizadas na Câmara de Ativos da BM&F apresentou redução no terceiro trimestre de 2007, alcançando a média diária de R$66 bilhões e 600 milhões, respectivamente. Destacou-se o volume de operações realizadas em julho, quando a média diária de operações alcançou o valor de R$802 bilhões.

A modalidade de operações "Compensação", que é a principal modalidade de operações realizada na câmara, mostrou-se em média R$60 bilhões no terceiro trimestre, com aumento de 14% em relação ao segundo trimestre de 2007.

Observamos-se também a diminuição do valor bruto de operações realizadas com internamento, se no terceiro trimestre, o maior volume de operações com internamento foi de meio-segundo trimestre, cresceu trimestre a trimestre do volume de operações com internamento, do meio-segundo trimestre.

O poder de apuração da câmara mantém-se entre 99% e 99% durante o trimestre (Figura 2). Destaca-se o mercado em um cenário de volume reduzido.

**Backtesting**

Os resultados apresentados no relatório de backtesting permitem avaliar se os mecanismos de gerenciamento de risco da Câmara são eficazes. A análise da Figura 3 indica que os fluxos resultantes para cobrir o excesso de receita (valor de RFL) foram suficientes para reequilibrar os fluxos gerados pelos participantes.

Na qual os mecanismos de liquidez, observamos que as fluxos de liquidez externa são suficientes para atenuar os fluxos excessivos de fluxo de liquidez individuais operações no trimestre (Figura 4). A maior
Ongoing and Next Steps – I

• Assessment of SSS against RSSS and RCCP

**Questionnaires**
- Customization of assessment methodology
- Self-assessment
- Pre-analysis of answers

**Interviews**
- Meetings with SSS’s staff
- Additional evidences

**Reports**
- Assessment of the compliance with the recommendations.
- Oversight Report

**Inducing changes**
- Issuance of adequacy measures
- Follow up
Ongoing and Next Steps – II

- Backtests improvements

### Financial Risks

<table>
<thead>
<tr>
<th>Credit risk</th>
<th>Liquidity risk</th>
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<tbody>
<tr>
<td>Normal market conditions</td>
<td></td>
</tr>
<tr>
<td>Stressed market conditions</td>
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Compliance with RCCP 3, 4 and 5
Ongoing and Next Steps – III

• 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
Ongoing and Next Steps – IV

- Improvement of regulatory framework

### Regulation Improvements

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<tr>
<th>Governance</th>
<th>Business continuity management</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>• Segregation of risk</td>
<td>• Minimum requirements</td>
<td>• Update to international best practices</td>
</tr>
<tr>
<td>management and non-risk</td>
<td>• Accountability</td>
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<tr>
<td>management areas</td>
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<td></td>
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<tr>
<td>• Ownership limits</td>
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