BANCO CENTRAL DO BRASIL

Oversight of Systemically Important Systems Ricardo Eyer Harris

Annual Payments Week – 2007

Bahia, Brasil

November 27-30, 2007

Agenda

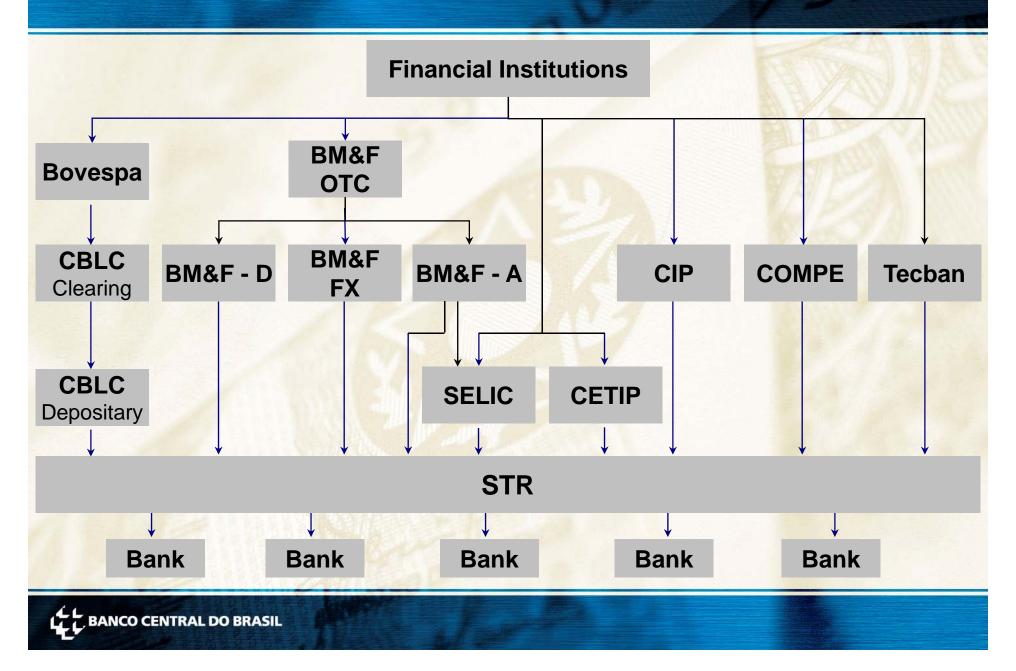
- Introduction
- Oversight Tools
- Ongoing and Next Steps

Introduction

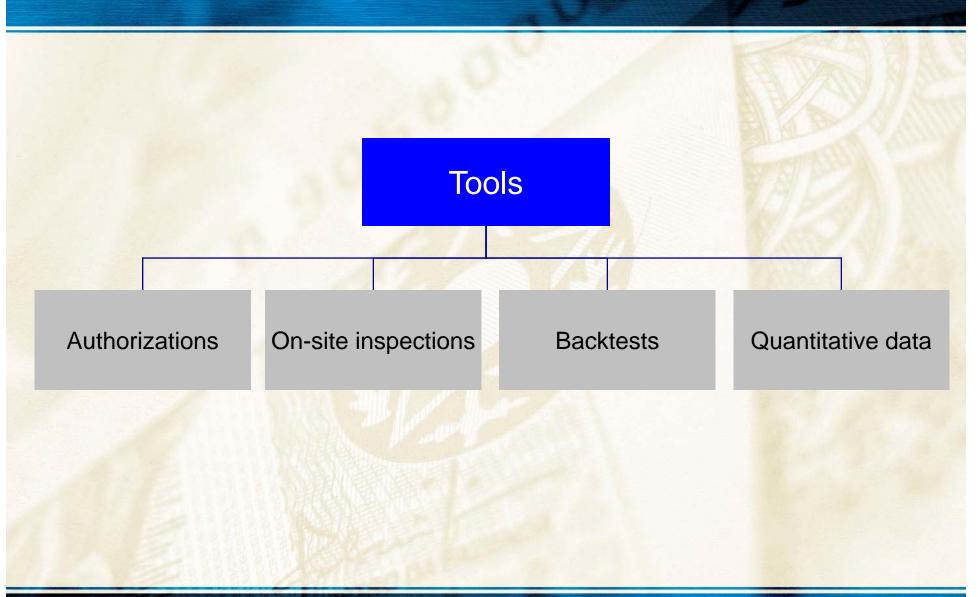
Oversight objectives

- 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



Oversight Tools – Overview



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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

Counterparty credit risk

Liquidity risk

 Risk of loss from a participant's default Risk faced by the clearing as it must fulfill its payment obligations to non-defaulting participants on schedule

Oversight Tools – Backtests – Description

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

Backtest Credit 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

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Oversight Tools – Backtests – Examples

Backtest Counterparty Credit Risk Risk (R\$ milhões) Total Financial Resources (R\$ milhões) 20 150 16 120 12 90 8 60 30 4 0 13-nov 28-dez 13-fev 29-mar 14-mai 26-jun 8-ago Total Financial Resources Risk

Backtest Liquidity Risk R\$ bilhões 2,0 1,6 1,2 0,8 0,4 0,0 Monto 28-dez 13-fev 29-mar 14-mai 26-jun 8-ago 20-set Highest Debit Position Credit Lines

R\$/USD: 1,764

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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



O vitor evolume de oremoïes nesociadas na Câmande Ativos da BM&F presentaram oscilações no terceiro trimestre de 2007, alcançando a mêdia diària de R\$63 bilhões e 60 operações em setembro, respectivamente. Destacase o volume de neso ciação ocomito em julho, quando a média diárã de operações alcançou o valor de R\$102 bilhões.

das com Lastro Genérico", principal modalidade de orrenção utilizada na câmara, movimentou em média R\$601 bilhães no terceiro trimstre, um aumento de 1.63% em relação ao segundo mimestre de 2007

Observou se mudarcana distribuição do volume de overações realizadas com intermoliação: se no trimestre orterior o, maior volume de orresodes com internediação foi por meio de ordem telefónica. nesse trimestre o major volume de orenações com internaliação foi por meio de registro.

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O poderde compensação da câmana mantevese entre 95% e 93% durante o trimestre (Figura 2). Destaca-se que no més em que houve maior volume

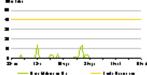
back terring pennitem avaliar se os mecanismos de gerenciamento de risco da Cârnam são eficazes. A análise da Figura 3 indica que os fundos criados para cobrir o risco de crédito (valores de RFL) seriam suficientes para suportar os riscos gendos pelos partici-

No que concerne so risco de liquidez, observa-se que qu'inhos de quisitância seriam suficientes mara a labertura das duas maiores rasitalies develoras individuais apundas no trimestre (Figura 4). A maior



Câmara de Ativos da BM&F





Tabe la 2 - Venda a Descoberto See 1. Bit Base Shault Bulles. second second cards according 178 1121212 100.00 178 1.04.014 10.004 -178 114-14 3.00.003 3660.003 10.00 178 1020 10104-0 UNIDAD Les pe 178 1.04.01 н. 178 10.24 3,362,913 12102912 DISCHARGE STREET, STRE DH. TTO-1 DIMENSION 138.8.3 138.8.3 . ETE-L EM-24 M 1244 Photo: -878-1 BMM 40.004 43.84 TT......

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representando 29% dos R\$16.8 bilhões do valor disnonivel em linhas de assistência. Considerando os dois maions sádos devalores, esse percentual dregou o 41.95 ora 1.20-2.007. Todas as nonmências de riscos de orientalles pendentes no trimestre (Figura 5) teriam sido cobertas

posição develora do trimestre ocorrea em 11.9.2007.

pelo Fundo Oremcional, sendo que o maior valor observado, ocomido em 15.8.2007, representau 3.2% desse findo A Tabéa 3 pennite avaliar a capacidate de a Câmara obter titulos nor meio de seu SET, conside-

rondo dodos do último trimestre. A coluno "Diferenco mixima" mostra o volume miximo de títulos - por tiro evenómento - que a Câmara teria que obterutilizando outros mecarismos que não o SEL no caso de falha de entreva. Cere distacar que não houve, no trimestre, ofertas no SET no momento da liquidação da jonela multilateral. Tal fato indica que a Câmara ainda desende internalmente do mercado secundário de títulos públicos ou das opemplies de noca com o Demab paín obter os títulos necessários em caso de ocoménciade faltade entrera.

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Ongoing and Next Steps – I

Assessment of SSS against RSSS and RCCP

Questionnaires	Interviews	Reports	Inducing changes
 Customization of assessment methodology Self-assessment Pre-analysis of answers 	 Meetings with SSS 's staff Additional evidences 	 Assessment of the compliance with the recommendations. Oversight Report 	Issuance of adequacy measuresFollow up



Ongoing and Next Steps – III



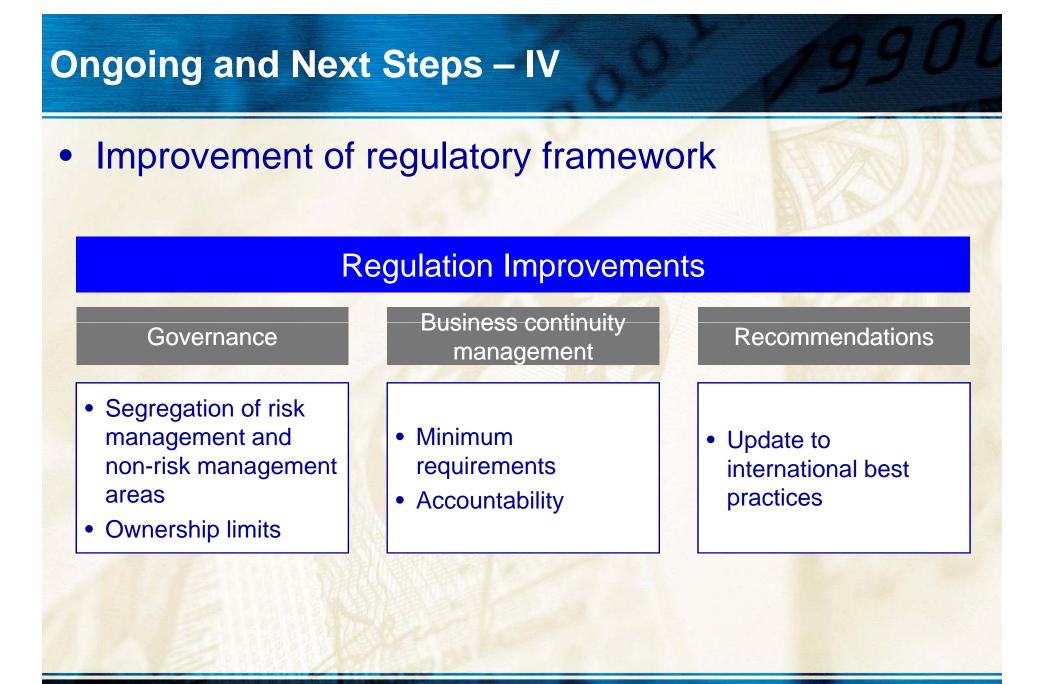
Business Continuity Management



Tests results review

Operational Reliability

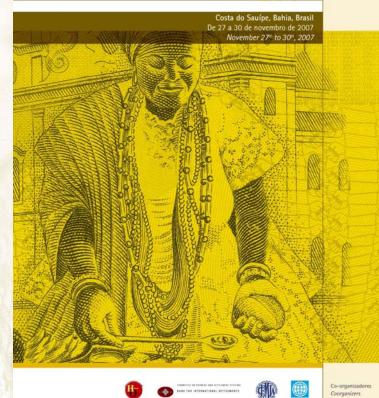
- Development of operational reliability ratios for the main macro processes of a deferred net settlement system
 - acceptance
 - clearing
 - settlement



SEMANA DE PAGAMENTOS PAYMENTS WEEK 2007

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Instituição anfitriã Host institution



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