



THOMAS MURRAY

Regulatory Developments and
Risk Challenges Impacting
Financial Market Infrastructures

29 March 2012

Agenda

- Risk Challenges for FMIs with emphasis on CSDs
 - Financial Risk
 - Liquidity Risk
 - Counterparty Risk
 - Asset Safety Risk
 - Operational Risk
 - Governance and Transparency Risk

- Amendments to Thomas Murray Methodology

- Next Steps

Risk Overview

Financial
Risk

Liquidity
Risk

Counterparty
Risk

Asset Safety
Risk

Operational
Risk

Governance and
Transparency
Risk

Financial Risk

Challenge

- FMIs must increase their capital and liquid reserves to meet new standards and regulatory requirements.

Example

- Egypt's political turmoil in 2011:
- The market was closed for almost two months

Associated Regulation

- CPSS IOSCO Principal 15: **General Business Risk**
- "An FMI Should identify, monitor and manage its general business risk and hold sufficiently liquid assets funded by equity to cover potential losses so it can continue providing services as a going concern".

Challenges for CSDs

- To determine what level of capital is adequate for the CSD
- To finance the capital increase in a way that it is not a deterrent to the market / investors (e.g. via significant price increases)
- Revenue diversification – Commercial vs utility services
- To re-assess the CSD's financial and dividend policy to maintain sufficient liquid reserves
- Capital should be stress-tested vs potential losses and call on resources
- Changes to the investment policies to manage liquid reserves – where is safe and profitable to maintain the reserves?
- How to control costs as capital requirements will be correlated with monthly expenses?

How to invest and manage the additional liquid reserves?



Liquidity Risk

Challenge

- High quality collateral is in short supply.

Example

- 2008 credit crisis started the liquidity squeeze which still persists.
- The Eurosystem has removed Greek sovereign debt as eligible collateral.

Associated Regulation

- CPSS IOSCO Principal 5: **Collateral**
- “An FMI that requires collateral to manage its or its participants’ credit risk should accept collateral with low credit, liquidity, market risk”.

Challenges for CSDs

- How to maintain sufficient liquidity in the system while applying conservative haircuts?
- How to calculate haircuts for different types of securities?
- Should CSDs provide for centralised collateral management schemes?
- How often should collateral be calculated? Can the system support collateral calculation on a mark-to-market basis?
- Is the risk model taking into account intra-day volatility in asset prices?

How to maintain sufficient liquidity in the market?



Counterparty Risk

Challenge

- Default and fails management procedures for cash OTC trades

Example

- On-exchange trades are well managed but OTC trades need to be under control

Associated Regulation

- CPSS IOSCO Principal 13: **Participant-default rules and procedures**
- “An FMI should have effective and clearly defined rules and procedures to manage a participant default that ensure that the FMI can take timely action to contain losses and liq pressures”.

Challenges for CSDs

- Regulation has been concentrated around OTC derivatives (e.g Dodd-Frank Act and EMIR), could OTC cash markets be next?
- Very few CSDs currently regulate OTC trades
- Most CCPs cover on-exchange trades while OTC mostly optional
- Most CSDs do not have the power to regulate the OTC market
- Should the fails and default management procedures be similar to the on-exchange market?
- What would be the best entity to manage these?
- Additional guarantees for OTC trades could squeeze liquidity in other markets

How to mitigate market risk in OTC trades?



Asset Safety Risk

Challenge

- Maintain segregation of participants' assets

Example

- Lehman, Madoff and MF Global have raised the question of asset safety to the fore.

Associated Regulation

- CPSS IOSCO Principal 16: **Custody and Investment Risk**
- “An FMI should safeguard its assets and minimise the risk of loss or delay in access to those assets, including assets posted by its participants”.

Challenges for CSDs

- Indirect vs Direct Holding Models – how to convert an existing account structure?
- Can the CSD offer alternatives to investors looking to have a fully segregated account?
- Can foreign investors be direct participants of the CSD or be ‘sponsored’ participants?
- Can foreign investors manage their accounts remotely?
- Can the CSD provide sufficient information to regulators in respect of participants’ holdings?
- How to protect participants’ assets in the event of another participant going bankrupt in the same pooled account?

How to protect investors against other participants' bankruptcies?



Operational Risk

Challenge

- To provide continuity of systems and services in any circumstance.

Example

- The 2010 earthquake in Chile proved that an overseas back-up centre might be necessary in extreme circumstances.

Associated Regulation

- CPSS IOSCO Principal 17: **Operational Risk**
- “An FMI should identify all possible sources of operational risk, both internal and external, and minimise their impact through the deployment of appropriate systems, controls and procedures”.

Challenges for CSDs

- Identify potential threats and sources of risk for the CSD – different CSDs are exposed to different types of risks depending on location, market conditions, etc.
- How to find a solution that can be funded by the CSD and provides effective recoverability/ continuity of operations?
- Distance vs latency – can back-up centre's further away provide real-time data mirroring? How much latency is acceptable?
- What kind of tests are required to ensure that the CSD will remain operational? How to involve all participants (live vs simulated tests)?

How to find the right balance between risk, cost and effort?



Governance and Transparency Risk

Challenge

- How can CSDs have a balanced Board that works on behalf of the market and provides enough corporate and market data.

Example

- Additional levels of transparency demanded for vertical silos

Associated Regulation

- CPSS IOSCO Principal 2: **Governance**
- “An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and promote the efficiency of the broader financial system”.

Challenges for CSDs

- The Board should have the right balance of shareholders, participants, qualified independent directors, etc.
- Transparency in fee policy and other decisions are crucial since CSDs are natural monopolies
- Changes and developments should be consulted with participants through committees
- The Board should work in favour of the CSD and the market
- CSDs should have adequate systems in place to provide sufficient market information
- CSDs should provide sufficient corporate information to allow investors to verify the financial strength and proficiency of risk controls of the CSD.

Do all Board members have a common interest?



Amendments to Thomas Murray Methodology

- New methodology
 - A more numerical approach
 - Incorporation of some of the recommendations of CPSS IOSCO and other new regulations for CSDs e infrastructure entities
- Two new risks will be added to the CSD risk assessments
 - Asset Safety Risk
 - Governance and Transparency Risk
- New risk assessments on CCPs will be developed in 2012

Next Steps



An avalanche of regulations

Thank You