



FPL Canadian Electronic Trading Conference 2009

*Toronto Hilton
June 1 and 2, 2009*

Operational Risk Management Developments



pure. | A CnsX MARKET



Session Participants

Operational Risk Management Developments

- Richard Carleton, VP, Corporate Development, CNSX (Moderator)
- Phil Wright, Managing Director, Head of Canadian Sales, CanDeal
- Darcy Hall, Managing Director, Fixed Income and Derivatives, CIBC World Mkts
- Milos Vukovic, VP, Investment Policy, RBC Asset Management



Risk Management Background

The Basel Committee on Banking Supervision issued the BASEL II guidelines in June, 2004 to supply a risk management and disclosure framework for financial institutions. 3 broad areas of risk were defined:

- Market Risk (typically defined as VaR in a portfolio)
- Credit Risk (the risk that a debtor does not repay a loan)
- Operational Risk (the risk arising from execution of a company's business functions)



Risk Management: Equity Market Initiatives

Coordinated by IIAC, marketplaces are collaborating on the creation of a standard communications protocol in the event of service interruptions:

- Communications best practices
- Reminder of the need for follow up, information concerning the resolution of the issue
- Updated contacts for all of the markets
- Escalation contacts
- Re-start procedures



Risk Management: Equity Market Initiatives

Two failover tests are being organized:

- November, 2009: in conjunction with scheduled TSX DR test, a full TSX outage scenario will be added. Dealers will be able to test ability to move orders over to other markets for duration of TSX outage.
- 2010: IIROC is organizing an industry wide DR test involving marketplaces, vendors, dealers and regulators.



Risk Management: Equity Market Initiatives

When all else fails, there is “self help”:

- dealers have a regulatory obligation to take “reasonable steps” to comply with the “best price” rules.
- In the event that a protected market is experiencing technical issues with its trading and or market data systems, IIROC will permit a dealer to deal away from that market for the duration of the problem.
- Relief is also granted in the event of significant recurring problems: see IIROC Rules Notice 09-0107



Operational Risk Management in OTC Markets:
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Phil Wright

WHERE THE MARKET COMES TO TRADE



OTC Market Risk Factors

CANDEAL

1. Opaque
 - Confidential interactions
 - Lack of public information
 - Incomplete trade records
2. Dynamic
 - Volatile price environment
 - Inconsistent liquidity
 - Correlated trading pattern
 - Leveraged strategies
3. Latent Processes
 - Backward-looking Risk Management
 - Delayed Supervision and Oversight
 - Redundancy & Human Error
4. Malfeasance
 - Opportunity, Means and Motivation



Risk Management Opportunities

CANDEAL

- Capture trade information in real-time
- Contain dealing environment
- Move trade-processes forward
- Create & leverage new information



Impact of Electronic Trading

CANDEAL

- Globally adopted
- Altered Expectations & Behaviour
- Directly Impacts:
 - Trade Execution
 - Risk Management & Compliance
 - Trade-processing
 - Information



What Can I Do Today?

CANDEAL

1. Crystallize trades in Electronic Record – 80% of the solution
2. Develop a policy for E-trading
3. Integrate Systems Infrastructure
4. Introduce a Trade Review process



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**Operational Risks within OTC
Derivatives**

Darcy Hall, CIBC



Latest Developments on Operational Risks within OTC Derivatives

- OTC derivative contracts are customized and unique trades:
 - Interest Rate Swaps/Options
 - Equity Forwards/Options
 - Credit Default Swaps
 - ...etc
- Operational Risks
 - Counterparty Risk / Default Management
 - Back Office Operations: Settlements and Collateral Management
 - Front Office Market Risk Management
- Developments:
 - Move to standardized contracts and electronic trading
 - “Live” Counterparty Risk management
 - Centralized Clearing and Valuation houses (DTCC, SwapClear,, etc)
 - Centralized Trade Collapse Services





Counterparty Management – OTC Positions

- Use of Contingent Counterparty Credit management group to measure, manage and cost the real economics and risks of using counterparty credit capacity.
 - Accurate deal pricing/analysis
 - Manage and monitor counterparty usage and limits
 - Better choice of hedging counterparties
 - Better use of netting and margining agreements
- “Live” Counterparty Risk Management through the use of marked-based daily CDS levels and daily Counterparty Credit Exposure calculations from all OTC derivative positions.
 - Active monitoring and hedge management
- All market data needs to be fed through Credit engines –calculate exposure based on CDS and Potential derivative exposure on default.
- Difficult to collapse Netted Positions across hundreds of counterparties
- Example: Lehman Brothers default in September 2008
 - Successful market risk and operations risk management to unwind and replace hedges on thousands of transactions in orderly fashion
 - However, uncertainty about the follow-on effects caused market panic for months





Counterparty Management – “Exchange” Positions

- Central clearing house acts as Central Counterparty (CCP) to all positions
 - Significant savings on Credit Capital for member Banks
 - Significant savings on Operational Capital for member Banks
 - Electronic trade confirmation, STP and automated settlements
 - Default risk management through CCP Margin funds
 - Efficient and centralized trade unwind on counterparty default
- Transparent and known ‘Netted’ Market Positions for Regulators
 - Ex. Trillions of CDS Notional – but what is the Net Position?
 - Too big too fail – why was AIG such a concern?
- Transparent and fully collateralized Valuations
 - Significant reduction in collateral disputes
- Easy to bulk Novate and Net transactions across member positions
- Default Management Example: Lehman Brothers default in September 2008
 - CCP handles trade replacements using margin/default funds
 - Positions can be closed out and auctioned within weeks





Electronic Trading - Moving OTC to “Exchange”

- Currently, Counterparty Risk to OTC derivative transactions makes electronic trading a hindrance.
- As we move towards the Central Counterparty model, increased electronic trading is the logical concurrent step.
- Time to close derivative trade based on the Counterparty Risk check can be uncertain and lengthy.
 - Do we have the applicable limit to add new trade to portfolio of trades with the Counterparty?
 - Market can move while approval is obtained
 - Uncertainty causes risk and wider bid/offer spreads
 - Electronic Trade confirmations can be hours while written confirmations can be days
- Compare against time to close electronic CCP based derivative trades would be nearly instantaneous
 - Trade confirmations within seconds providing certainty of trade completion
 - Certainty of Counterparty performance and settlements provides significant confidence to all market participants.





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Operational Risk

Milos Vukovic, RBC Asset Management Inc.