ABI FIELD HEARING

EFFECTS OF SAFE HARBORS - LEHMAN DERIVATIVES

May 15, 2013

EXECUTIVE SUMMARY

- **Failed SIFI + Derivatives = Toxic Recipe**
  - Derivatives was the greatest value destroyer in the Lehman Bankruptcy :
    - **Unprecedented:** Derivatives book was unprecedented in size, scale and complexity
    - **Freefall bankruptcy**: no prep, no derivatives department, no inventory, valuation and cash management systems shut-down and no derivative unwind blueprint
    - **Mismatching of Book**: splintering of the group into separate legal entities resulted in an unmatched book
    - **Safe harbors**: safe harbors allowed derivatives counterparties to terminate and get non-defaulting party close-out advantage and push "commercial reasonableness" to its extreme
  - Derivatives value destruction:
    - Asset Depletion: $25B estimated to monetize at $18B
    - Claims Escalation: $12B payables likely to grow to $26B ($70B claims filed)

- **Goals of safe harbors & bankruptcy code are challenging to reconcile**
  - Safe harbor goal: minimize systemic market through market certainty by allowing terminations
  - Bankruptcy code goal: maximize debtor recoveries by avoiding preferential close-out by street
    - Reconciliation: maintain derivatives in a going concern

- **Conclusion: the safe harbors are a necessary evil**

DERIVATIVES PORTFOLIO OVERVIEW

Portfolio Size

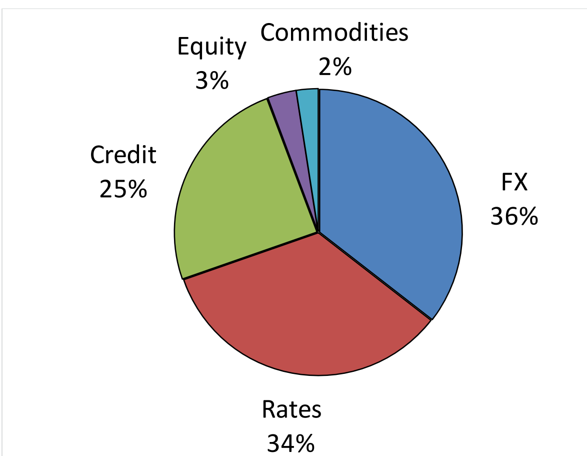
Notional Value	$39 trillion
Counterparty Contracts	> 6,500
Trades[1]	1.2 million

Portfolio Highlights

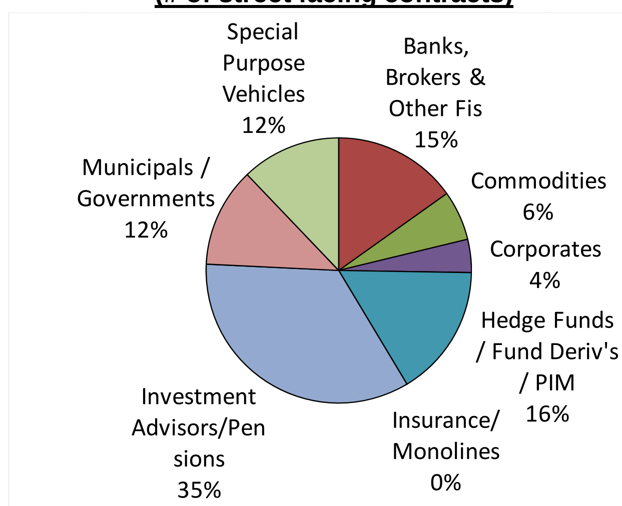
- One of the largest derivatives book on the street at time of Bankruptcy – Top 5 US Dealer
- **Complex Portfolio:**
  - Cross product
  - Cross industry
  - Cross region

Portfolio Segmentation

Product Segmentation (# of Trades)



Industry Segmentation (# of street facing contracts)



DERIVATIVES – WINDDOWN BLUEPRINT

Key Initial Challenges:

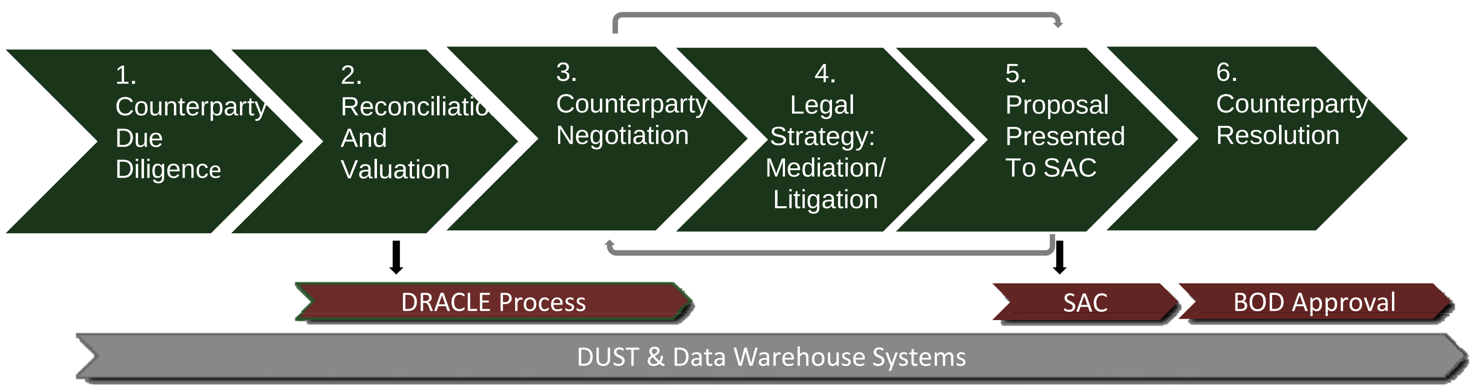
- No derivatives department
- No inventory
- Loss of operational support
- Loss of systems
- Unmatched books
- Uncharted legal territory

Unwind Blueprint:

- Set-up workforce of ~300
- Built infrastructure, systems and processes
- Created valuation platform
- Developed legal strategies

Result:
- Successfully unwound 5,800 or 87% of book over 4 years
- Creating "standard" for commercially reasonable unwind of derivatives contracts

DERIVATIVES UNWIND PROCESS



DERIVATIVES CHALLENGES

In initial phase Lehman was "reactive" and on "receiving" end of derivatives unwind

Operational Challenges:

- Termination notices management
- Close out (reconciliation/valuation) management with counterparties not providing information
- Collection effort: counterparties that refused to pay

Value Destruction:

- Inflated claims
- Deflated receivables
- Claims assertion where Lehman saw assets
- Collateral "grab" to offset purported claims
- Set offs to drive to a payable result

Counterparty Action

TERMINATED	NOT TERMINATED (LIVE)
80% Contracts 99% Trades	20% Contracts 1% Trades
• 5,200 contracts • $11B receivables • $47B filed claims (estimated at $24B)	• ~1,450 contracts • $7B receivables • $4B filed claims (estimated at $3B)

*Snapshot of contract status as of March 31, 2009

TERMINATED COUNTERPARTIES

COUNTERPARTY TERMINATION ADVANTAGE

Valuation Date and Time

- Counterparty is calculation agent
- Valuation as soon as reasonably practicable after termination
- **Cherry picking opportunity**:
  - dates of valuation
  - Time in the day
  - Value across different dates asserting market illiquidity
- American Home Mortgage application provides some relief – "commercially reasonable determinants of value"

Market Quotation Method

- 4 quotes needed; value at average of middle 2
- **Gaming opportunities**:
  - Flawed quote process
  - Relationship quotes
  - Non-firm quotes
  - Quotes sought without netting risk
  - No Bids means zero value to Lehman
  - Quotes on wrong day
  - Quotes for wrong trades
  - Revert to loss if quotes process not appropriate

Loss/Close Out Method

- Contractual or if market quotation fails
- "Losses and costs":
- **Issues**:
  - Pricing time and dates
  - Model assumptions beneficial to counterparty
  - No or limited portfolio aggregation / netting
  - Hypothetical charges on trades
  - Costs related to macro hedges

TERMINATED COUNTERPARTIES

Examples of Adverse Impact on Lehman

- Counterparties valued their portfolio of derivatives trades every day over a period of one week and cherry picked the date most advantageous to them
- Counterparties "looked back" retrospectively at market movements through out a day and for each trade, picked the time most beneficial to them
- Counterparties applied add-on charges on every trade across their trade portfolios resulting in escalating friction costs instead of netting long and short positions
- Counterparties applied egregious "hypothetical" and "theoretical" charges on mid market valuations owed to Lehman, thereby converting a receivable to a claim
- Counterparties obtained market quotes from dealers and submitted the average of the middle two to Lehman, while at the same time replacing at the best quote
- Counterparties who were unable to get market quotes asserted that as a result they don't owe Lehman anything
- Counterparties "shopped" for market quotes and submitted the ones most beneficial to them

LIVE COUNTERPARTIES

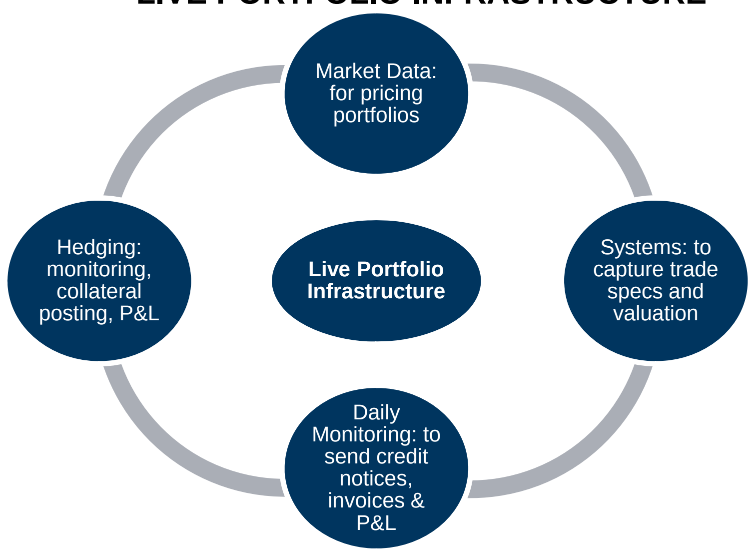
REASON FOR "NON TERMINATION"

- Inability or unwillingness to pay Lehman
- Technical requirement to hedge per financing or other covenants
- Attempt to suspend contractual payments (using section 2aiii of the ISDA contract)

SOURCE OF VALUE DESTRUCTION

- Infrastructure set up costs: valuation, cash flow management, monitoring, notification/reporting
- Risk management: post-petition ISDAs set up with collateral posting to hedge positions
- Wind-down costs: assignment/novation of contracts at cost of market participants' P&L charges

LIVE PORTFOLIO INFRASTRUCTURE



SET-OFF ASSERTIONS

SOURCE OF VALUE DESTRUCTION

- Set off of collateral posted
- Mutuality of contracts
- Cross Lehman affiliate set-off
- Cross Counterparty entity set-off

EXAMPLES OF OPPORTUNISTIC SET-OFF ASSERTIONS

- Shifting Claims across entities
- Shifting Collateral across entities
- Set-off against Lehman bonds, notes, equity, other property
- Contingent withholding of payments

CONCLUSION

- Safe harbors are the source of great value destruction when derivatives are involved
- This value destruction is exacerbated when a SIFI is on the "receiving side"
- These damages should however be somewhat tempered in the future as a result of:
  - Lehman experience
    - Wind-down blueprint
    - Market preparedness: market participants (or rather their lawyers!) to close out their trades
    - Increased Legal Certainty: more clarity around scope of the safe harbors and acceptable close out rules (netting, add-ons, commercial reasonableness)
  - Living wills: broker dealers have streamlined their legal entities and derivatives contracts
  - Limitation of prop trading & increased ETD trading
- Value destruction can however only be avoided while also avoiding systemic risk by keeping book live which means transferring book to a going concern, i.e. OLA
- Conclusion: the safe harbors are a necessary evil