The Future of the OTC Derivatives Market

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4th International Financial and Capital Markets Conference

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About ISDA

ISDA’s Focus: Identify and reduce sources of risk in the privately negotiated derivatives business

- Founded in 1985; represents participants in the privately negotiated derivatives industry
- Over 830 member institutions from 57 countries on six continents: One of the largest global financial trade associations, by number of member firms
- Members include most of the world's major derivatives dealers, as well as many businesses, governmental entities and other end users
About OTC Derivatives

Bilateral privately negotiated contracts
  • Typically customized to meet particular needs of end-users
  • Not securities like bonds or notes

Simple confusion
  • CDS vs. CDO and "derivative securities"

Risk-shifting, not capital-raising, tools

Important role in global economy
About OTC Derivatives

Derivatives are an integral risk management tool for the world’s leading companies

- Used by over 94% of Fortune 500, and 60% of mid-sized companies

![Bar chart showing percent using derivatives](chart.png)
About OTC Derivatives

Understanding Notional Amounts Outstanding

Notional Amount
- Measure of outstandings, not exposure
  - $450 trillion

Gross Mark to Market Value
- Estimated to be 2 to 6% of notional
  - $9 to $27 trillion

Net Credit Exposure
- After netting and before collateral
- Estimated to be less than 1% of notional
  - $4.5 trillion
Collateral Further Reduces Credit Exposure

• Vast majority of derivatives exposure is collateralized
• 87% of over 150,000 collateral agreements in place are ISDA agreements
• 66% of OTC derivative credit exposure is now covered by collateral compared with 29% in 2003
• 65% of all OTC derivatives trades are subject to collateral agreements, compared with 30% in 2003
  – Among large dealers, the median coverage is 87%
Credit Default Swaps Market Trends

![Credit Default Swaps Market Trends Chart](chart-image-url)

- **US$ trillion**
- **Years**: 2001 to 6/30/2009

The chart shows the growth and decline in the Credit Default Swaps market from 2001 to 2009, with a significant peak in 2007.
## What Is the True Level of CDS Exposure?

### Gross vs. net notional

<table>
<thead>
<tr>
<th>Reference Entity</th>
<th>Gross Notional (USD EQ)</th>
<th>Net Notional (USD EQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Name</td>
<td>$15.2 trillion</td>
<td>$1.4 trillion</td>
</tr>
<tr>
<td>Index/Tranche</td>
<td>$11.1 trillion</td>
<td>$1.1 trillion</td>
</tr>
<tr>
<td>Total</td>
<td>$26.3 trillion</td>
<td>$2.5 trillion</td>
</tr>
</tbody>
</table>

Source: DTCC Trade Information Warehouse, as of Aug. 8, 2009
1. Did CDS cause the financial crisis?

2. Did CDS pose systemic risks during the financial crisis?

3. How has the CDS market performed during the market turmoil?

4. What improvements are underway?
Credit Default Swaps are NOT the cause of the Financial Crisis.

- Poor lending decisions, principally in housing finance, are the root cause
- CDS are risk-shifting tools. Companies could—and did—use CDS to manage risk to powerful effect
- CDS is not a primary driver behind lending decisions—not a no-cost option
Did CDS Pose Systemic Risk During the Financial Crisis?

Bear Stearns
- Problems related to a lack of confidence from lenders
- Classic liquidity squeeze; relied too much on short-term funding

Lehman Brothers
- From March to September, market concerns had shifted from counterparty exposure to reference entity exposure
- Gross notional exposure on Lehman was $72 billion but net notional was $5 billion
- Bankruptcy created no systemic fault lines
How Has the CDS Market Performed During the Market Turmoil?

CDS business has functioned well

CDS market remained open – activity robust

• Only credit product consistently available to allow firms to transfer risk

In past year, over 40 credit events

• All were managed in an orderly fashion with no major disruptions
What about AIG?

The failure of AIG reflects failures in how….

- the company managed its mortgage risks and exposure
- regulators (OTS) supervised those risks
- the company managed its collateral and liquidity
- the rating agencies rated mortgage risks and capital adequacy

AIG was clearly an outlier in many of its business practices and policies

- “…we must not be overwhelmed by the fact that one high profile financial institution, AIG, made a bad investment decision, using derivatives to guarantee mortgages that went sour.”
Central counterparty clearing of standardized transactions

- Since 2005, industry participants have been working towards implementing a central clearing house for credit derivative transactions
- Approx. US$1.7 trillion of CDS have been cleared in North America since March
- Approx. €38 billion of CDS have been cleared in Europe since July

Reduction of CDS notional size by approx. half

- Portfolio compressions /trade tear ups
What Improvements Are Underway?
Industry-led efforts to identify & reduce sources of risk

Stronger trade / default settlement processes
• The Big Bang Protocol
• Determinations Committee comprising dealers and buy-side
• More than 40 Credit Events processed globally since Oct 2008
• Electronic processing and matching of confirmations
• Collateralized portfolio reconciliation
• Confirmation backlog reductions

Greater transparency
• More open industry governance structure
• Publication of aggregate market data
# Snapshot of Today’s OTC Infrastructure

## Equities
- **Central Clearing**
  - Liffe BClear
  - LCH SwapClear

- **Electronic Execution**
  - Bloomberg
  - ICAP
  - TFS
  - Tullet

- **Matching/Confirmation**
  - Markit Wire
  - Deriv/SERV

- **Trade Repository**
  - DTCC TIW
  - LCH SwapClear
  - MarkitServ Database
  - TriOptima

## FX
- **Central Clearing**
  - LCH SwapClear

- **Electronic Execution**
  - Bloomberg
  - GFI
  - Volbroker
  - Trade Blade
  - EBS
  - FXAII
  - Reuters

- **Matching/Confirmation**
  - Swift
  - CLS

- **Trade Repository**
  - DTCC TIW
  - LCH SwapClear
  - MarkitServ Database
  - TriOptima

## Rates
- **Central Clearing**
  - LCH SwapClear
  - CME
  - IDCG

- **Electronic Execution**
  - Bloomberg
  - Deriv/SERV
  - Tradeweb
  - ICAP
  - Tullet

- **Matching/Confirmation**
  - MarketWire
  - Trade Express

- **Trade Repository**
  - DTCC TIW
  - LCH SwapClear
  - MarkitServ Database
  - TriOptima

## Credit
- **Central Clearing**
  - ICE US Trust
  - ICE Clear Europe
  - Eurex
  - CME
  - LCH Paris SA

- **Electronic Execution**
  - GFI
  - ICAP
  - MarketAxess
  - Creditex
  - Phoenix

- **Matching/Confirmation**
  - T-Zero
  - Markit Wire
  - Deriv/SERV

- **Trade Repository**
  - DTCC TIW
  - Econfirm

## Commodities
- **Central Clearing**
  - CME ClearPort
  - LCH
  - ICE Clear
  - ECC
  - NOS Clearing
  - APX

- **Electronic Execution**
  - Trading Technologies
  - Fastfill
  - NGX
  - EBS
  - LME Select
  - Trayport
  - Bloomberg

- **Matching/Confirmation**
  - E-confirm
  - EFET
  - SWIFT

- **Trade Repository**
  - DTCC TIW
  - Econfirm

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**Notes:**
- Existing option
- Potential option

*ISDA®*
Credit default swaps are important risk transfer instruments in today's global economy. ISDA CDS Marketplace™ brings together information, data and statistics to help you better understand the CDS business.

About the CDS Market
A credit default swap (CDS) is a bilateral agreement designed to transfer risk from one party to another. A growing number of firms rely on these instruments to efficiently manage their risks.

Daily Prices
How is the CDS market trading? Daily price changes for a range of industry indices and single name reference entities are provided here to enable readers to see and understand current trends in the CDS business.

Exposures & Activity
Which reference entities were most actively traded during the past week, in terms of number of contracts and notional exposures? And which reference entities have the highest level of protection sold on them?

Market Statistics
How large is the CDS market? ISDA, along with other institutions such as the Bank for International Settlements, periodically survey this global business to measure its growth and size.
### ISDA CDS Marketplace Website: Single Name Reference Entities

The following charts list the single name reference entities in North America and Europe with the largest increase or decrease in CDS prices for the most recent trading day. A CDS price chart is also available by clicking on each reference entity. This CDS price information is supplied by Moody’s Analytics, who also provided its long-term credit rating on each reference entity as well as the rating implied by the current price of the reference entity’s CDS.

#### Corporate Credit Improvement (North America)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F US FCE</td>
<td>Ford Motor Co</td>
<td>925</td>
<td>(94)</td>
<td>(140)</td>
<td>(214)</td>
<td>(230)</td>
<td>None</td>
<td>B2</td>
</tr>
<tr>
<td>BC US</td>
<td>Brunswick Corp</td>
<td>642</td>
<td>(58)</td>
<td>(91)</td>
<td>(398)</td>
<td>242</td>
<td>Caa1</td>
<td>B3</td>
</tr>
<tr>
<td>DYN US</td>
<td>Dynegy Inc</td>
<td>854</td>
<td>(49)</td>
<td>(4)</td>
<td>(254)</td>
<td>414</td>
<td>None</td>
<td>B3</td>
</tr>
<tr>
<td>CTB US</td>
<td>Cooper Tire &amp; Rubber</td>
<td>430</td>
<td>(40)</td>
<td>(03)</td>
<td>(200)</td>
<td>(305)</td>
<td>Caa1</td>
<td>B1</td>
</tr>
<tr>
<td>DDS US</td>
<td>Dillard’s Inc-cl A</td>
<td>976</td>
<td>(44)</td>
<td>50</td>
<td>161</td>
<td>216</td>
<td>B3</td>
<td>Caa1</td>
</tr>
<tr>
<td>GNW US</td>
<td>Genworth Financial Inc-cl A</td>
<td>812</td>
<td>(36)</td>
<td>(33)</td>
<td>(44)</td>
<td>432</td>
<td>Baa3</td>
<td>B3</td>
</tr>
<tr>
<td>LIZ US</td>
<td>LIZ Claiborne INC</td>
<td>879</td>
<td>(33)</td>
<td>(56)</td>
<td>(124)</td>
<td>449</td>
<td>B2</td>
<td>B3</td>
</tr>
<tr>
<td>HLT US</td>
<td>Hilton Hotels Corp</td>
<td>952</td>
<td>(32)</td>
<td>(166)</td>
<td>(91)</td>
<td>928</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>C US SNR</td>
<td>Ciligroup Inc</td>
<td>225</td>
<td>(31)</td>
<td>(50)</td>
<td>(175)</td>
<td>81</td>
<td>A3</td>
<td>Ba2</td>
</tr>
<tr>
<td>AES US</td>
<td>Aes Corp</td>
<td>451</td>
<td>(30)</td>
<td>(10)</td>
<td>(161)</td>
<td>86</td>
<td>B1</td>
<td>B2</td>
</tr>
</tbody>
</table>

Data current as of August 10, 2009
ISDA CDS Marketplace Website: Top 10 CDS Positions

Exposures & Activity

Top 10 CDS Positions

The following charts list the single-name reference entities with the most notional outstandings on a net and gross basis. This information is provided by DTCC DerivSERV LLC, a subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). The information in these reports is displayed and can only be used by you pursuant to the Terms of Use posted on the DTCC website.

Net Notional

Net notional values with respect to any single reference entity is the sum of the net protection bought by net buyers (or equivalently net protection sold by net sellers). Net notional positions generally represent the maximum possible net funds transfers between net sellers of protection and net buyers of protection that could be required upon the occurrence of a credit event relating to particular reference entities (actual net funds transfers are dependent on the recovery rate for the underlying bonds or other debt instruments).

<table>
<thead>
<tr>
<th>Reference Entity</th>
<th>Net Notional (USD Million)</th>
<th>Number of Contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPUBLIC OF ITALY</td>
<td>21,682,651,271</td>
<td>4,202</td>
</tr>
<tr>
<td>KINGDOM OF SPAIN</td>
<td>11,303,972,817</td>
<td>2,433</td>
</tr>
<tr>
<td>GENERAL ELECTRIC CAPITAL CORPORATION</td>
<td>11,230,755,723</td>
<td>7,180</td>
</tr>
<tr>
<td>FEDERAL REPUBLIC OF GERMANY</td>
<td>11,042,232,220</td>
<td>1,340</td>
</tr>
<tr>
<td>FEDERATIVE REPUBLIC OF BRAZIL</td>
<td>9,768,305,012</td>
<td>8,756</td>
</tr>
<tr>
<td>HELLENIC REPUBLIC</td>
<td>8,255,339,090</td>
<td>1,696</td>
</tr>
<tr>
<td>REPUBLIC OF AUSTRIA</td>
<td>7,829,669,700</td>
<td>1,412</td>
</tr>
<tr>
<td>BANK OF AMERICA CORPORATION</td>
<td>7,212,019,911</td>
<td>8,957</td>
</tr>
<tr>
<td>DEUTSCHE BANK AKTIENGESELLSCHAFT</td>
<td>7,165,730,611</td>
<td>5,577</td>
</tr>
</tbody>
</table>

Data current as of August 1, 2009
Current Public Policy Initiatives

Broad consensus amongst policy makers (US Treasury, FRBNY, EC, FSA) and industry around the world on key issues

- Appropriate regulation for all financial institutions that may pose a systemic risk to the financial system
- Stronger counterparty risk management (including clearinghouses)
- Improved transparency
- Strong, resilient operational infrastructure
Three Levels of Transparency in the U.S. Treasury Proposal

Risks

Valuation/Counterparty Transparency

Investor/Market Transparency

Supervisory/Risk Transparency

Solutions

- Central Clearing
- Buy-side Segregation/Clearing
- Collateral Management

- Price Transparency
- On-Exchange/Electronic Execution

- Operational Measurements
- Trade Repository
Preserving flexibility to tailor solutions to meet the needs of customers is essential.

Efforts to mandate that privately negotiated derivatives business trade only on an exchange would reduce their availability.

Banning “naked shorting” via CDS would adversely impact the credit markets.

Need for cross-border regulatory coordination.
OTC Derivatives: The Road Ahead

Privately negotiated derivatives will remain vital risk management tools

Industry's trading and operational infrastructure is strong and resilient

Financial innovation spreads to more asset classes, more geographies

ISDA and the industry are committed to working together to make further progress