Credit derivatives

1) Overview
   Market evolution

2) Miscellaneous
   Characterisation: Financial contracts vs Insurance
   Chinese walls - JMPF I and II
   Capital

3) Documentation

4) Operations issues
   Background; Strategic Plan; FpML
Overview
New market – liquidity growing

Credit Derivatives Market Growth

Source: ISDA (www.isda.org – Surveys)
Market evolution

• Circa 1994:
  – Asset swaps
  – Total Return Swaps, Spread Options, Nth-to-default baskets

• Circa 2004:
  – Credit Default Swaps – CDS (corporate, sovereign, index…)
  – Synthetic securitisations; single-tranche synthetics
  – Swaptions (option on CDS)

• Ca 2006?
  – ‘(Fixed) Recovery’ swaps, constant-maturity swaps
Credit default “swap” mechanics

- Allows long/short positions in the credit risk of the Reference Entity
- Economically, more like an option than a swap

Protective Buyer

Reference Entity

Protection Seller

Premium (‘Fixed Rate Payment’)

Contingent (‘Floating Rate’) Payment

- Payment is contingent on a triggering Credit Event and satisfaction of the ‘Conditions to Settlement’
- Physical (or Cash) Settlement.
- No Credit Event occurs: payout = 0 (option expires without intrinsic value).
Miscellaneous Issues
Characterisation

• Credit Derivatives are *not* insurance
  – payout linked to market values – *not* to proven loss
  – no ‘insurable interest’
  – ‘Potts’ opinion – 1997
  – International Accounting Standards
  – analogy with weather derivatives (debate in US)

• At stake: tax, accounting, as well as enforceability (‘vires’)
  – ISDA seeking statement from US tax authorities (IRS)
Chinese walls

- Loan originators obtain private information
- Credit is now traded in public markets
- Commentators fear insider trading

- **JMPF**
  - US: IACPM, ISDA, LSTA, TBMA – October 2003
    - Structures/procedures to segregate public and private sides
    - Relevant legislation – Exchange Act, Rule 10b-5
  - EU follow-on: IACPM, ISDA, LIBA, LMA, TBMA – May 2005
    - Relevant legislation – Market Abuse Directive
Capital – Operational Issues

• Legally binding and enforceable contract
• Procedures and processes for residual risks

• Also:
  – Some regulators (eg, France) do not recognise protection if derivative subject to netting.
    • ISDA considers this in-appropriate
    • Important to consider all scenarios – not just default of protection buyer
Documentation
ISDA CDS Documentation – history

• ‘Prehistory’: adaptation interest-rate-swaps documentation
• 1998 ‘Long Form Confirmation’ (non-sovereign)
• 1999 ISDA Credit Derivatives Definitions
  – 2001 Supplements: Restructuring; Successors; Convertibles.

• **2003 Definitions**
  – including confirmation and novation templates

• Plus
  – Swaption (ie, option on CDS) confirmation
  – First-to-Default basket confirmation
  – Reference Entities: Monoline Insurer; US Municipal; Asset-Backed Securities
  – **Settlement ‘Matrix’** [Master Confirmations (corporate and sovereign)]
  – … and more in pipeline (eg, Constant maturity CDS)
Basic structure

• Protection scope
  – Obligations

• Credit Events*
  – eg, Bankruptcy, Restructuring

• Settlement*
  – Physical (Deliverable Obligations);
    • or Cash (Reference Obligation)

* NB Notices
‘Obligations’ (scope of protection)...

Direct

[Reference Obligation]

Guaranteed

(‘Downstream’ or ‘All’)

Typical terms for single-name, OECD-corporate trades:

<table>
<thead>
<tr>
<th>Obligation Category</th>
<th>Obligation Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Borrowed Money”</td>
<td>[None]</td>
</tr>
</tbody>
</table>

... & ‘Deliverable Obligations’

<table>
<thead>
<tr>
<th>Obligation Category</th>
<th>Obligation Characteristics (extended list)</th>
</tr>
</thead>
<tbody>
<tr>
<td>eg, “Borrowed Money”</td>
<td>[None]</td>
</tr>
</tbody>
</table>
Credit events

Typical corporate-trade events*

- Bankruptcy (no longer ‘action in furtherance of’)
- Failure to Pay (Payment Requirement, = $1m?)
- Restructuring (restrictions on Obligation/Deliverable?)
- Obligation Acceleration
- Obligation Default
- Repudiation/Moratorium (authorised officer? ‘hard’ event follows?)

*Favoured by Basel
Documentation – ops issues

• **Notice of Physical Settlement**
  – Delivery by e-mail (Parmalat volume/timing)

• **CDX ‘protocol’ – May-June 2005**
  – Collins-Aikman bankruptcy (→cash settlement)

• **Novations:**
  – No transfer without consent of remaining Party
Operations

a) Background
b) ISDA Strategic Plan
c) Solutions (FpML)
## Confirmations outstanding

**Average number of confirmations sent but not finalised**

*(Business-days’ worth of average confirmation volumes)*

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRAs</td>
<td>7.0</td>
<td>7.1</td>
<td>6.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Vanilla swaps</td>
<td>9.1</td>
<td>8.9</td>
<td>8.9</td>
<td>10.1</td>
</tr>
<tr>
<td>Non-vanilla swaps</td>
<td>12.4</td>
<td>12.1</td>
<td>11.3</td>
<td>11.6</td>
</tr>
<tr>
<td>Interest rate options</td>
<td></td>
<td></td>
<td>10.7</td>
<td>9.3</td>
</tr>
<tr>
<td>Currency options</td>
<td></td>
<td>8.2</td>
<td>7.6</td>
<td>6.2</td>
</tr>
<tr>
<td><strong>Credit derivatives</strong></td>
<td><strong>20.8</strong></td>
<td><strong>21.1</strong></td>
<td><strong>17.8</strong></td>
<td><strong>13.3</strong></td>
</tr>
<tr>
<td>Equity derivatives</td>
<td>14.3</td>
<td>12.6</td>
<td>12.5</td>
<td>9.3</td>
</tr>
<tr>
<td>Commodity derivatives</td>
<td>9.5</td>
<td>12.1</td>
<td>10.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: ISDA, Operations Benchmarking Surveys 2004, 2005
## Automation of trade-detail matching

*(Percentage of deal tickets – *not* weighted by trade volumes)*

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRAs</td>
<td>20</td>
<td>20</td>
<td>31</td>
</tr>
<tr>
<td>Vanilla swaps</td>
<td>11</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Non-vanilla swaps</td>
<td>3</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Interest rate options</td>
<td>3</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Currency options</td>
<td>23</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td><strong>Credit derivatives</strong></td>
<td>1</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Equity derivatives</td>
<td>10</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Commodity derivatives</td>
<td>5</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: ISDA, Operations Benchmarking Survey 2005

Advisory: Actually 1/3?
## Prioritisation factors

Weightings that firms assign to factors in determining which outstanding confirmations to prioritise

*(Ranked by most heavily weighted)*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percent monitoring</th>
<th>Average weight</th>
<th>(8 high, 1 low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days outstanding</td>
<td>93</td>
<td>7.1</td>
<td></td>
</tr>
<tr>
<td>Net present value</td>
<td>61</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Master Agreement Signed</td>
<td>67</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>Type of transaction</td>
<td>62</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Counterparty credit rating</td>
<td>46</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Counterparty type</td>
<td>64</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Collateral held / callable</td>
<td>49</td>
<td>4.1</td>
<td></td>
</tr>
</tbody>
</table>

Source: ISDA, Operations Benchmarking Survey 2005

b) Strategic Plan
A plan is born

• 2003 Annual Operations Summit… Strategy Group
  – Operational Heads, 15 major dealers

• Strategy paper published
  – “Going Forward: A Strategic Plan” (December 2003)

• Implementation Plan (March 2004)
  – “Moving Forward: An Implementation Plan”

- ABN Amro
- Bank of America
- BNP Paribas
- Barclays Capital
- Citigroup
- Commerzbank
- CSFB
- Deutsche Bank
- Dresdner Bank
- Goldman Sachs
- Greenwich Capital
- Lehman Brothers
- Merrill Lynch
- Mizuho Capital Markets
- JP Morgan Chase
- Morgan Stanley
- Royal Bank of Scotland
- Société Générale
- UBS
Stretch targets

Process
- Verification (T+0)
- Confirmation Despatch (T+1/5)
- Legal Execution (T+5/10)

OTC Product
- Interest Rate
- Credit
- Equity
- FX
- Commodity
- All OTC

Timeline
- December 2004
- June 2005
- December 2005
- December 2006

Source: ISDA Operations Strategic Plan, December 2003
ISDA Operations Summit

• **Immediate issues:**
  – Novations (solutions from Creditex, DTCC….)
  – Quarterly settlement
  – Long-term outstandings

• **Strategic issues**
  – Novations! – oral consent? / ISDA protocol
  – Confirmations: auto-matching/affirmation
  – (Portfolio reconciliation)
(Protocols)

• Multilateral agreement mechanism
• ISDA:
  – logs adherence letters
  – posts names of adhering parties on web-site
• Previous applications:
  – EMU (substitution of euro for francs, marks etc)
  – CDX / Collins-Aikman cash-settlement
c) Solutions (FpML)
Various vendors – common language

• Commercial initiatives (DTCC, Swapswire…; TriOptima)
  • ‘affirmation’, confirmation…; tear-ups

• FpML – Financial products Mark-up Language
  • Enables e-commerce for OTC derivatives
  • XML-based ‘lingua franca’ for OTC derivatives
  • Standardises ‘labels’ attached to data items
    • format supports product complexity and variety
• ISDA-supported since 2002
The FpML vision

Front-Office

Electronic Trading Network

Front-Office

<FpML> to Company A Systems

<FpML> to Company B Systems
FpML: product coverage

• **Scope:**
  - Rates, FX, Equity, Credit Derivatives – swaps & options
    • + Loans/deposits
  - ‘Risk’ inputs (yield curve); Collateral
  - Related tools (eg, Validation, Editor-viewer, User Guide)

• **Work in progress:**
  - Messaging
  - Structured Products
Docs & Ops....

Settlement ‘matrix’ – standard terms
## Physical settlement matrix (extract)

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>NORTH AMERICAN CORPORATE</th>
<th>EUROPEAN CORPORATE</th>
<th>AUSTRALIA CORPORATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Guarantees:</strong></td>
<td>Not Applicable</td>
<td>Applicable</td>
<td>Applicable</td>
</tr>
<tr>
<td><strong>Conditions to Settlement:</strong></td>
<td>Notice of Publicly Available Information Applicable</td>
<td>Notice of Publicly Available Information Applicable</td>
<td>Notice of Publicly Available Information Applicable</td>
</tr>
<tr>
<td><strong>Credit Events:</strong></td>
<td>Bankruptcy Failure to Pay Restructuring, if specified as applicable in the relevant Confirmation Restructuring Maturity Limitation and Fully Transferable Obligation Applicable</td>
<td>Bankruptcy Failure to Pay Restructuring Modified Restructuring Maturity Limitation and Conditionally Transferable Obligation Applicable</td>
<td>Bankruptcy Failure to Pay Restructuring Maturity Limitation and Fully Transferable Obligation Applicable</td>
</tr>
</tbody>
</table>

Version of March 7, 2005 (corporate).
http://www.isda.org/c_and_a/docs/Credit-Derivatives-Physical-Settlement-Matrix-20050307.xls
Credit Derivatives

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www.isda.org
Conferences, Documentation, Comment Letters