An Overview of the CMBS Business

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Head of Global Origination
James Im
Head of CMBS Trading

February 2008

LEHMAN BROTHERS

LBEX-WGM 000574
The Lehman Brothers Global Real Estate Business

Lehman Brothers’ Global Real Estate Group is a dominant player in all products and markets

- Strategic Advisory
- Private Equity
- Equity (IPO and Secondary)
- Preferred Equity and Convertibles
- Debt (Investment Grade and High Yield)
- Asset Sales

- Loan Origination for Securitization
  - Conduit
  - Large Loan (fixed and floating rate)
- CMBS Securitizations
  - Client and Proprietary Transactions
- CMBS Surveillance

- Bridge Loans
- Term Loans / Lines of Credit
- Bridge Equity

- Strategic Equity Investments
- Distressed Debt and Portfolio Acquisition
- Mezzanine Investments
- Loan Origination

- Equity and Equity Related Investments
- Mezzanine Related Investments

- CMBS
- REIT Equity
- Unsecured REIT Debt

- CMBS
- Corporate Debt
- REIT Equity
The Lehman Brothers Global Real Estate Business

The Global Real Estate Group is comprised of more than 400 professionals worldwide and is led by seasoned managers who have significant longevity both at Lehman Brothers and in the real estate industry.

GLOBAL REAL ESTATE GROUP
Mark Walsh, MD, Global Head
23 years Industry, 19 years Lehman
Lynn Gray, SVP, CAO
29 years Industry, 10 years Lehman

Europe
Global Head of Europe
Jim Blakemore, MD
14 years Industry, 9 years Lehman

Asia
Global Heads of Asia
Mark Gabbay, MD
14 years Industry, 6 years Lehman
Tom Pearson, MD
24 years Industry, 6 years Lehman

U.S.
Originations / Structuring / Underwriting / Surveillance / Risk Management / Trading
Kenneth Cohen, MD
21 years Industry, 21 years Lehman

Treasury
Risk Management
Jeffrey Goodman, MD
22 years Industry, 4 years Lehman
Donald Petrow, SVP
26 years Industry, 15 years Lehman

Securitization / Syndication / Lines / Bridge
Paul Hughson, MD
21 years Industry, 14 years Lehman
Overview of the CMBS Market

Trends in CMBS Product Supply

- Banner year in '06; Market Volatility hurts '07 (especially 2\textsuperscript{nd} half)

Issuance ($ bn)

- 2006 was a record year with $305 bn in total issuance of which $209 bn was domestic
- 2007 new issuance amounted to $318bn, of which $233 bn was domestic

Source: Commercial Mortgage Alert.

LEHMAN BROTHERS
### Outstanding Domestic CMBS Market: Transaction Types

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Current Balance ($B)</th>
<th>No. of deals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduit/Fusion</td>
<td>768</td>
<td>521</td>
</tr>
<tr>
<td>Agency CMBS</td>
<td>35</td>
<td>166</td>
</tr>
<tr>
<td>Large Loan/Short Term</td>
<td>38</td>
<td>72</td>
</tr>
<tr>
<td>Single Asset/Borrower</td>
<td>30</td>
<td>80</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>871</strong></td>
<td><strong>839</strong></td>
</tr>
</tbody>
</table>
Overview of the CMBS Market

### Domestic Issuance Breakdown: Fixed vs. Floating

<table>
<thead>
<tr>
<th>Year</th>
<th>Fixed</th>
<th>% of Issuance</th>
<th>Floating</th>
<th>% of Issuance</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>$37.22</td>
<td>92.01%</td>
<td>$3.23</td>
<td>7.99%</td>
<td>$40.45</td>
</tr>
<tr>
<td>1998</td>
<td>$64.67</td>
<td>83.20%</td>
<td>$13.06</td>
<td>16.80%</td>
<td>$77.73</td>
</tr>
<tr>
<td>1999</td>
<td>$48.85</td>
<td>83.93%</td>
<td>$9.35</td>
<td>16.07%</td>
<td>$58.20</td>
</tr>
<tr>
<td>2000</td>
<td>$38.10</td>
<td>77.91%</td>
<td>$10.80</td>
<td>22.09%</td>
<td>$48.90</td>
</tr>
<tr>
<td>2001</td>
<td>$61.72</td>
<td>83.09%</td>
<td>$12.56</td>
<td>16.91%</td>
<td>$74.28</td>
</tr>
<tr>
<td>2002</td>
<td>$56.72</td>
<td>85.23%</td>
<td>$9.83</td>
<td>14.77%</td>
<td>$66.55</td>
</tr>
<tr>
<td>2003</td>
<td>$72.18</td>
<td>82.22%</td>
<td>$15.61</td>
<td>17.78%</td>
<td>$87.79</td>
</tr>
<tr>
<td>2004</td>
<td>$95.01</td>
<td>86.59%</td>
<td>$14.71</td>
<td>13.41%</td>
<td>$109.72</td>
</tr>
<tr>
<td>2005</td>
<td>$154.02</td>
<td>88.67%</td>
<td>$19.69</td>
<td>11.33%</td>
<td>$173.71</td>
</tr>
<tr>
<td>2006</td>
<td>$181.98</td>
<td>87.03%</td>
<td>$27.13</td>
<td>12.97%</td>
<td>$209.11</td>
</tr>
<tr>
<td>2007</td>
<td>$212.25</td>
<td>91.05%</td>
<td>$20.87</td>
<td>8.95%</td>
<td>$233.12</td>
</tr>
</tbody>
</table>
Overview of the CMBS Market

As Expected, Delinquencies Tend To Rise With Age

NPL as % of Cutoff

- 6%
- 4%
- 2%
- 0%

Seasoning (Months)

图纸中展示了不同年份的NPL（Non-Performing Loans）曲线，显示了随着季节的增长，非还本付息贷款的比例上升的趋势。

- NPL (Non-Performing Loans) = 60+ day delinquencies and cumulative liquidations as % of original loan balance
- There is a clear seasoning pattern in credit performance across vintages
- Transactions encounter few problems in first 2 years post-securitization
- Cumulative non-performing rate:
  - 1998 vintage: 3.95% ; 2002 vintage: 1.62% ; 2006 vintage: 0.27%

LEHMAN BROTHERS
Overview of CMBS Market

Performance by Property Type of Loans Originated Since 1994

<table>
<thead>
<tr>
<th>Contributor</th>
<th>Outstanding Issuance</th>
<th>Delinq. &amp; Specially Serviced Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current ($B)</td>
<td>Pct. (%)</td>
</tr>
<tr>
<td>Self Storage</td>
<td>$14.1</td>
<td>1.97</td>
</tr>
<tr>
<td>Manu. Housing</td>
<td>13.3</td>
<td>1.90</td>
</tr>
<tr>
<td>Multifamily</td>
<td>123.6</td>
<td>17.35</td>
</tr>
<tr>
<td>Retail</td>
<td>225.6</td>
<td>31.34</td>
</tr>
<tr>
<td>Office</td>
<td>228.6</td>
<td>31.75</td>
</tr>
<tr>
<td>Industrial</td>
<td>40.3</td>
<td>5.48</td>
</tr>
<tr>
<td>Other</td>
<td>11.3</td>
<td>1.51</td>
</tr>
<tr>
<td>Credit Tenant Loan</td>
<td>3.2</td>
<td>0.46</td>
</tr>
<tr>
<td>Hotel</td>
<td>55.8</td>
<td>7.79</td>
</tr>
<tr>
<td>Healthcare</td>
<td>2.9</td>
<td>0.42</td>
</tr>
<tr>
<td>Total</td>
<td>$718.6</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Percentage of Current Balance
**Percentage of Original Balance

- The core property types (Retail, Multifamily, Office) comprise more than 80% of the collateral.
- Three of the non-core property types (Credit Tenant Loan, Hotel, and Healthcare) have shown worst performance.

As of January 2008
Source: Trepp, LLC; age adjusted by Lehman Brothers Surveillance Database.
Overview of the Commercial Mortgage Market

Total Commercial Mortgage Whole Loans


LEHMAN BROTHERS
Overview of CMBS Market

Types of Investors

<table>
<thead>
<tr>
<th>Rating Category</th>
<th>Types of Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaa</td>
<td>Most attractive to money managers, pension funds, banks, insurance companies and hedge funds</td>
</tr>
<tr>
<td>Aa and A</td>
<td>A small piece of total structure. Fewer buyers- mostly insurers and money managers</td>
</tr>
<tr>
<td>Baa</td>
<td>Appealing to insurance companies and other investors who do not necessarily mark to market. Appealing to CDOs.</td>
</tr>
<tr>
<td>Below Investment Grade</td>
<td>Suitable for higher-risk, longer-term bond funds. Appeal to institutions with real estate expertise and the ability to capitalize on pricing inefficiencies. Typically purchased special servicer/B-piece buyer</td>
</tr>
<tr>
<td>IOs</td>
<td>Yields attractive to institutions with long-term liabilities. Opportunity for money managers to take credit risk in AAAs. Less appealing to short-term investors.</td>
</tr>
<tr>
<td>Floating-Rate Classes</td>
<td>Most suitable for financial institutions with shorter liabilities. Attractive for LIBOR funders such as ABCP conduits; hedge funds.</td>
</tr>
</tbody>
</table>
Overview of the CMBS Market

As the overall market becomes larger and attracts more competition, Lehman remains one of the top lead underwriters of U.S. CMBS over the past fourteen years.

<table>
<thead>
<tr>
<th>Underwriter</th>
<th>Rank</th>
<th>Size ($B)</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morgan Stanley</td>
<td>1</td>
<td>$160.0</td>
<td>13.1%</td>
</tr>
<tr>
<td>Credit Suisse</td>
<td>2</td>
<td>$142.7</td>
<td>11.6%</td>
</tr>
<tr>
<td>Lehman Brothers</td>
<td>3</td>
<td>$140.1</td>
<td>11.4%</td>
</tr>
<tr>
<td>JP Morgan Chase</td>
<td>4</td>
<td>$122.7</td>
<td>10.0%</td>
</tr>
<tr>
<td>Wachovia</td>
<td>5</td>
<td>$112.1</td>
<td>9.2%</td>
</tr>
<tr>
<td>Deutsche</td>
<td>6</td>
<td>$97.5</td>
<td>8.0%</td>
</tr>
<tr>
<td>Banc of America</td>
<td>7</td>
<td>$89.3</td>
<td>7.3%</td>
</tr>
<tr>
<td>Merrill Lynch</td>
<td>8</td>
<td>$84.6</td>
<td>6.9%</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>9</td>
<td>$72.9</td>
<td>6.0%</td>
</tr>
<tr>
<td>Bear Stearns</td>
<td>10</td>
<td>$64.9</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

*As of January 7, 2008.
Source: Commercial Mortgage Alert*
Overview of the CMBS Market

Lehman Brothers Has Been A Consistent Strong Performer

<table>
<thead>
<tr>
<th>Contributor</th>
<th>Current Balance (Sbn)</th>
<th>60+ Day Delq (% of Original Bal.)</th>
<th>Original Bal. (Sbn)</th>
<th>Liq. (% of Original Bal.)</th>
<th>60+ &amp; Liq. (% of Original Bal.)</th>
<th>Age (months)</th>
<th>Credit Indicator (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bear Stearns</td>
<td>24,375,036,911</td>
<td>0.47</td>
<td>27,571,103,509</td>
<td>0.35</td>
<td>0.35</td>
<td>3.12</td>
<td>(0.89)</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>38,441,419,856</td>
<td>0.14</td>
<td>44,815,069,466</td>
<td>0.73</td>
<td>0.85</td>
<td>3.53</td>
<td>(0.77)</td>
</tr>
<tr>
<td>Bank of America</td>
<td>46,161,926,106</td>
<td>0.24</td>
<td>53,243,639,396</td>
<td>0.81</td>
<td>1.01</td>
<td>3.67</td>
<td>(0.60)</td>
</tr>
<tr>
<td>Wachovia</td>
<td>67,916,113,021</td>
<td>0.16</td>
<td>75,380,285,746</td>
<td>0.65</td>
<td>0.80</td>
<td>3.01</td>
<td>(0.44)</td>
</tr>
<tr>
<td>Deutsche</td>
<td>32,101,293,978</td>
<td>0.32</td>
<td>35,696,142,399</td>
<td>0.84</td>
<td>1.12</td>
<td>3.44</td>
<td>(0.35)</td>
</tr>
<tr>
<td>JP Morgan(Chase)</td>
<td>47,125,315,169</td>
<td>0.26</td>
<td>53,310,347,307</td>
<td>1.05</td>
<td>1.27</td>
<td>3.68</td>
<td>(0.40)</td>
</tr>
<tr>
<td>CSMC(Column)</td>
<td>53,250,343,153</td>
<td>0.30</td>
<td>66,101,611,982</td>
<td>1.80</td>
<td>2.04</td>
<td>4.50</td>
<td>(0.30)</td>
</tr>
<tr>
<td>Greenwich Capital</td>
<td>29,690,483,564</td>
<td>0.65</td>
<td>31,321,354,332</td>
<td>0.88</td>
<td>0.80</td>
<td>2.63</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Merrill Lynch</td>
<td>24,271,340,697</td>
<td>0.09</td>
<td>30,181,188,830</td>
<td>1.86</td>
<td>1.95</td>
<td>3.89</td>
<td>0.01</td>
</tr>
<tr>
<td>Total / Wtd. Avg. (Top 10)</td>
<td>406,894,375,613</td>
<td>0.26</td>
<td>471,164,481,100</td>
<td>0.93</td>
<td>1.16</td>
<td>3.63</td>
<td>(0.51)</td>
</tr>
<tr>
<td>Total / Wtd. Avg.</td>
<td>719,799,727,946</td>
<td>0.34</td>
<td>841,369,995,131</td>
<td>0.99</td>
<td>1.29</td>
<td>3.74</td>
<td>(0.46)</td>
</tr>
</tbody>
</table>

*As of January 1, 2008.
Source: Trepp, LLC; age adjusted by Lehman Brothers Surveillance Database.
(1) Excess of 60+ day delinquencies and cumulative liquidations over age implied rate.
Overview of CMBS Trading

History and Growth of Desk

- Lehman Brothers CMBS Desk has existed as a specialized trading desk since the mid 1980’s
  - Originally, the Desk began trading GNMA, FHLMC, FHMA and FHA paper
  - During the S&L crisis, the creation of the RTC jump started the trading of un-insured paper
  - Secondary trading was infrequent and most of our trading focused on only Lehman issued paper
  - By the mid 1990’s we started to see a substantial increase in liquidity as information flow improved in the market
  - At present, the Desk trades paper from all issuers

- Headcount on the desk has remained fairly consistent
  - Syndicate: Kee Chan, SVP
  - Trading: James Im, SVP – Head Trader
    David Cook, VP – Trader
    Elizabeth Palmer, Associate – Trading Assistant
  - Structuring: Mary Kunka, SVP
    Steven Chang, SVP
  - Surveillance: Wendy Pei, VP – Trading Assistant
Overview of CMBS Trading

Types of Products Traded

- Cash Securities
  - Fixed-rate transactions
    - Conduit/Fusion
    - Large Loan
    - Single Borrower/Property
  - Floating-rate (short term) transactions
    - Large Loan
    - Single Borrower/Property
  - Agency Multifamily
    - FNMA DUS (Delegated Underwriter and Servicer)
    - Project Loans
Overview of CMBS Trading

Types of Products Traded

◆ Derivatives Securities
  – CMBS Index Swaps
    • Swaps contracts based on returns of CMBS sub-sector of Lehman Brothers Global Family of Indices, created in Fall 1999
    • Swaps began trading off the CMBS Desk in September 2005
    • Trading volume:
      - 2006: $28.6 billion
      - 2007: $191.8 billion
    • AAA 8.5+ year (average life) is the most actively traded index
  – Single Name Credit Default Swaps (CDS)
    • Bilateral contract that enables an investor to buy/sell protection against the risk of default of a reference security, in this case, U.S. CMBS
    • Single name CDS began trading with regularity in the Fall of 2005
    • Trading volume:
      - 2006: $803.5mm
      - 2007: $3.8 billion
Overview of CMBS Trading

Types of Products

- Derivatives Securities (cont’d)
  - CMBX
    - Index of CMBS CDS launched in March 2006
    - Each CMBX series is constructed every six months and is comprised of 25 equally weighted CDS on reference obligations from 25 different fixed-rate, U.S. conduit/fusion transactions
    - Six indices per series (AAA, AAA AJ, AA, A, BBB, BBB-)
    - Trading volume
      - 2006: $3.5 billion
      - 2007: $30.0 billion
Overview of CMBS Trading

Risk

- Because the vast majority of our trading involves AAA rated securities, our view of risk is more spread risk than credit risk
- Approximately 92% of bonds traded are rated AAA
- No AAA bonds have ever suffered a principal loss
- Very few investment grade bonds have been downgraded below investment grade
- Mitigate spread risk through the use of a variety of hedging strategies

<table>
<thead>
<tr>
<th>Bond Type</th>
<th>FY 2005</th>
<th>FY 2006</th>
<th>FY 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>20.756</td>
<td>31.326</td>
<td>45.108</td>
</tr>
<tr>
<td>NON-AAA</td>
<td>1.915</td>
<td>2.767</td>
<td>2.988</td>
</tr>
<tr>
<td>IO</td>
<td>0.714</td>
<td>0.705</td>
<td>0.819</td>
</tr>
<tr>
<td>AGENCY</td>
<td>1.318</td>
<td>0.443</td>
<td>0.263</td>
</tr>
<tr>
<td>Total</td>
<td>24.703</td>
<td>35.242</td>
<td>49.178</td>
</tr>
</tbody>
</table>

(volume traded in billions)
Overview of CMBS Trading

Revenues

◆ Revenue is primarily generated by capturing greater market share than our competitors in cash and index swap trading
  – Optimal client penetration achieved by providing the most competitive quotes in Lehman issued CMBS paper and Lehman CMBS Index swaps contracts
  – Always striving to maintain our #1 position in customer satisfaction as evidenced by our #1 ranking by Greenwich Associates Survey over the last five years
  – Leveraging our preeminent surveillance and research capabilities in CMBS to provide the best client service possible

◆ Additional revenue realized by executing trades and taking positions (long/short) in derivative products
  – On occasion, the Desk will execute trades, based on fundamental analysis performed by the traders along with our CMBS Research Team, to take advantage of inefficiencies that develop between the cash and derivatives markets
  – Vast majority of these positions are taken in respect to the overall hedge profile for our cash securities and whole loan positions on our balance sheet
Overview of CMBS Trading

Revenues Via Market Share
2007 Greenwich Associates Survey- Relationship Quality vs. Secondary Market Share

* Note: The Greenwich Quality Index score is based upon a normalized composite of all qualitative evaluations. Difference from the mean shown here.
Overview of CMBS Trading

Purpose of Transactions

◆ Cash Securities Market
  – Primary responsibility is to support our new issue platform by providing optimum liquidity to our clients
  – Strive to always be best bid/offer for Lehman issued paper

◆ Derivative Securities Market
  – CMBS Index Swaps
    • Function as a market maker in swaps on the CMBS sub-sector of Lehman Brothers Global Family of Indices, a proprietary index
    • Strive to provide the tightest markets and seize the most market share in Lehman CMBS Index Swaps trading
    • Hedge spread risk for cash securities and whole loans on our balance sheet
  – CMBX
    • Operate as a market maker in the CMBX indices for our clients
    • Hedge spread/default risk for cash securities and whole loans on our balance sheet
  – Single Name CDS (Credit Default Swaps)
    • Assist core CMBS clients in taking long/short positions on specific classes of transactions that cannot be easily accomplished via the cash market
Overview of CMBS Trading

Trading Strategies

◆ **Cash Securities Market**
  - The Desk’s primary responsibility is to support our new issue business by providing the best liquidity in the secondary market to those clients that purchase Lehman Brothers issued paper in the primary market.
  - Trading strategies are developed together by the traders, syndicate and research team but the Desk’s main responsibility in supporting our new issue platform has always been the focal point.

◆ **Derivatives Securities Market**
  - For CMBS Index Swaps and CMBX, the Desk functions simply as a market maker who’s main goal is to capture revenue in the bid/ask of those products
  - For Single Name CDS, the Desk operates as liquidity provider for our core clients looking to take long/short positions on specific bonds synthetically
  - Occasionally, with analysis and input from our CMBS Research Team, strategies are developed to take advantage of market inefficiencies that exist between the cash and derivatives markets

◆ **Senior Management is made aware of any significant changes in trading strategy but the CMBS Trading Desk remains primarily responsible for development of strategies**
  - Risk Management does not approve trading strategies
Overview of CMBS Trading

Front Office Trading and Trade Entry Systems

Lehman Brothers Proprietary Systems

◆ Risk Analytics for Mortgage Products (RAMP)
  – Integrated trading, pricing and risk management system for all positions/trades (cash, derivatives, whole loans)
  – Provides daily mark to market pricing for positions and corresponding hedges utilizing Lehman’s proprietary analytics

◆ Smart Ticket
  – Lehman’s derivatives trade capture system
  – Provides straight-through-processing to Lehman’s risk system. Assigns unique Global ID’s to all derivative trades

Non-Proprietary Systems

◆ Bloomberg – analytics used industry wide to price CMBS bonds for trades. Underlying collateral cashflows modeled at deal closing with information provided by underwriter. Additionally, Bloomberg’s messaging functionality is the primary communication tool between traders, salespeople, clients and brokers in the industry

◆ Trepp – supplier of cashflow models to Bloomberg and RAMP

◆ Infinex – alternate third party cashflow and analytics provider. Used on occasion to value bonds when models are not available on either Bloomberg or Trepp