Rebuilding Real Estate Capital Markets: MBS - 101

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Goals of Presentation

- Disclaimers
- MBS 101
- Size of Market
- Recent Activity
- Financial Regulations Impacting MBS (Dodd-Frank)
- CDO 101
- CDS 101
- Expected Changes / Outlook
- Greer’s Forecast / Signs
What is a MBS?

Mortgage Backed Security

- Type of pass-through security
- Mortgages are securitized into a pool. Rights to the revenue from the mortgages are divided into many smaller pieces (tranches, strips, slices), each with differing priorities. Proceeds are distributed to investors based on the priority of their tranche.
- During 2006-2007, accounted for slightly less than 40% of all commercial real estate lending, and higher rate for residential.
Players in “Simple” MBS

Lots of Real Estate Loans are Pooled Together

Rating Agency Rates Bonds
Gives loss forecast & amount required for “AA” rating

Investment Bank Securitizes Loans (like forming Corporation) and Issues MBS

Pension Fund Buys most AAA Bonds, Hedge Fund get most of rest
MBS Outstanding’s in U.S. - Dropping

Source: Federal Reserve Board, Z1-L.124, L.125, L.126 NSA, Greer Advisors, LLC
Global CMBS Issuance – Not Recovered

Source: CMAalert 8/11, Greer Advisors, LLC
# CMBx Data

<table>
<thead>
<tr>
<th>Tranche</th>
<th>Yield</th>
<th>Suboard</th>
<th>Weight of Debt</th>
<th>Contribution to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>2.84%</td>
<td>29.76%</td>
<td>70.24%</td>
<td>1.99%</td>
</tr>
<tr>
<td>AJ</td>
<td>3.71%</td>
<td>12.70%</td>
<td>17.06%</td>
<td>0.63%</td>
</tr>
<tr>
<td>AA</td>
<td>5.33%</td>
<td>10.63%</td>
<td>2.07%</td>
<td>0.11%</td>
</tr>
<tr>
<td>A</td>
<td>9.76%</td>
<td>8.00%</td>
<td>2.63%</td>
<td>0.26%</td>
</tr>
<tr>
<td>BBB</td>
<td>27.43%</td>
<td>4.72%</td>
<td>3.28%</td>
<td>0.90%</td>
</tr>
<tr>
<td>BBB-</td>
<td>28.77%</td>
<td>3.68%</td>
<td>1.04%</td>
<td>0.30%</td>
</tr>
<tr>
<td>BB</td>
<td>102.47%</td>
<td>2.69%</td>
<td>0.99%</td>
<td>1.01%</td>
</tr>
<tr>
<td>Unrated</td>
<td>176.00%</td>
<td>0.00%</td>
<td>2.69%</td>
<td>4.73%</td>
</tr>
</tbody>
</table>

*Notes:*  
1. The table is somewhat complicated, as evidenced by the numerous footnotes. Several conclusions can be drawn. 1) If the "implied overall debt yield" is much greater than loan rates in the marketplace, the CMBs market cannot recover because the required yields are too high to make debt affordable to borrowers. 2) When the spread between AAA and BB tranches is above 500 bps (now at 9.963 bps), the market can’t recover because of risk aversion for lower-rated tranches. As a point of reference, January 2007 AAA-BB CMB spreads were around 65 bps. Lastly, the yields for each tranche provide tremendous insight into the required yields for each layer in the capital stack.  
2. Markit™ Data and Calculations based on close of 8/1. Swap (10Yr) as of 8/12.  
3. Coupon and Price data were from Markit™ for AAA Senior through BB bonds. Markit™ data was used as part of the calculations by Greer Advisors, LLC, to determine Spreads. Subordination levels were from Markit™.  
4. Profit/arbitrage opportunity for the issuer was ignored.  
5. The yield spread for "unrated" classes were based on (BBB-yield minus BB yield) times 1.0, round to the nearest bp. Class-A property equity yield was assumed equal to the BBB- (last investment-grade piece) yield rounded to the nearest 100 bp. Class-B property equity yield was assumed equal to the BB yield, rounded to 100 bps.
What is a CDO?

Collateralized Debt Obligation

- Type of pass-through security

- CDOs are securitized debt pools, similar to CMBS, but debts can be CMBS/CDO paper, car/boat/plane loans, credit cards, or virtually any type of debt obligation. Rights to the revenue from the obligations are divided into many smaller pieces (tranches, strips, slices), each with differing priorities. Proceeds are distributed to investors based on the priority of their tranche.

- Tough to gauge accurately, but most experts believe these have accounted for 5-10% of all commercial real estate lending the past few years.
Financial Regulations

Dodd-Frank Wall Street Reform & Consumer Protection Act

- 16 Titles – See Summary on Wikipedia
  - 243 Rules to be created (reportedly 62% not done)
  - 67 Studies required (most are not done)
  - 22 New Periodic Reports

- Restructure of Regulators, elimination of OTS
  - Financial Stability Oversight Council (New)
  - Office of Financial Research (New)

- Keys for Commercial Real Estate:
  - Rating Agency Reform
  - Securitization Reform (nominal change due to QIB clawbacks)
  - Derivatives – minimal change thus far due to “netting”
What is CDS?

Credit Default Swap

- A bilateral contract where two parties agree to trade the credit risk of a third-party. A protection buyer pays a periodic fee to a protection seller in exchange for a contingent payment by the seller upon a default or failure to pay. Once triggered, the seller either takes delivery of the collateral (e.g., bond, note) or pays the buyer the difference between the par value and recovery value of the bond (cash settlement).

- They resemble an insurance policy, as they can be used by debt owners to hedge against credit events.

- Warren Buffet called these “Weapons of Mass Destruction”

- ......................counterparty???
Players in “Simple” CDS

Business Issues Bonds

Rating Agency Rates Bonds

Side Bet 1

Bonds initially rated too poor for market, eg “BB”

Gives loss forecast & amount required for “AA” rating

Side Bet 2

Side Bet 3

Investment Bank issues CDS (aka Credit Enhances Debt)

Enough to make BB = AA, if debtor fails, IB buys bonds

Pension Fund Buys Bonds with CDS enhancement

Thinks it’s AA investment
Credit Default Swaps

Source: ISDA, Greer Advisors, LLC
Interest & Currency Swaps

Source: ISDA, Greer Advisors, LLC
Future - Mortgage Backed Security

- If NSROs don’t “Get It” Feds could replace them
- ‘Til MBS Returns, Real Estate markets WILL NOT recover
- Most banks ARE NOT in the business of holding debt
- New MBS WILL EMERGE with terms as follows
  - No “quick buck” investment banks/mortgage bankers
  - Issuer holds 1-5% of pool as “1st Loss / Good Faith” position
  - 60-80% of pool will be AAA, not 90+% 
  - Buyers of paper will “re-underwrite” pools, regardless of
Future of Banking

Past Three Years have Shown largest lending decline in history - see FDIC QBP

CMBS Loss Rates – Still All Time Highs, Banks better

Separation of “Best of Best” Class A vs. Class B/C

Deleverage – Expect More for Class B/C

More Restrictive Covenants for REITs, CMBS

“R” word for Loans (recourse)

Capital Ratios – Leverage – QE2
Conclusions

- MBS Market – Spreads will remain 10-100x higher than 1/07.
- MBS – Very Slow Return. Need New Business Model
- Many Lenders Closed, Stopped or Reduced Lending
- Insurance Companies and Fannie/Freddie Lenders are Active
- CASH IS KING! Cap/Yield Rates Have RISEN for Class B/C
- Value Growth will Lag Rent Growth – by a Lot
- Rents / Vacancies Remain better than early 1990s
- Real Estate Cost is NOT the Largest Cost of Business!!!
Quote of the Day

“…prediction is very difficult, especially when it’s about the future…”

NY Yankees #8, Yogi Bera

Niels Bohr
Nobel Laureate, 1922
Atomic Structure / Quantum Mechanics
Greer’s 3-Year Forecast as of 8/15/2011

- Global Economy Heals = Recovery (Barbell)
- Cap Rates will Rise 0.5-2% during 2011/12, almost all in class B/C. Trophy Class A will remain low – Flight to Quality
- Margins (to 10 Yr Treasuries or LIBOR) will rise and settle at 300±50 bps over 10 year Treasuries, but might over-correct in the short run, say 10Yr 400+ bps.
- Rent Growth Lag CPI growth by 1-2%, expect more Yrs 2-5.
- Values appear to have stabilized. They fell from through mid-2011. Individual Market Performance will varied widely. (10-30% difference in Top vs Bottom)
- Declines: #1=Retail; #2=Office & Industrial; then Apartment
- Change Creates Opportunities – Build Businesses
- Complete Barbell Forecast
Greer’s Recovery Signs – Prereq’s to Recovery

- √ CDS Exposure under $25 Trillion (i.e. under 50% of peak)
- √ Stable or Decline in CMBx Yield Spreads for 6 weeks
- Re-emergence of CMBS market
  New CMBS Market will include:
  Issuer Keeps 1-5% 1st-loss piece
  AAA Subordination near 30%....
  AAA is 70%, not 90% of issue
- √ REIT Market Capitalization (Total Value) Stabilizes or Increases for 6 months
- Consumer Confidence Rises and Stays Above 70 for 6 months
  As of 6/28/11 (last report) index at 58.5 (1985=100)
- Risk Curve (AAA Sr. vs BB) flattens to under 500 bps. As of 8/15/11, CMBx spread stands nearly 100 pts (3.44 v 103.07)
Questions / Answers

Greer Advisors, LLC

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