US CREF 4Q 07: Improving Loan Quality Helps Counter Weaker Fundamental Outlook

AUTHORS:

Tad Philipp
Managing Director
(212) 553-1992
Tad.Philipp@moodys.com

Nick Levidy
Managing Director
(212) 553-4595
Nick.Levidy@moodys.com

Paolo Obias
Managing Director
(212) 553-1349
Paolo.Obias@moodys.com

Sally Gordon
Senior Vice President
(212) 553-4473
Sally.Gordon@moodys.com

CONTACT:

Brett Hemmerling
Investor Liaison
(212) 553-4796
Brett.Hemmerling@moodys.com

WEBSITE:

www.moodys.com

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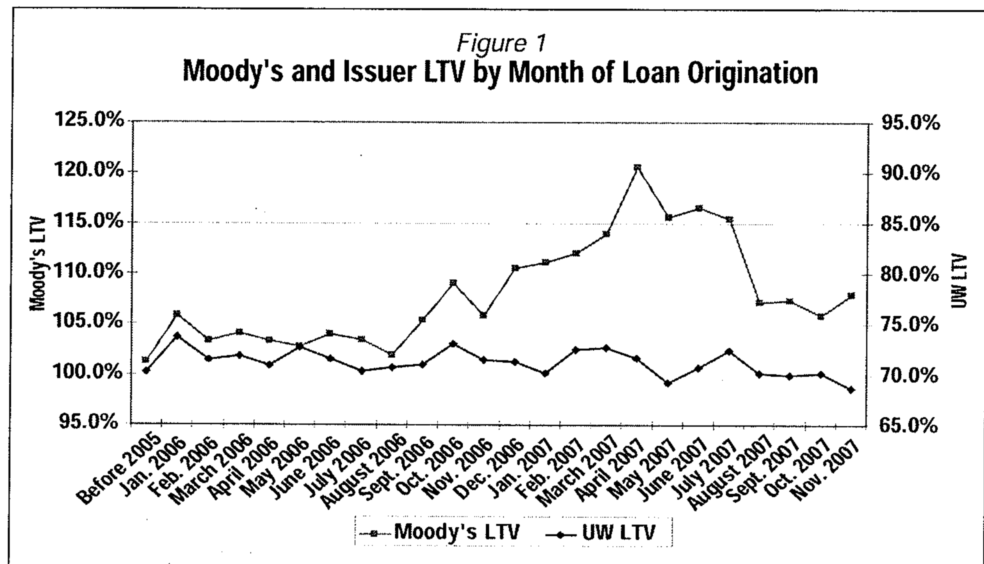
CMBS SUBORDINATION LEVELS - BALANCING FIXED PERFORMANCE GOALS AND A CYCLICAL BUSINESS

Commercial real estate is a cyclical business, but Moody's targets for rating performance remain constant. For example, subordination levels are sized with the expectation that roughly 6% of Baa3 bonds will default over a ten year period. Given that rating targets are fixed but the business is cyclical, subordination levels need to move over time to reflect a continuously changing forward outlook.

Figure 1
Moody's and Issuer LTV by Month of Loan Origination



Moody's Investors Service

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Adjusting subordination levels to reflect outlook changes can be a challenge, particularly when it involves a shift in direction. 2007 of course was a landmark year in this regard, with Moody's demonstrating that CMBS subordination levels can indeed move up after nearly a decade of heading down.

There will always be differences in performance of loans and bonds by vintage. But while determining each vintage's exact position in the credit cycle is difficult, not trying to do so at all could lead to even greater variance in performance. Performance over the last 10 years has exceeded almost everyone's expectations, including ours. But prior good performance is not a "piggy bank" to be used against potentially weaker future performance.

When Track Records and Outlooks Send Conflicting Signals

One of the biggest challenges with calibrating subordination levels to the credit cycle is interpreting the conflicting signals that track records and outlooks can send. For example, at the bottom of the cycle the track record tends to look bad but the outlook is favorable. And at the top of the cycle it can be the opposite - the track record looks good but the outlook is less than rosy. There is always a lot more clarity looking backwards than forwards, but for commercial real estate track records may not be the best way to align subordination and risk. For example, models based on performance for the last 10 years implicitly assume continuation of the environment that created the track record, i.e. plenty of liquidity and rising property values. Moody's, however, viewed the last 10 years for commercial mortgage performance more along the lines of "as good as it gets" than as a new paradigm.

Those with forward looking approaches, such as Moody's, may take actions contrary to what is suggested by the track record but in advance of performance shifts. It's at inflection points in the market that differences between forward and backward looking market participants are most likely to be exposed.

While the underlying principles behind Moody's CMBS rating approach remain consistent, the tools used to analyze portfolio diversity and the expected future performance of loans have become more sophisticated. Our models remain a work in progress as we constantly look to incorporate the best available data and methodologies. For loan level analysis we have increasingly turned to CMM, a forward looking model using an econometric framework. We began to include CMM outputs in our presale reports in late 2007. For portfolio analytics we have increasingly turned to Monte Carlo simulation, which is able to look at the diversity implications of multiple variables including number and size of loans, leverage, asset class and location simultaneously.[1]

The Landscape Last April

By early 2007 it was clear to Moody's that the quality of underwriting was declining, and at an accelerating pace. Progressively riskier loans can't keep being placed into the same capital structure without credit implications. At some point it has to give, and for Moody's that point came in April.

Figure 1 compares Moody's and issuers' LTVs for conduit loans by month of loan origination. It illustrates the rapidly growing gap that was occurring in early 2007 that signaled Moody's that the time had come to stop talking about frothiness and start raising subordination levels.

We show leverage by month of origination, as the usual conduit origination-to-securitization process started getting out of sync in mid-2007. Many of the most aggressive loans from that period found their way into the market in late 2007, and some can still be seen in early 2008 deals.

While we didn't know when the liquidity bubble would burst, we knew that aggressively underwritten loans would be more prone to default when it inevitably did. Other market participants ramped up their share of late 2007 vintage deals, while Moody's was moving in the opposite direction. In a few years, if not sooner, the consequences of these decisions will become evident.

1 We make as transparent as possible any changes in our approach, and the ones described above, were discussed in detail in a Special Report issued late last year, "US CMBS: EXPANDED USE OF MOODY'S COMMERCIAL MORTGAGE METRICS IN RATINGS AND PRESALES".

CREDIT OUTLOOK - BACK TO BASICS

The softening economy and turbulent real estate capital markets will likely make 2008 a challenging year for CMBS performance. While an increase in the delinquency rate is anticipated, the order of magnitude is not expected to come close to the levels that may be seen in some other structured finance sectors, nor to those seen during the early 1990's in the last major commercial real estate downturn, barring significantly worse developments than now envisioned.

The year 2008 will see the continuation of underwriting excesses being wrung out of the system. Back to basics is the order of the day, with lower loan leverage and simpler deal structures prevailing in particular.

During 2007, the credit pendulum swung from too easy to too tight. As a result, 2008 will see increased instances of borrowers experiencing re-financing problems, especially borrowers who took out highly leveraged loans with short maturities at the peak of the market. However, we believe the noise generated by such cases is inconsistent with the broader underlying strength of the sector.

Amidst clear signs of underwriting improvement, we expect property market fundamentals to weaken, albeit from a relatively strong base. In the context of Moody's forward-looking approach to CMBS credit risk, these two factors may roughly offset each over the near term. Therefore, we don't envision much if any tightening of subordination levels at this juncture, given that certain threshold levels are necessary as buffers for hard-to-predict, loan-specific (that is idiosyncratic) risks. "Surprises" in commercial real estate such as tenant defaults can occur at any time, but are more likely during an economic downturn.

The year 2008 will be one of performance tiering. For many years the track records of all participants looked the same — great. But this result was mostly an artifact of steadily increasing property prices and a "rising tide lifting all boats." 2008 will reveal who got credit right and who didn't. For those market participants that loaded up on aggressively underwritten 2007 deals, their bill may come due sooner rather than later.

Despite these challenges, CMBS will endure because its model for sizing and distributing risks makes intrinsic sense. And while the other major lenders — banks and life companies — remain active, they have constraints as to how much additional commercial mortgage debt they can take on balance sheet.

ISSUANCE OUTLOOK - THE BIG CHILL

CMBS issuance has historically been difficult to forecast, this year more than ever. The biggest variable in forecasting 2008 issuance is estimating the point at which securitization shops resume active lending with a CMBS exit in mind. While the last few years got off to a flying start due to bulging origination pipelines, this year promises to begin with more of a trickle.

Each passing week of the liquidity crunch results in one less week that can contribute to 2008 issuance volume. 2008 may see $100 billion or less of CMBS issuance volume, well less than half the $230 billion recorded in 2007 and a reversion back to about 2004 issuance levels. Back in 2004 $100 billion was a record and considered robust; it seems small only in comparison with the surge of liquidity from 2005 through mid-2007.

Also contributing to our expectations for reduced volume is the likely decline in property values. This can lead to less property transaction velocity and less defeasance, both of which have been significant drivers of recent issuance.

The year 2008 may see a barbell-shaped issuance pattern, with the beginning comprised of clearing out what's left of the 2007 pipeline, a lull in the middle of the year reflecting the crunch, and finishing with some back-loaded new issuance.

The big chill at this time arises from a market standoff. Issuers are hesitant to make new loans until they are confident in the prices it takes to clear all the bonds. But investors are reluctant to resume buying bonds until spreads settle down.

The big chill is in part due to the market's high level of dependence on mark-to-market investors. Such investors understandably don't want to see their position immediately and significantly impacted by rising spreads, but their sitting on the sidelines contributes to further weakness.

The beginnings of a floor appear to be taking shape in the form of increased capital raising by opportunity funds. At this juncture equity appears easier to raise than debt, and billions have already been lined up. Some players who were sitting on the sidelines during the recent froth are once again being enticed to enter the market given attractive risk-adjusted returns.

At this point, prospects for a near-term return to health are dimmer for floating rate CMBS and CRE CDOs than they are for the fixed rate market, given that much of their issuance was picked up by a category of investor (structured investment vehicles) that is now largely absent from the market. Some of the floating rate loans that securitization shops had made intended for CMBS execution have instead been syndicated in the bank loan market.

Outstanding commercial and multi-family debt totals approximately $3.2 trillion, with banks holding 42%, CMBS comprising 24%, and life company portfolios having 9%. CMBS has reached such a significant scale that banks and life companies are unlikely to be able to step in and fully absorb a major reduction in CMBS volume.

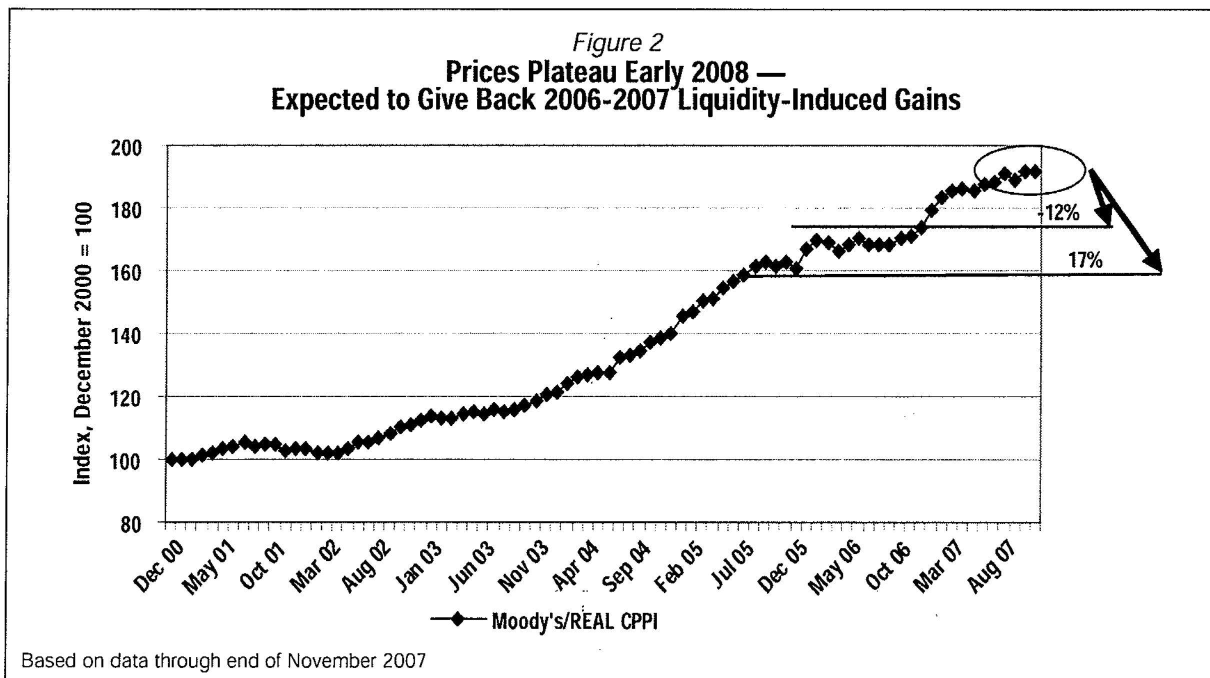
For banks that have traditionally focused on commercial real estate lending, their exposure as a percentage of capital is near an all-time high and they have limited capacity to add more, especially more of the fixed rate debt that comprises the bulk of CMBS. Life companies are the primary competition for CMBS on the fixed rate side, but their share has shrunk over the last decade as the share of CMBS has grown. With CMBS now more than twice the size of life company portfolio holdings, and with life companies managing to asset/liability matching considerations, they too are unlikely to be able to fully supplant CMBS.

PROPERTY PRICES TO RETRACE RECENT GAINS

Given the reduced availability and higher cost of debt, which is a key component of acquisition economics in commercial real estate, it appears likely that much of the liquidity-fueled run-up in property prices from the last few years will be rolled back. This is illustrated in *Figure 2* below, and suggests a decline in the range of 12% to 17% if prices revert back to where they were between mid-2005 and late 2006.

Figure 2

Prices Plateau Early 2008 — Expected to Give Back 2006-2007 Liquidity-Induced Gains



Based on data through end of November 2007

With two of the last three months registering declines on the Moody's/REAL CPPI index, we see a plateau forming that will likely be followed by an extended period of retraction. As discussed below, a contributing factor to downward price pressure is that property fundamentals will be challenged by the softening economy, making buyers less likely to pay for upside in cash flows.

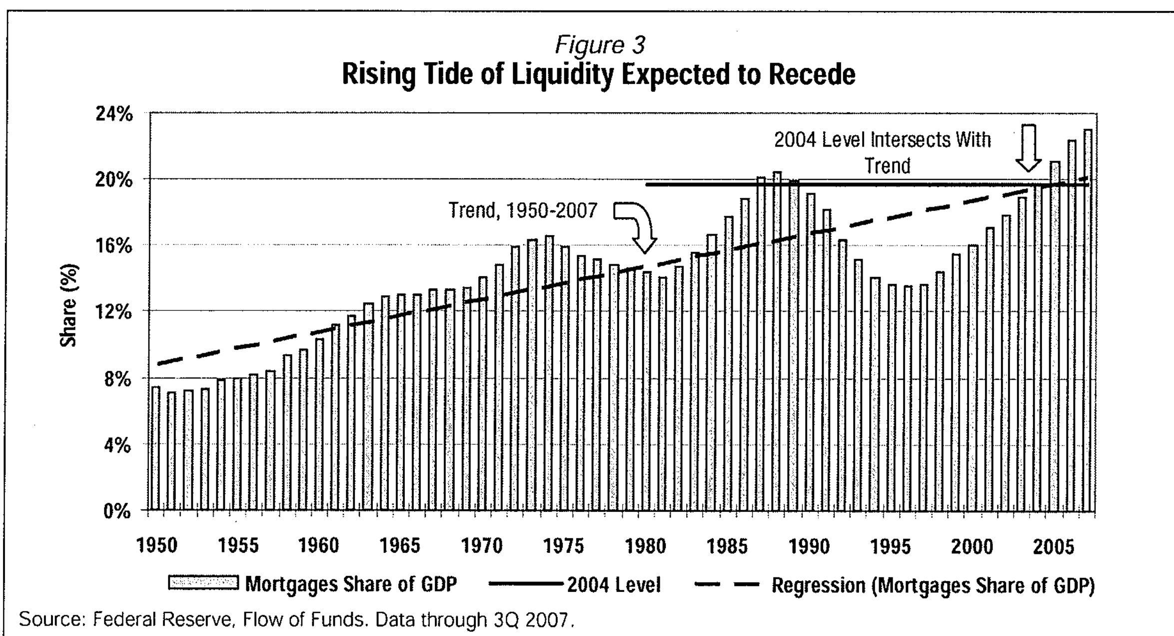
At the moment there is a bit of a disconnect between buyers and sellers that is delaying the price discovery process. Many buyers are looking for discounts, while many sellers are unwilling to recognize losses (or smaller than desired gains). Indeed, fewer property owners are selling unless they have to, and some owners are lengthening their intended holding periods. The market may not see the full impact of downward price movements until foreclosures pick up and lenders sell at market-clearing prices.

THE LIQUIDITY BUBBLE IN PERSPECTIVE

Figure 3 illustrates the relationship between commercial mortgage debt outstanding and GDP since 1950, a period that encompasses multiple real estate cycles. The tide-like pattern of liquidity flowing into and receding from the real estate sector is clearly visible, as is the progression of higher peaks with each new cycle. Higher peaks are most likely due to the increased role the service sector plays in the overall economy, and the role that commercial real estate plays in providing space for service use (offices, stores, hotel rooms etc).

Also clear is that when liquidity recedes it can withdraw to a level below that of the preceding peak. A roll back to 2004 levels, consistent with long term trends, would result in squeezing approximately 15% of the leverage out of the system on a relative basis and aligns with our view on downward property pricing.

Figure 3
Rising Tide of Liquidity Expected to Recede



Source: Federal Reserve, Flow of Funds. Data through 3Q 2007.

It's Not the Early 1990's

Some have asked how present market conditions compare with those leading up to the last major real estate downturn in the early 1990's. Like the early 1990's there is a credit crunch. This time, however, large portions of the lending market remain functional and waves of distressed selling, with its further dampening impact on the market, are a lot less likely.

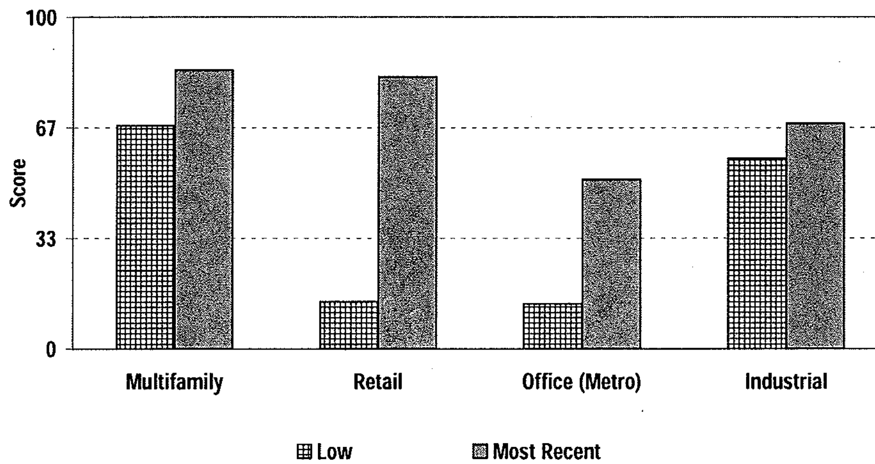
The early 1990's followed an extended period of excess capital being deployed into commercial real estate, much of which was used for construction. Excess construction led to rent declines. This time, the excess capital deployed in the commercial real estate market was used primarily to bid up prices. While this leaves room for prices to soften, as discussed above, they should do so in a less stressful manner than during the simultaneous leverage unwind/rent plunge that occurred in the early 1990's.

Figure 4 below compares the present fundamental outlook using Red-Yellow-Green™ (RYG) with that of the low points from the mid 1980's, which lead up to the 1990's delinquency increase. RYG scores markets on a scale of 1-100 with 100 representing a very healthy supply/demand balance, one in which rents are likely to go up. A score of 1 represents the opposite, a situation in which rents are likely to go down. The data underlying *Figure 4* rolls up all markets covered by RYG on a national basis into a composite number.

Each of the scores for the four major asset classes is now higher than it was in the mid 1980's. Importantly three of the four sectors are presently green, and the two sectors most heavily represented in CMBS, retail and office, are multiples of their scores at their low points in the 1980's.

Much of the more positive present outlook can be attributed to greater discipline in construction lending by commercial banks. While demand may well soften this year it should not, except in a few markets, be met with a wave of supply.

Figure 4
**Red-Yellow-Green Scores:
Low from 1985-86 and Most Recent**



Low score was in 1985 for multifamily, office and industrial;
in 1986 for retail. Most recent based on data through 3Q 2007.

2008 will be a year where market selection in making loans matters a lot. Commercial real estate is integrally linked to the health of local economies, which generate the jobs that fills office buildings, the income used to shop in malls, etc. Moody's analysis increasingly takes local property market outlooks into account via Commercial Mortgage Metrics (CMM). While the DSCR and LTV credit metrics of many loans look similar on the surface we would, for example, strongly prefer to have a 1.30 DSCR loan in a market with rising rents than in one in which rents are expected to fall. Our tools help us differentiate loans by market position, and we reflect property market risk in our ratings.

It's Not Sub-Prime Either

The other comparison we are frequently asked to make is with the sub-prime residential market. The commercial mortgage business is very different from sub-prime residential. Commercial loans tend to be much larger (typically in the millions), are made to sophisticated borrowers, and are sized based on the cash flows of the collateral property. Commercial loan underwriting was clearly stretched during the recent period of rising property prices but, as one of the most transparent businesses, the degree of stretching was readily observable. Moody's among others frequently commented on it.

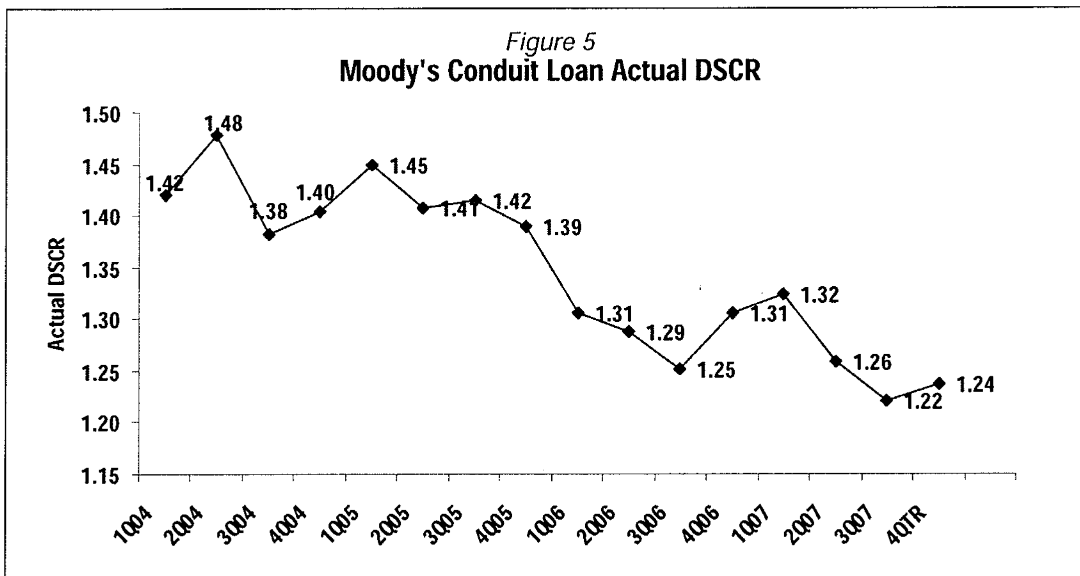
CONDUIT LOAN QUALITY IMPROVES - HELPS COUNTER WEAKER FUNDAMENTAL OUTLOOK

Most major credit metrics on Moody's rated conduit deals improved during the 4th quarter. This is an encouraging sign after years of erosion, and especially helpful with fundamentals poised to soften. While an important step in the right direction, more remains to be done for securitized loans to be considered well underwritten.

Readers are cautioned that the statistics that follow relate only to Moody's rated deals. With our 4th quarter market share well below 50%, Moody's-based statistics may not fairly represent the profile of the industry as a whole.

Figure 5 illustrates recent trends in Moody's average actual DSCR, which measures the relationship between Moody's cash flow and actual debt service. It is one of the two primary statistics we use to track loan leverage. It provides an indication of term default risk; our other major credit metric, Moody's LTV, serves largely as a relative indicator of balloon risk.

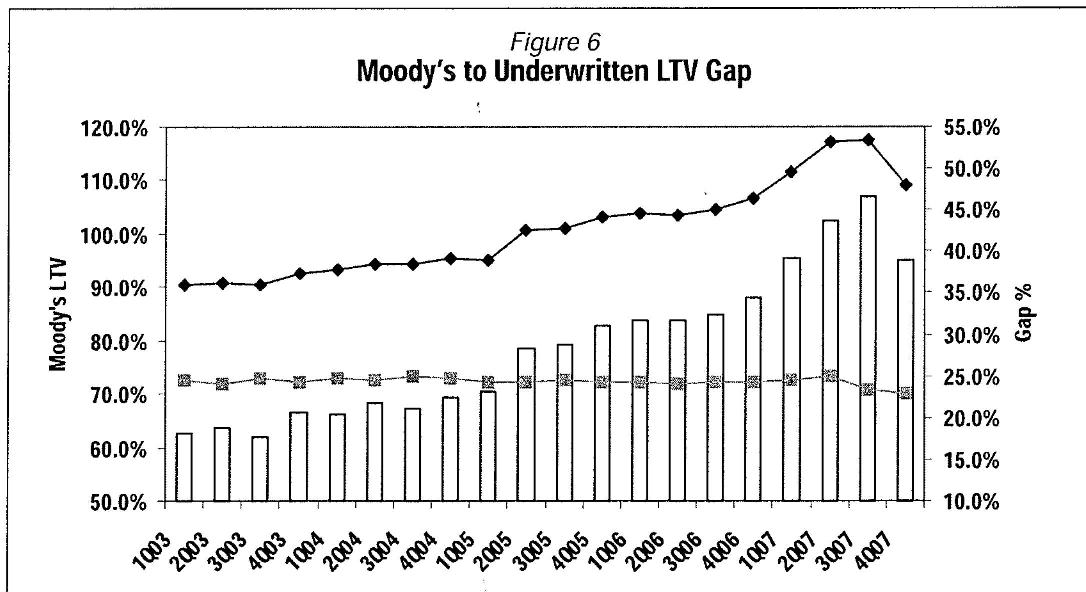
During 4Q 2007 Moody's actual DSCR had a slight up tick to 1.24, a small improvement from the record low level of 1.22 the prior quarter. Still, the protection afforded by 4Q 2007 DSCRs is roughly half the level of the same period just three years earlier.



Moody's Conduit Loan LTV Records Sizable Drop in 4Q 2008

As shown in *Figure 6* below, conduit loan to value ratios as measured on a Moody's stabilized cap rate basis fell to 109.0% for 4Q07 Moody's rated conduit deals, a sharp drop from the 117.5% level of 3Q07. After three consecutive quarterly periods above the 110% LTV mark, the 4Q 2007 level rolls back nearly a year's worth of leverage increases.

Underwritten LTVs for the same period fell to 70.1%, one of the lowest levels of recent years. 3Q 2007's record 46.7 point gap between underwritten and Moody's LTVs closed to 38.9% in 4Q 2007.



Cap Rates Used in Underwriting Back Above 6%

Figure 7 shows the recent increases in the interest rates and cap rates used to size conduit loans. This is a major factor behind the reduced gap between Moody's and underwritten levels.

Cap rates were at or below 6% for the first three quarters of 2007 but reached 6.3% in the fourth quarter. Loan coupons rose to 6.1%, the highest level since 1Q 2003.

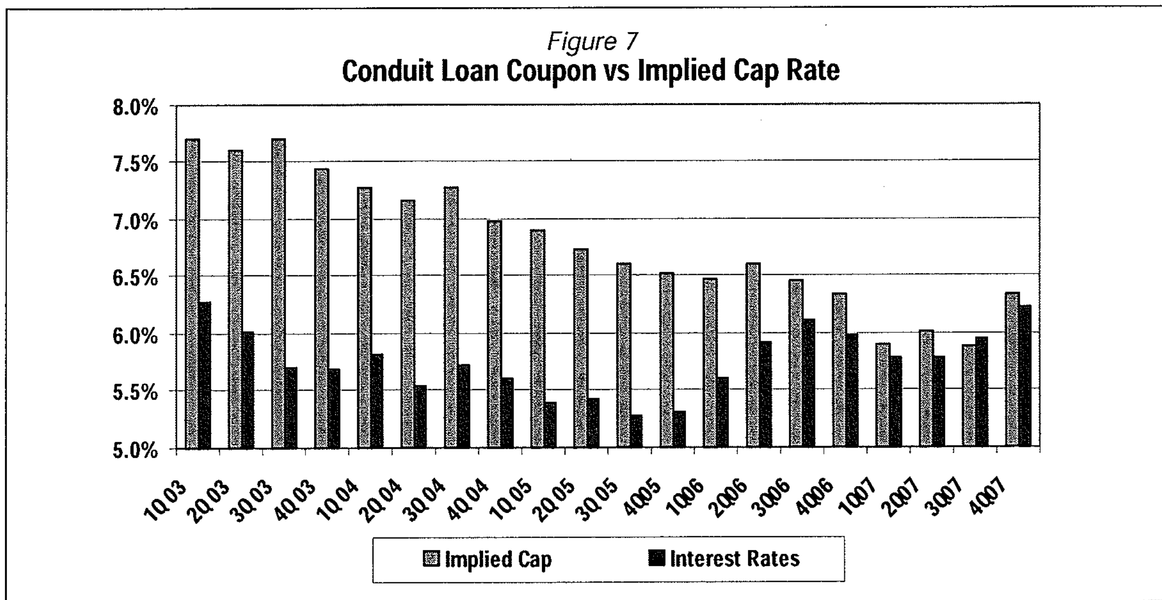


Figure 7
Conduit Loan Coupon vs Implied Cap Rate

Share of Interest-Only Loans Declines for First Time in 12 Quarters

The share of loans with an interest-only period fell during 4Q07 to 79.2%. This is the first reversal after 12 consecutive increases in share of IO loans and the first time the share is below 80% since 3Q 2006.

Further improving credit is that, of those loans that do have interest only periods, far fewer were full term interest only (33.1% for 4Q 2008 vs 60.7% for 3Q 2008).

Amortization is very helpful to credit as it simultaneously builds up subordination at the deal level and reduces balloon risk at the loan level.

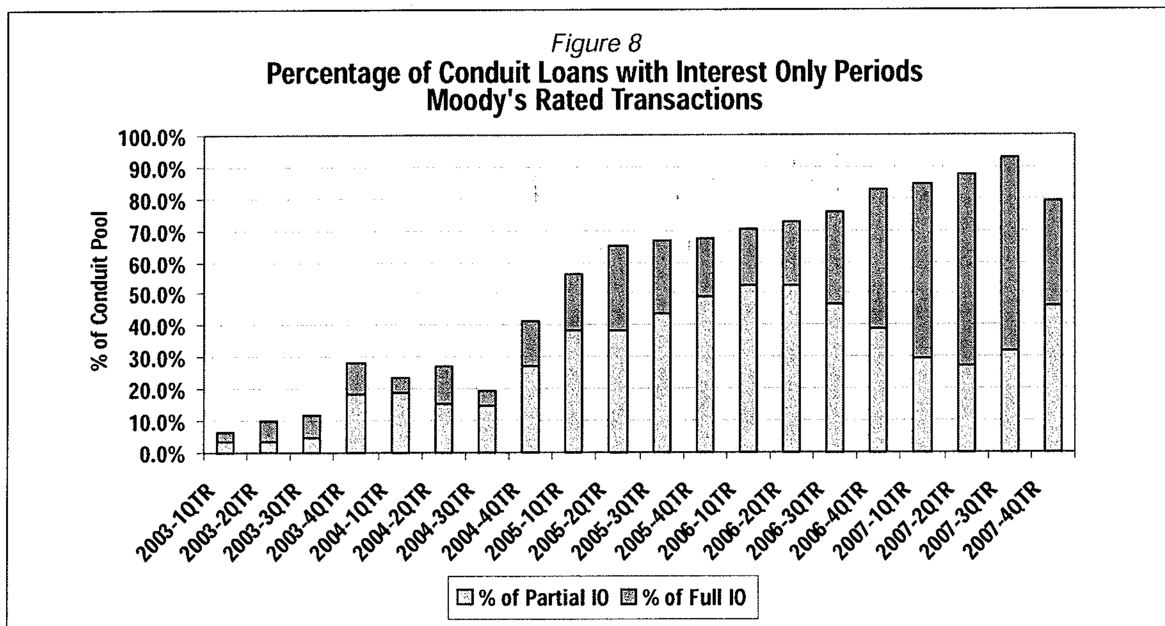


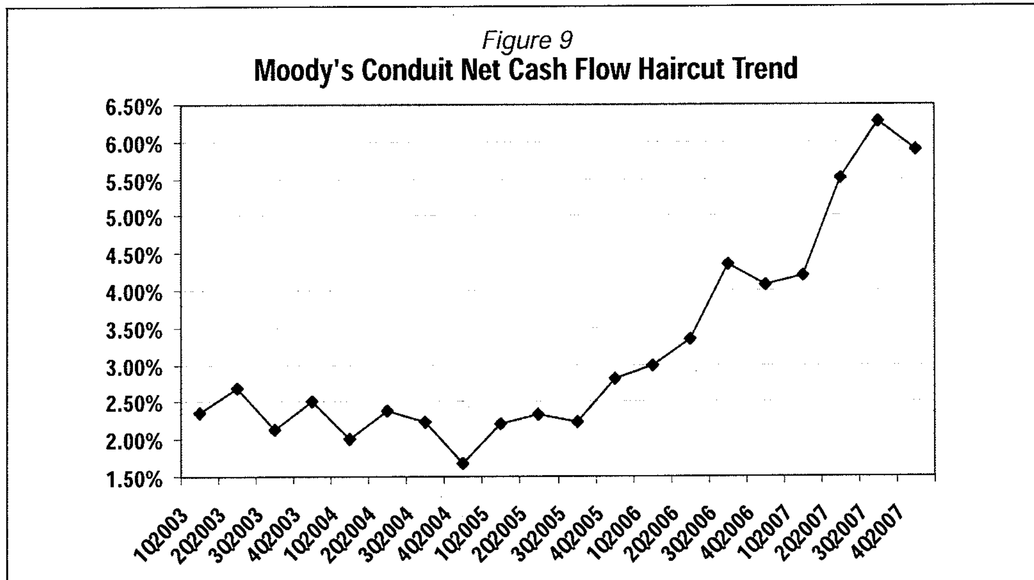
Figure 8
Percentage of Conduit Loans with Interest Only Periods
Moody's Rated Transactions

Cash Flow Haircut Trends Down

As *Figure 9* shows, Moody's cash flow haircuts had been inching upwards in recent quarters but reversed in 4Q 07 to 5.9%. While an improvement, this is still the second highest level that Moody's has recorded.

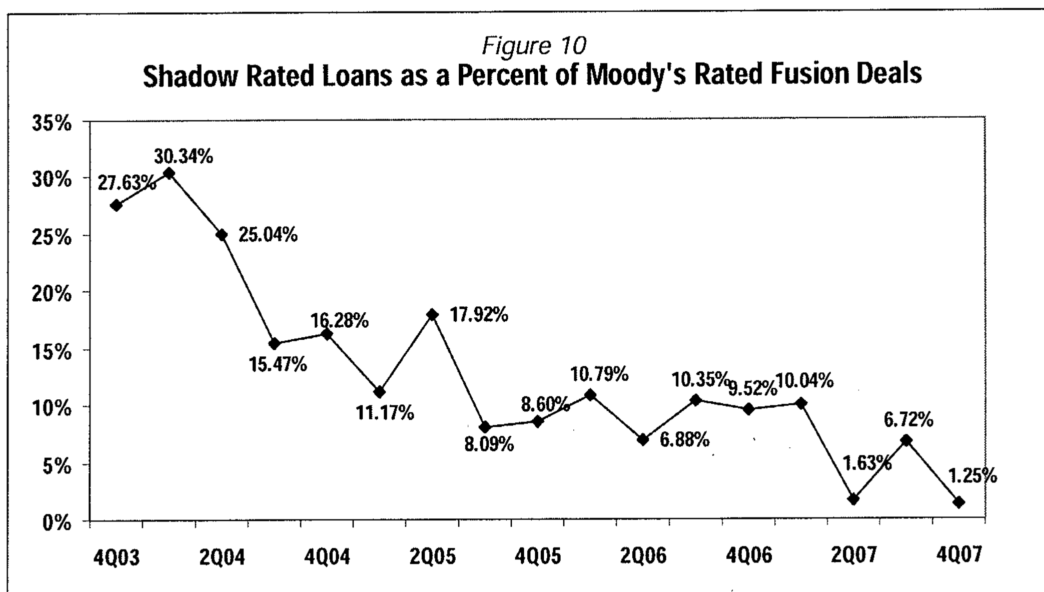
The cash flow haircut increases prior to 4Q 2007 reflected the growing use by underwriters of property income beyond levels Moody's deems "sustainable." In earlier years, cash flow haircuts had settled into a low range as

issuers' and Moody's approaches converged except for routine adjustments to line items such as management fees, baseline vacancy or reserves.



Share of "Shadow Rated" Loans Declines

The sole negative credit trend in the 4th quarter was the continued reduction of the share of shadow rated loans in CMBS deals. They reached a recent low of just above 1% while having comprised more than a quarter of CMBS deals three years ago. Shadow rated loans tend to require little credit support and thus help boost a deal's overall credit profile. In recent quarters there has been little practical distinction between conduit and fusion deals given the diminished inclusion of shadow rated loans.



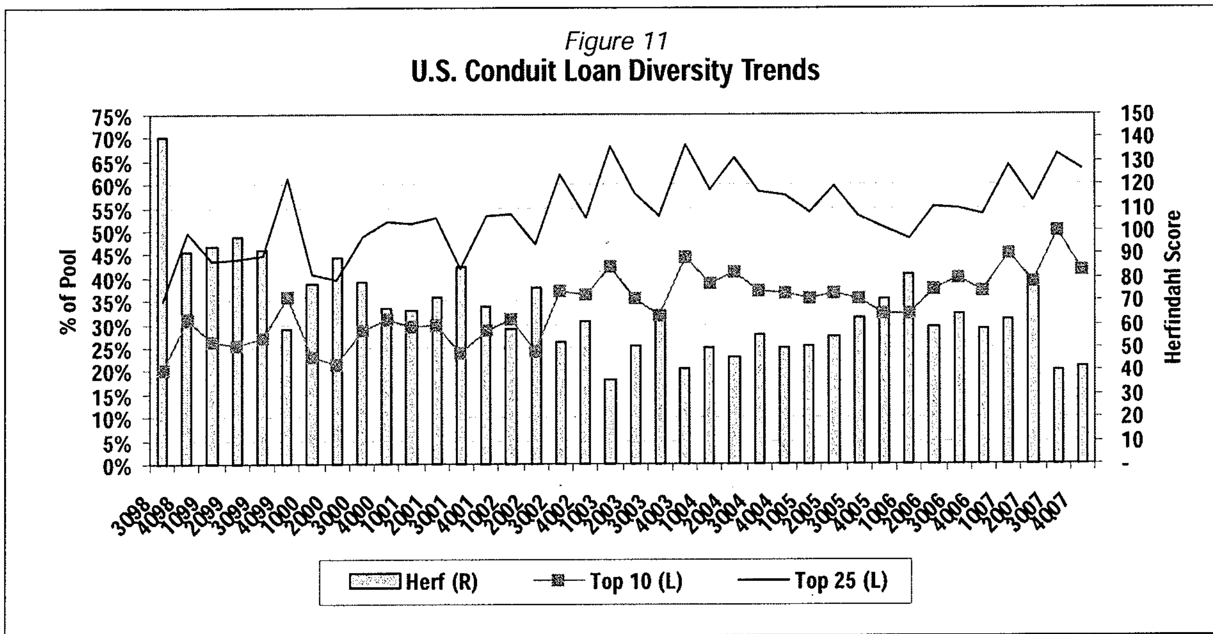
Conduit Diversity Remains At Historically Low Levels

Conduit diversity as measured by the Herfindahl index was 42 in 4Q 2007, relatively unchanged from the prior quarter and among the lowest levels on record. Reduced lending activity will likely mean both fewer deals and smaller deals during 2008.

Moody's routinely includes additional enhancement to offset the potential volatility of low diversity pools. Without such additional enhancement, under adverse circumstances there would be increased risk of multi-notch downgrades and of individual deals meaningfully departing from industry average statistics. Moody's looks for additional subordination as deals become more concentrated, especially when the Herf gets below 50. We understand that some other market participants are indifferent to diversity if no loan exceeds 5% of a pool, which can be accomplished with a Herf as low as 20.

Notable during 4Q 07 is that Moody's was kicked off a deal in the middle of the rating process for seeking additional subordination when enough loans dropped out to meaningfully alter its diversity profile. While mindful of issuers' concerns about certainty of execution, we don't accept significant deal changes that would increase volatility for investors without an offsetting increase in subordination.

Figure 11
U.S. Conduit Loan Diversity Trends



APPENDIX 1

Fourth Quarter 2007 New Ratings - CMBS Transactions

Deal Name	Country
UBS Commercial Mortgage Trust 2007-FL1	United States
J.P. Morgan Chase Commercial Mortgage Securities Trust 2007-C1	United States
Banc of America Large Loan Trust 2007-BMB1	United States
CVS Caremark Lease-Backed Pass-Through Certificates, Series 2007	United States
Countrywide Commercial Mortgage Trust 2007-MF1	United States
Merrill Lynch Floating Trust Commercial Mortgage Pass-Through Certificates, Series 2007-LAQ	United States
Protective Finance Corporation REMIC, Commercial Mortgage Pass-Through Certificates, Series 2007-PL	United States
CD 2007-CD5 Mortgage Trust	United States
Wachovia Bank Commercial Mortgage Trust Series 2007-C34	United States
Windermere XIV CMBS Limited	European Union
Business Mortgage Finance 7 PLC	United Kingdom

APPENDIX 2

Fourth Quarter 2007 New Ratings - CRE Derivative Transactions

Deal Name	Country
Aphex Capital NSCR 2007-7SR, Ltd.	United States
CWCAPITAL COBALT Vr LTD.	United States
COMM 2007-RS2	United States
MAX CMBS I Ltd.	United States
Sonoma Valley 2007-4 Series 115	United States
ABACUS 2007-18, LTD.	United States

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