

April 21, 2008

Apocalypse CLO

In our February 26th *CDO Insight*, we showed that AAA to BB tranches of a 2007 CLO survive high levels of collateral losses.¹ In this *CDO Insight*, we stress test 91 CLOs issued in 2007.² We find that almost all Aaa and Aa tranches survive apocalyptically high collateral loss assumptions, as do many A tranches. But within each rating category, from Aaa to Ba, individual CLOs show surprising variability in their resistance to collateral losses. Only some of this variability can be attributed to the two variables we test: CLO coupon spread and collateral WARF trigger.

2X Recession Scenario

Our February 26th article showed that broadly syndicated U.S. leverage loans issued in 2000 experienced the highest default rate of any vintage on record. Loan underwriting standards lapsed in the boom years of the late 1990s, and the weakened structures were battered by the 2000-1 U.S. recession. The cumulative default rate for loans made in 2000 hit 21% after 4.5 years, compared to an average cumulative loan default rate of 8.2%. We show the timeline of 2000-vintage cumulative defaults in Exhibit 1 (next page).

To test 2007 CLOs, we asked Moody's Wall Street Analytics to stress CLO collateral portfolios with *two times* the 2000 recession default scenario, or 42% over 4.5 years. This default rate is greater than that of speculative-grade bonds in the Great Depression, where Moody's finds a four-year default rate of 33.9%.³ We also had MWSA apply these other modeling assumptions:

- 50% loan recovery, 20% bond recovery when testing Aaa tranches;
- 70% loan recovery, 25% bond recovery when testing tranches rated Aa and below;
- 15% loan prepayment, 5% bond prepayment;

1. "How Bad Can CLO Performance Get?" February 26, 2008, *CDO Insight*.

2. Actually, we didn't do the stress testing. Rather, we convinced Moody's Wall Street Analytics to model to our specifications and report their results. *Thanks!*

3. Lea V. Carty and Dana Lieberman, *Historical Default Rates of Corporate Bond Issuers*, 1920-1996, Moody's Investors Service, January 1997, page 9 for the worst four-year period 1932-1935. W. Braddock Hickman, the grandfather of default study research, found a rate of 48.9% over the same time period in *Corporate Bond Quality and Investor Experience*, NBER, 1958. The considerable difference could be because Moody's focused on Moody's-rated bonds.

Also in this Issue:

A Look at Relative Value... Page 11

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- reinvestment at current portfolio averages;
- default reinvestment at two-times recession scenario;
- present value cash flows at LIBOR.

Because we knew that Aaa tranches could survive high default rates, we asked to have them tested at lower collateral recoveries, to stress them further to see if we could break any of the tranches. We use 15% loan prepayment (instead of a higher level of prepays) to subject more collateral to default and we also default reinvestment from recoveries. Because negative IRRs are hard to interpret¹, we present-valued CDO cash flows to get a clear picture of the performance of deeply stressed tranches. We show PVs as percent of par, thus creating a price. And because we are assuming the certainty of a particular stress scenario, we discount cash flows at LIBOR. This also allows comparison across tranches of different ratings.

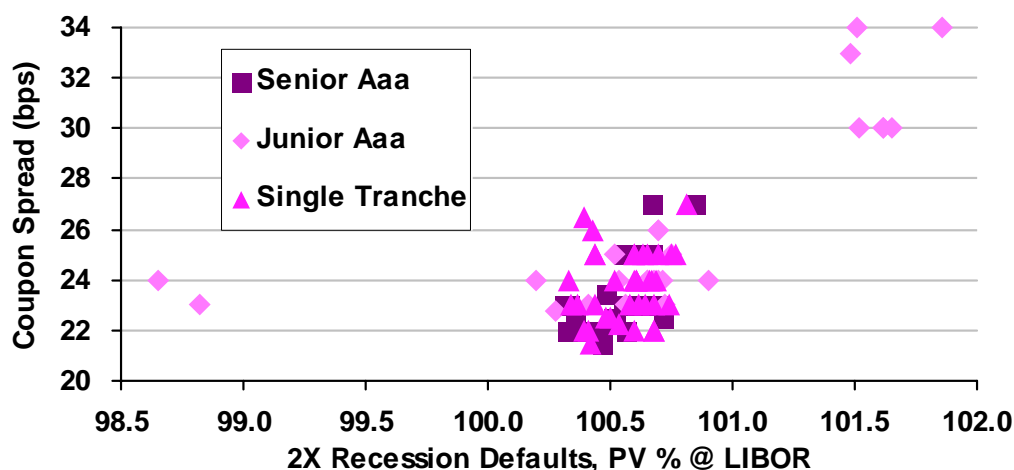
Exhibit 2 (below) shows the results. The X-axis of the exhibit is the present value of tranche cash flow under our two-times recession default scenario; the Y-axis shows the coupon spread of the tranche in basis points above LIBOR. The exhibit also codes the Aaa CLOs as being 1st priority or senior Aaa (in squares), 2nd priority or junior Aaa (in diamonds), or undivided single-tranche Aaa (in triangles). Most of the Aaa CLO's present values fall between 100 and 101. These CLOs don't break in our stress scenario. Their above-LIBOR coupons, when discounted at LIBOR, produce an above-par price. In the top right of Exhibit 2, a few junior Aaa CLOs with coupon spreads of 30-34 basis points also do not break, and thus have a higher present value. Literally off the chart, some late 2007 CLOs with extremely high coupon spreads do not break in the two-times recession scenario, and produce even higher present values.

Exhibit 1: 2000 Vintage Loan Defaults

Years	Cumulative Default Rate
0.5	0.0%
1.0	4.0%
1.5	8.0%
2.0	13.4%
2.5	18.8%
3.0	19.6%
3.5	20.3%
4.0	20.7%
4.5	21.0%

Source: S&P LCD, UBS CDO Research Calculations

Exhibit 2: 2X Recession Stress Test of 2007 Aaa CLOs



¹ Which is worse, a -10% IRR over one year or a -5% IRR over two years? We aren't sure, either.

Source: Moody's Wall Street Analytics

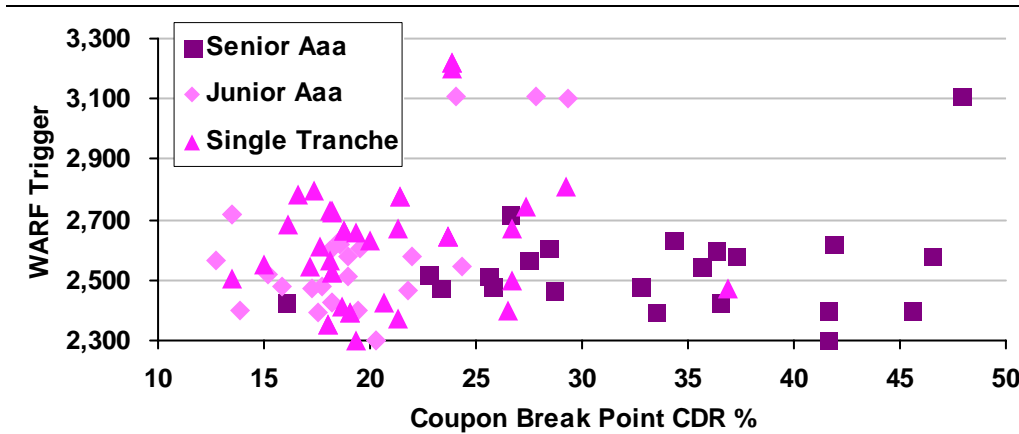
In the lower left of Exhibit 2 are two junior Aaa CLOs that suffer enough loss of coupon to push their present value into the 98.5-99.0 range. Again, literally off the chart, are four more junior Aaa CLOs which break more severely and whose present values are in the range of 78-93. It makes sense that if any Aaa CLOs fail our two-times recession default scenario, it would be junior Aaa CLOs.

Coupon Break Point CDRs

MWSA also tested Aaa CLOs to see how high a constant default rate (CDR) they can withstand before failing to pay all their coupon interest. Exhibit 3 (below) shows the credit advantage of senior Aaa tranches over junior and single-tranche Aaa CLOs. Most of the senior Aaa CLOs (squares) have coupon break points over 25% CDR. Most of the junior and single tranche Aaa CLOs (diamonds and triangles) have break points under 30% CDR.



Exhibit 3: Coupon Break Points of 2007 Aaa CLOs



Source: Moody's Wall Street Analytics

WARF Trigger, depicted on the Y-axis of Exhibit 2, has an effect on break point CDRs. “Weighted average rating factor” is a numerical measure of the collateral’s average rating where 2,220 indicates an average B1 rating; 2,720, B2; and 3,490, B3. Sometimes, the higher the CLO’s WARF trigger, the greater the tranche’s CDR. This is because CLOs with higher WARF triggers (lower collateral ratings) must have extra credit support to protect their tranches from collateral losses. This effect is perhaps more apparent for the three outliers not pictured in Exhibit 2, which are all above and to the right of the exhibit’s boundaries.

However, WARF differences do not fully explain differences in break point CDRs. A number of junior Aaa CLOs, depicted by diamonds in Exhibit 3, have WARFs around 2,500 and CDR breakpoints ranging 13-24. A number of senior Aaa CLOs also have WARFs around 2,500 and CDR breakpoints ranging from 16-46. When we look at the CLOs producing the greatest anomalies, we find rationale explanations. For example, one was intended to have a larger bond

bucket than it actually has. It thus has higher credit support than many other CLOs. Other anomalous CLOs have odd amortization waterfalls which “over-protect” some tranches.

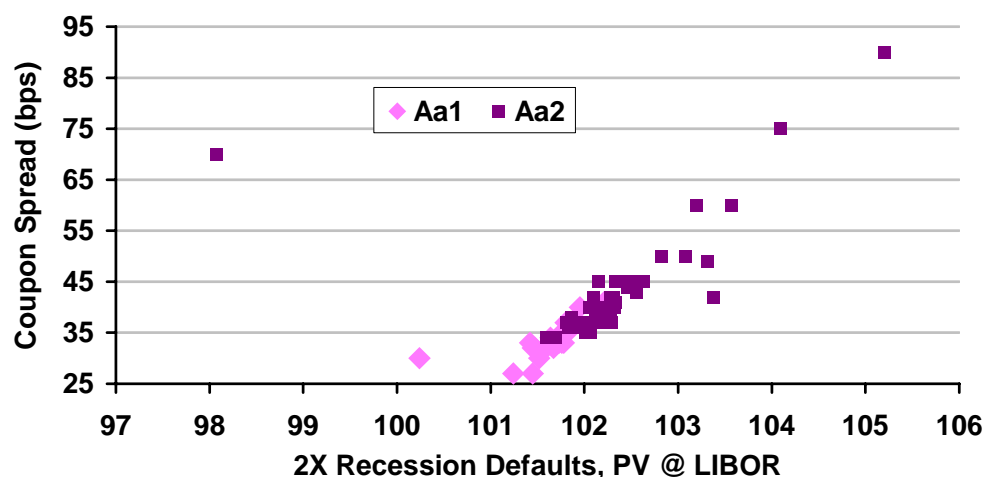
In other testing, we have found that CDR break points to the first loss of *principal* are generally more homogeneous across CLOs of any given rating. CDR break point to loss of *coupon* is a more sensitive test with more variable results. Another reason for the variability of stress results among CLOs is that tranche subordination and credit protection are sized according to rating agency modeling assumptions and specifications. Tranche credit strength varies when it is measured by different tests, in this case by finding the highest CDR that does not break coupon interest payments.

Aa2 and Aa3 CLOs

MWSA did the same analysis for the lower-rated tranches of the 2007 CLOs. The only difference in the stress testing is to increase recovery to 70% for loans and 25% for bonds. Results for Aa CLOs in Exhibit 4 (below) show almost all tranches not breaking in the two-times recession scenario and having PVs greater than par. Higher coupon Aa2 tranches (squares) have higher present values compared to Aa1 tranches (diamonds).

Only two Aa CLOs have PVs less than par, one shown at 98% PV and another not shown at 86% PV. Predictably, both CLOs are weaker-credit Aa2 CLOs. Recall that when we tested Aaa CLOs in two-times recession defaults, six tranches had a present value less than par (two shown in Exhibit 2, four more “off the chart” to the left.) So the effect of testing lower-rated CLOs was more than offset by increasing our loan recovery assumption from 50% to 70% and our bond recovery assumption from 20% to 25%.

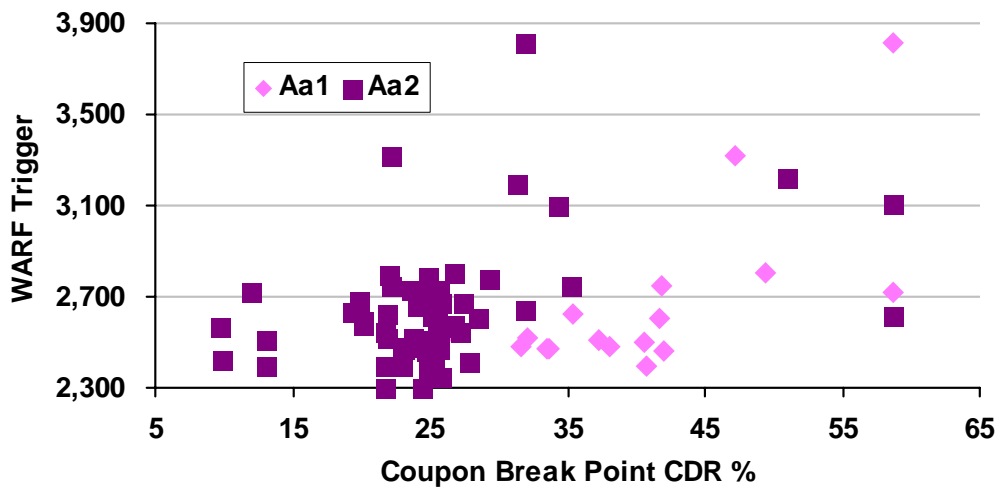
Exhibit 4: 2X Recession Stress Test of 2007 Aa CLOs



Source: Moody's Wall Street Analytics

Exhibit 5 (below) shows how high a CDR Aa CLOs can withstand before failing to pay all their coupon interest. Two effects are clear. Higher rated Aa1 tranches (diamonds) break at higher CDRs than Aa2 tranches (squares), and tranches from CLOs with higher WARF triggers survive higher CDRs than CLOs with lower WARF triggers.

Exhibit 5: Coupon Break Points of 2007 Aa CLOs



Source: Moody's Wall Street Analytics

A2, Baa2, and Ba2 CLOs in a 2X Recession Scenario

Exhibits 6-8 (page 6 and 7) show two-times recession scenario PVs for A2, Baa2, and Ba2 CLOs. Note that at the right of the exhibits, the PV scale increases from 110 for A2 in Exhibit 8, to 115 for Baa2 in Exhibit 7, and 120 for Ba2 in Exhibit 8. CLOs at the right of the three exhibits pay all principal and interest in the two-times recession default scenario. For these CLOs, the lower the rating the higher their coupon and the higher their PV when discounted at LIBOR.

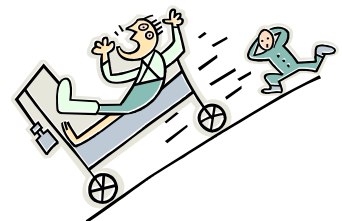
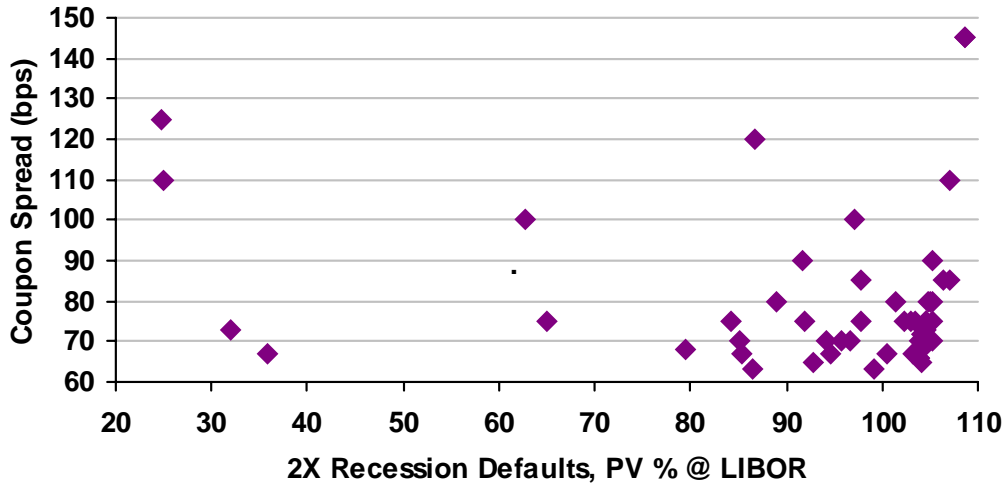
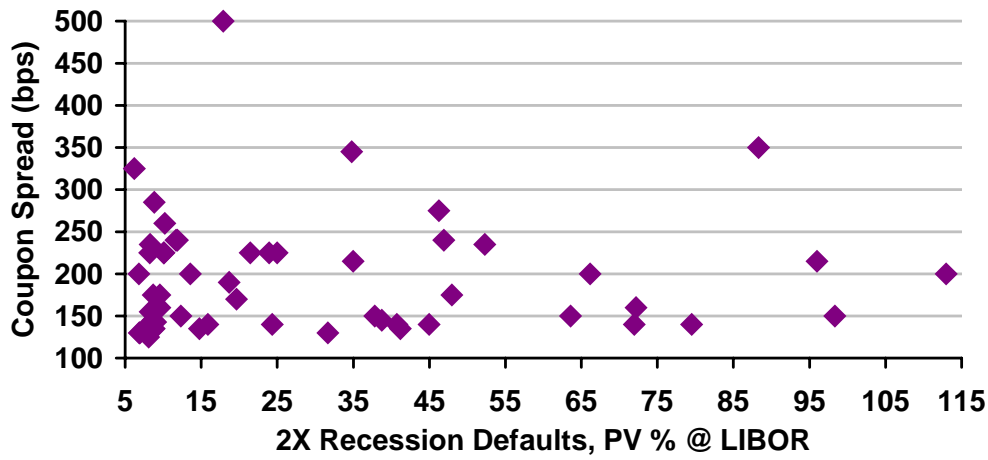


Exhibit 6: 2X Recession Stress Test of 2007 A2 CLOs



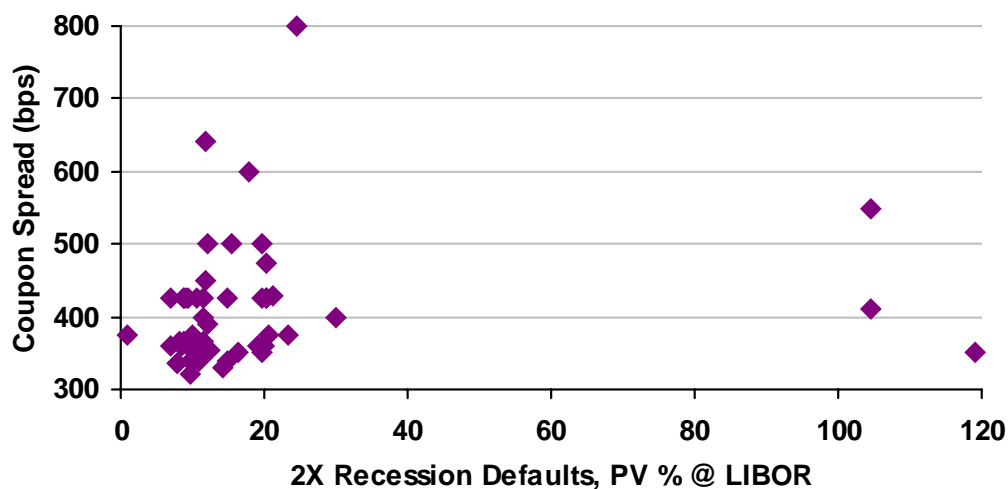
Source: Moody's Wall Street Analytics

Exhibit 7: 2X Recession Stress Test of 2007 Baa2 CLOs



Source: Moody's Wall Street Analytics

Exhibit 8: 2X Recession Stress Test of 2007 Ba2 CLOs



Source: Moody's Wall Street Analytics

Unfortunately, the scale increases at the left of Exhibits 6-8, where CLOs do *not* return all principal and interest. The shift in results is dramatic from rating to rating. In Exhibit 6, A2 CLOs are mostly between 80 and 110, as these CLO either don't break or don't break severely. In Exhibit 7, Baa2 CLOs are mostly 5-25, but there is a steady stream of CLOs to the right. In Exhibit 8, Ba CLOs are mostly between zero and 20, and there is a large gap between those and the three CLOs with PVs above par.

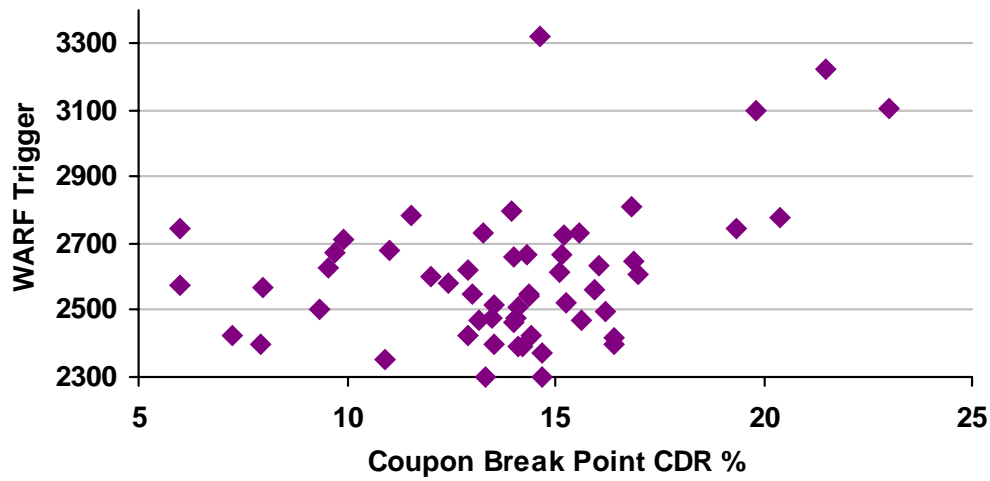
It is quite expected that most A2 and lower CLOs do not survive our two-times recession 42% cumulative default rate. We are surprised that any of them survive! But frankly, we were also surprised that most Aa CLOs passed this scenario. Rating agency requirements seem more than adequate to contend with historic, and worse, default rates.

A2, Baa2, and Ba2 CLOs & Coupon Break Point CDRs

Exhibits 9-11 (pages 8 and 9) show the highest CDR which our sample of 2007 A2, Baa2, and Ba2 CLOs can sustain and still pay full principal and interest. Note that the scales of the exhibits change with the ratings of the CLOs. The coupon break point ranges decline from 5-25 for A2 CLOs in Exhibit 9, to 2-14 for Baa2 CLOs in Exhibit 10, to 0-10 for Ba2 CLOs in Exhibit 11. There's a weak effect of CLOs with higher WARF triggers having higher break point CDRs. That effect would be more pronounced if we included a 3,900 WARF CLO that survives very high CDRs.

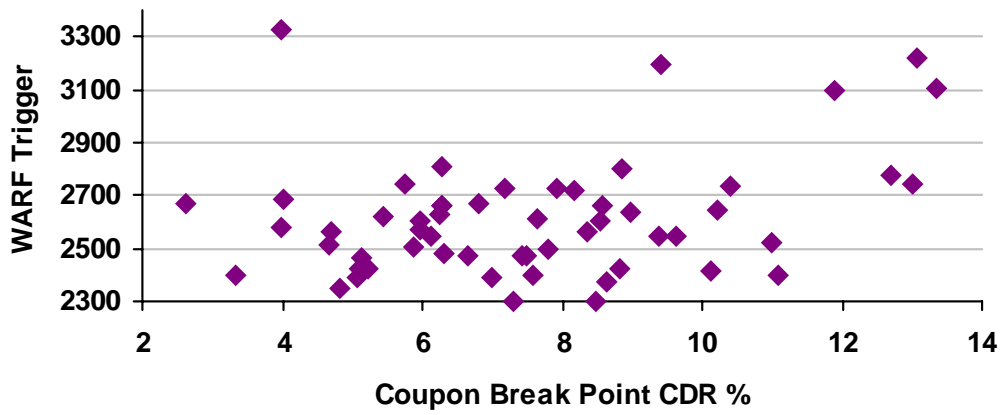


Exhibit 9: Coupon Break Points of 2007 A2 CLOs



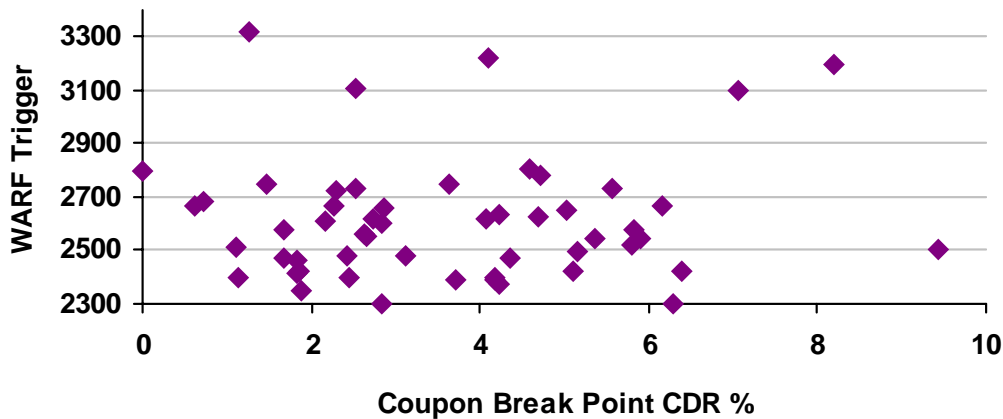
Source: Moody's Wall Street Analytics

Exhibit 10: Coupon Break Points of 2007 Baa2 CLOs



Source: Moody's Wall Street Analytics

Exhibit 11: Coupon Break Points of 2007 Ba2 CLOs



Source: Moody's Wall Street Analytics

Relative Value Considerations

If an investor views the two-times recession scenario as a certainty, buying tranches priced to provide the highest NPV maximizes investment return. Note that one can fairly discriminate among tranches only by present valuing them at the *same discount rate*, even if the tranches have different ratings. The rationale is that given the assumption of the two-times recession scenario, cash flows are a certainty; cash flows don't have to be discounted at different rates to take into account relative uncertainty.

Of course, the two-times recession scenario is *not* certain. And as we showed in the exhibits on page 12 of the February 26th *CDO Insight*, senior CLO tranches have longer weighted average lives in low-default scenarios when collateral cash flow is not diverted to pay down their principal. If the CLO is purchased at a discount, earning that discount more slowly significantly reduces CLO PV. So, if the two-times recession scenario is a *worse* case and not a *certain* case, buying the CLO with the highest PV tranche in the two-times recession scenario might lead to sub-optimal results in lower default scenarios.

Another investment consideration is that lower-rated tranches are more apt to be downgraded further than higher-rated tranches. So, if CLO ratings affect required capital, margining, or forced selling, those costs may be higher for lower-rated tranches.

Conclusion

Incredibly poor mortgage loan underwriting, fraud, and home price depreciation have boosted mortgage loan losses. For example, subprime mortgage loan losses have shot up from 3-5% for pre 2006 vintages to 15-40% for 2006-7 vintages. As a result, 2006-7 ABS CDOs are suffering extensive losses, all the way up to

their senior AAA tranches. Investors naturally wonder if leverage loan losses can increase as dramatically and cause similar losses in CLOs. Some investors express an anti-historical skepticism to placing reliance on past levels of loan losses to predict the future.

We began this article by finding the highest leverage loan default rate since the market developed in 1995: 21% over 4.5 years. This 2000 vintage of U.S. leverage loans was underwritten about as poorly as any, and then it suffered through the 2000-1 recession. We then doubled that default rate, producing a default rate of 42%; a rate in excess of the 34% Moody's finds in the worst years of the Great Depression for speculative-grade bonds. Yet, most Aaa CLOs issued in 2007 pass this test, even assuming only 50% recovery.

We have no suggestions for the "anti-historians" who think this stress insufficient. Shorting leverage loans would be useless because in a worse economic and financial environment one's counterparties will have defaulted long before you are able to collect! The state of the world in such a scenario is truly scary. Perhaps a better way to express such an apocalyptic view of leverage loans is by going long certain commodities: water filters, small arms, and gold coins.

A Look at Relative Value

The Bear Stearns deal has been described as many things — a bailout, an example of an entity being too big to fail, the extent to which the Fed will work to mitigate counterparty risk, etc.²

From our perspective, though, the Bear deal was important for a very different reason. *It was the catalyst for a shift in market mentality.* Now, unlike a month ago, market participants are very, very careful when establishing or holding short positions. This is not to say that investors are bullish, but rather that bearish positions now are carefully considered in the context of reward *and* risk prospects.

Key point: The “buy protection on anything” trade is over, and we expect to see more normal price action in the loan and bond markets, driven by traditional factors such as economic growth prospects, defaults, supply, etc.

Once the underlying markets stabilize, we expect that the structured credit space can firm as well. It is still a bit too early, but we are beginning to see light at the end of the tunnel.



What to do?

Again, it is still a bit too early for a significant spread tightening in the CLO market. That said, we believe that select CLO tranches may be well-positioned to benefit from more normalized price action in the underlying markets in the period ahead.

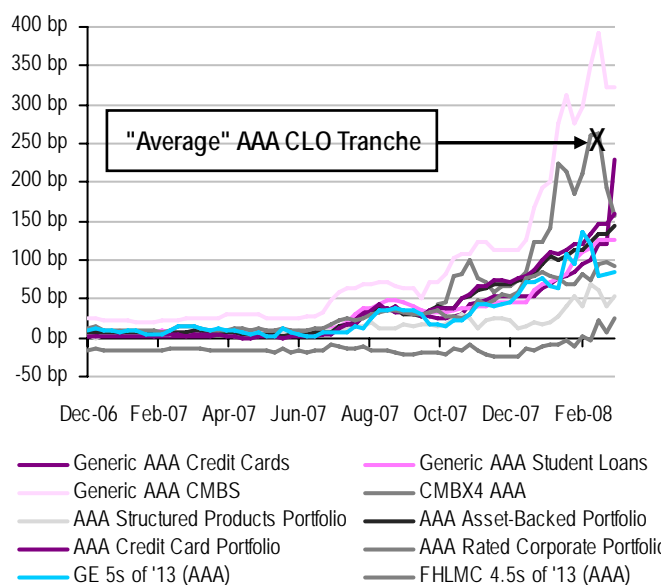
For example, in Exhibit 1 (next page, left) we present the spread history of an average AAA CLO relative to other “money good” AAA assets. In Exhibit 2 (next page, right), we show their recent spread levels. Two key points:

- 1) **CLO underperformance:** AAA CLOs have underperformed virtually all other “money good” assets, including credit cards, student loans, and AAA corporate bonds. The pull to par should be quite dramatic for AAA CLOs as technical pressure abates, particularly if economic weakness is more severe than consensus expectations and CLO structures divert cash flow to amortize their AAA debt faster than expected.
- 2) **Wide dispersion across asset classes:** At the beginning of 2007, AAA “money good” assets all paid about the same spread (ranged -16 to +24

² We thank fellow UBS analyst Steve Antczak for permission to reprint his research, which is published in *Leveraged Finance Insight*.

bp). That range has ballooned to almost 300 bp (25 to 322 bp). In our view, this creates a number of relative value opportunities.

Exhibit 1: Spread performance of “money good” assets



Source: UBS, UBSDelta, UBS Mortgage Strategy, Yield Book

We next highlight two non-traditional package trades that take advantage of this backdrop.

Trade #1: Long AAA Tranche, Short Cyclicals

Our economists expect the economic backdrop to remain challenging: GDP growth is forecast at -1.0% in Q1, -1.5% in Q2, corporate profit growth is likely to be weak in coming quarters, and defaults are likely to keep edging higher. We believe that a non-traditional basis package may be well-positioned to take advantage.

In particular, we favor buying protection on select cyclical names that may have rallied too far, too fast in recent trading. For example, a short basket comprised of five of the names listed in Appendix 1 on page 17 (New York Times, Southwest Air, Masco, RR Donnelley, and Weyerhaeuser) have tightened 70 bp over the past month, despite the soft economic backdrop.

Protection purchases can be funded with a AAA CLO tranche, which is likely to be “money good” even if defaults rise, but still has significant room to benefit from improved market sentiment, in our view. In Exhibit 3 (next page) we outline the payoff profile in bullish, bearish, and unchanged scenarios:

- 1) **Status Quo:** This package is well-positioned to benefit from a “status quo” environment due to positive carry (46 bp per year) and a very large dollar takeout (\$12.50).

Exhibit 2: Valuations for “money good” assets

	3/27/08	12/29/06	Change	Pickup/(Giveup) vs. Avg AAA CLO Tranche
Generic AAA CMBS	322	24	+298 bp	-97 bp
Generic AAA Credit Cards	230	2	+228 bp	-5 bp
AAA Credit Card*	160	1	+158 bp	+65 bp
CMBX4 AAA	156	0	+156 bp	+69 bp
AAA Asset-Backed*	145	8	+137 bp	+80 bp
Generic AAA Stu Loans*	126	9	+117 bp	+99 bp
AAA Rated Corporate*	93	12	+81 bp	+132 bp
GE 5s of '13 (AAA)	84	10	+74 bp	+141 bp
AAA Structured Prod*	53	4	+50 bp	+172 bp
FHLMC 4.5s of '13 (AAA)	25	-15	+40 bp	+200 bp
"Avg" AAA CLO Tranche	250	25	+225 bp	

Note: As of March 31, 2008

* - Single portfolio

Exhibit 3: Long AAA CLO tranches and short a basket of cyclical CDS

POSITION: Buy portfolio of AAA CLO tranches, buy basket of cyclical CDS

Position	Issue	Price	Spread	Hedge Ratio	Spread / \$s at Risk
Long	AAA CLO Tranches	\$87.50	250 bp		250 bp / \$87.50
Short	Basket of Cyclical CDS	\$100.00	204 bp	1x	204 bp / \$100.00
Difference					46 bp / -\$12.50

STRESS TEST: Rally (to June 2007 levels)

Position	Issue	Current Price	Assumed Tightening	Post-Rally Price	Gain / Loss
Long	AAA CLO Tranches	\$87.50	\$12.50	\$100.00	+\$12.50
Short	Basket of Cyclical CDS	\$100.00	150 bp	\$106.67	-\$6.67
Net					+\$5.83

STRESS TEST: Extreme bearish scenario

Position	Issue	Current Price	Assumed Widening	Post-Widening Price	Money Good?	Short-Term / Long-Term
Long	AAA CLO Tranches	\$87.50	50 bp	\$84.47	YES*	-\$3.03 / +\$12.50
Short	Basket of Cyclical CDS	\$100.00	125 bp	\$94.44	??*	+\$5.56 / ???
Net						+\$2.53 / ???

*Comment: Structural features of the AAA tranches would allow, in typical recovery scenarios, a full recovery of principal and interest, although there would be some weakness in secondary trading in the short-term. The banking system is likely to be susceptible to more fundamental challenges and exhibit a higher beta if fundamental risk rises. Downgrades and a default are possible.

Source: UBS, Markit

Note: As of April 9, 2008 CDS basket includes New York Times, Southwest Air, Masco, RR Donnelley and Weyerhaeuser

- Bullish scenario:** If sentiment improves more than we expect and spreads rebound to year-ago levels, the short leg of our package would rally 150 bp (to 54 bp!) for a dollar price gain of \$6.67. That said, the AAA tranche has even more room to run — a year ago, AAAs were trading at par, or 12.5 pts higher than current levels. In this scenario, this package would generate a \$5.83 gain.
- Bearish scenario:** We also believe the package is well-positioned to generate favorable results in a scenario of deteriorating fundamentals.

First, consider the resiliency of AAA CLOs. In Exhibit 4 (right) we summarize our findings from the February 26th *CDO Insight*. Given various loan recovery assumptions, the table shows the point at which the AAA tranche “breaks,” or is unable to pay principal and interest. For example, with 75% recoveries, the AAA tranche could withstand 90% defaults of initial collateral before it is unable to pay all its principal and interest.

Key point: Even with very aggressive default and recovery expectations, the “pull to par” will be significant as time passes.

Exhibit 4: When do '07 AAA CLO tranches not pay interest & principal?

Breakpoints given recovery and default rate assumptions...

Recovery Rate (%)	Default Rate (%)
75	90
70	84
65	74
60	66
55	60

Source: UBS CDO Research



How about the short side of the trade? The position is comprised of unsecured issues (higher betas, lower recoveries) in cyclical industries (higher potential to default or become a fallen angel). As such, as a base case we would expect modest outperformance in a bearish scenario, but with the potential for dramatic outperformance.

Trade #2: Long BBB CLO, short CDX.HY

Several market participants that had raised or were in the process of raising capital with fairly long lock-ups (3-4 years) recently asked if the high-yield market offers “good value” at this juncture. **We believe that it probably does...but this is not to say it offers the best value for this type of investor.** In fact, a package with a short position in high-yield may actually have a better payoff profile in many scenarios than a package with a long high-yield position.

Consider a hypothetical investor that raised capital with a 3-year lock-up, and believes that the high-yield market may be oversold both absolutely and relative to the fundamental backdrop. That said, he also expects the economy to remain weak for the foreseeable future and defaults to rise. In short, he is modestly bullish, but wary about being too early. He is also worried that he may be understating the potential for very severe economic problems.

Trade Idea: Long “average” BBB CLO tranche, short high-yield index

Rationale: Positive carry, dollar take-out, favorable performance in many bullish and bearish scenarios

Constraint: Most appropriate for investors without significant near-term liquidity risk

Given our investor’s market assumptions, consider the payoff profile for a package consisting of a long BBB CLO tranche and a short CDX.HY9 position with a 1:1 hedge ratio, as shown in Exhibit 5 (next page). The BBB CLO tranche is an “average” deal, trading at \$69.23 for a DM of 750 bp. The CDX.HY index trades at \$89.88 (665 bp spread). Consider performance in these various scenarios:

- 1) **Status Quo:** This package is obviously well-positioned to benefit from a “status quo” environment due to positive carry (85 bp per year) and a very large dollar takeout (\$20.65)

Exhibit 5: Long “average” BBB CLO tranche, short high-yield index

POSITION: Buy BBB CLO Tranche, buy CDX.HY 9

Position	Issue	Price	Spread	Hedge Ratio	Spread / \$s at Risk
Long	BBB CLO Tranche	\$69.23	750 bp		750 bp / \$69.23
Short	CDX.HY 9	\$89.88	665 bp	1.00x	665 bp / \$89.88
Difference					+85 bp / -\$20.65

TOTAL RETURN PERFORMANCE:

STRESS TEST: Cumulative defaults spread evenly over a 3-year period

Position	Issue	Assumptions for Total Return			Annualized Total Return
		Default	Recovery	Exit Spread	
Long	BBB CLO Tranche	28%	70%	750 bp	10.84%
Short	CDX.HY 9	28%	40%	665 bp	1.72%
Difference					+9.12%

STRESS TEST: No defaults over a 3-year period

Position	Issue	Assumptions for Total Return			Annualized Total Return
		Default	Recovery	Exit Spread	
Long	BBB CLO Tranche	0%	NA	600 bp	13.62%
Short	CDX.HY 9	0%	NA	532 bp	9.15%
Difference					+4.48%

Source: UBS

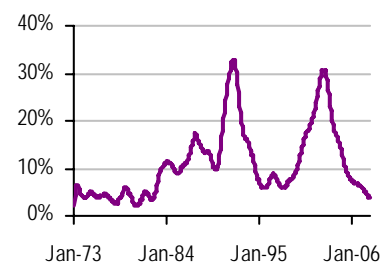
Note: As of March 27, 2008. Assumed 3-yr LIBOR of 2.854%

- 2) **Extreme bearish scenario:** The high-yield index currently has 28 names that are trading at “distressed” levels (i.e., 1,000+ bp). Assume that all 28 default over our investor’s 3-year investment horizon (i.e., a default rate of almost 10% per year or 30% over the three year holding period). Note that three-year cumulative defaults peaked around 30% during the past two recessions, as shown in Exhibit 6, at right).

Assuming that defaults are evenly spaced throughout the holding period and that spreads at the end of the holding period are unchanged (after 3 years of 10% defaults, the market will likely expect fundamentals to improve), the annual total return of the bond position is more or less “breakeven” (1.7%). **In our view, this shows that a lot of bad news is already priced into the market.**

But how does the BBB CLO perform? **First and foremost, suppose that the deal manager is...ineffective...and the CLO has as many defaults as the HY index.** Assuming that 28% of deal constituents default, our traders calculate that the total return for an “average” BBB tranche would be approximately 10.8%. **Structure can be very effective in protecting against fundamental risk.**

Exhibit 6: High-yield cumulative default rates over a 3-year period



Source: UBS, Moody's

- 3) **Extreme bullish scenario:** We assume that there are zero defaults, and spreads for both assets tighten 20% (from the initial spread). The HY index generates an annual return of 9.1%, relative to 13.6% for the BBB CLO (i.e., package +4.5%). The BBB CLO benefits from more duration and wider starting spreads.

Key point: Technical pressure in the structured credit market has been extreme, and at current levels this market can be an attractive source of value relative to other asset classes. There is no free lunch, though. Due to liquidity challenges in the current environment, investors with longer-term financing are best positioned to take advantage.



Appendix 1

Table 1: Look to set shorts among vulnerable cyclical names that may have benefited too much from recent market rally

Name/ Ticker	Rating	5-year CDS (mid)	Change since Mar 14 (bp)	Analyst Comment
<u>Retailers</u>				
Liz Claiborne (LIZ)	Baa3/BBB	401	-95	Retail sector view: We continue to be negative on the retail sector, especially in light of the JCP announcement this morning (that has pushed retail spreads wider). We are likely to see additional companies cutting 1Q guidance and think the back half of the year is unlikely to improve like some retailers are currently forecasting. Being through the holiday season, the sector is less prone to headline risk, but we continue to be underweight the sector and think its a good time to set additional shorts in LIZ and LTD.
Limited (LTD)	Baa3/BBB-	395	-21	
<u>Media / Telecom</u>				
R.R. Donnelley (RRD)	Baa2/BBB+/BBB	163	-147	Participates in mature, cyclical and intensely competitive printing space; viewed as consolidator in the printing space (potential for debt-financed acquisitions)
New York Times (NYT)	Baa1/BBB	279	-108	Deteriorating credit facing both secular and cyclical pressures within its core newspaper operations
CBS Corp (CBS)	Baa3/BBB/BBB	161	-93	Reasonably stable low-BBB credit with solid financial flexibility, but we expect CBS to continue using cash for shareholder distributions and M&A
Embarq (EQ)	Baa3/BBB-/BBB-	264	-144	Likely to face a more challenging operating environment than its RLEC peers; Event risk concerns due to mgmt desire to play a role in RLEC consolidation
<u>Other Cyclical</u>				
Weyerhaeuser (WY)	Baa2/BBB/BBB	153	-113	Direct exposure to housing likely to hurt earnings. Even with debt reduction, still 3x Debt / EBITDA. Management has stated interest in 'bolt on' acquisitions.
Masco (MAS)	Baa1/BBB+/BBB+	263	-80	Vulnerable to housing; earnings likely to be weak as pressure from lower demand contributing to margin squeeze from retailers. MAS added to IG10 index.
Southwest Air (LUV)	Baa1/A-/A-	163	-52	Airline fundamentals remain weak with \$100+ oil. LUV fuel hedges diminishing over time. Recent maintenance issues leading to government fine / probe.
Average		260	-88	

Source: UBS, Bloomberg
Note: As of April 9, 2008

2008 Institutional Investor Poll

This year's Institutional Investor U.S. Fixed Income Research poll will soon open! In today's challenging environment, the poll means even more than it usually does to street research analysts. We hope you will consider UBS' efforts over the past year when voting.

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Thomas Zimmerman	ABS/Real Estate Strategy ABS/Prepayments ABS/Other Strategy MBS/Non-Agency Structured Products
Dipa Sharif	ABS/Other Strategy
Rei Shinozuka	ABS/Real Estate Strategy
MaryBeth Fisher	MBS/Adjustable Rate Mortgages MBS/Agency Pass-Throughs
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* Europe - iBoxx NonSovereign € and NonGilt £ universe measured on a curve-adjusted, excess return basis

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