

## ABS/CDO UPDATE

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July 2007

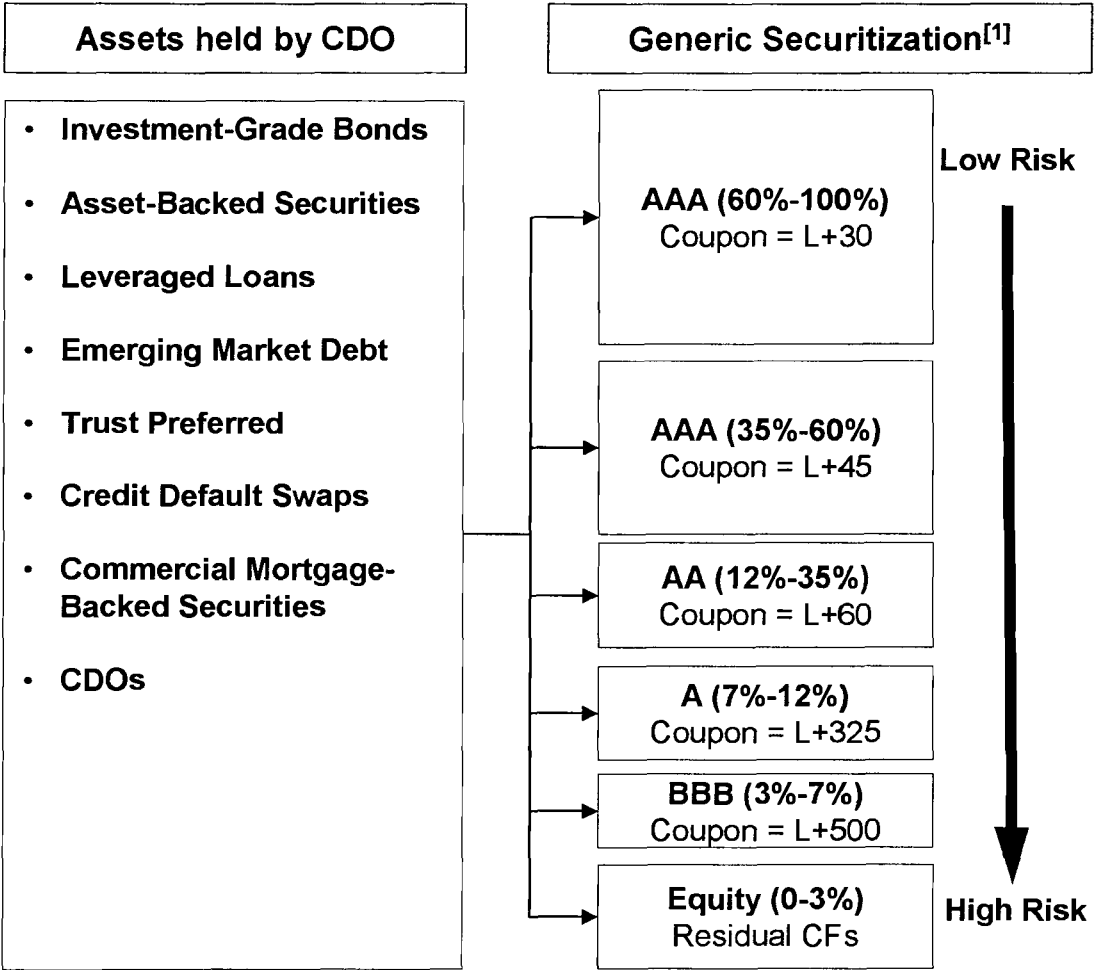


Global Markets & Investment Banking Group

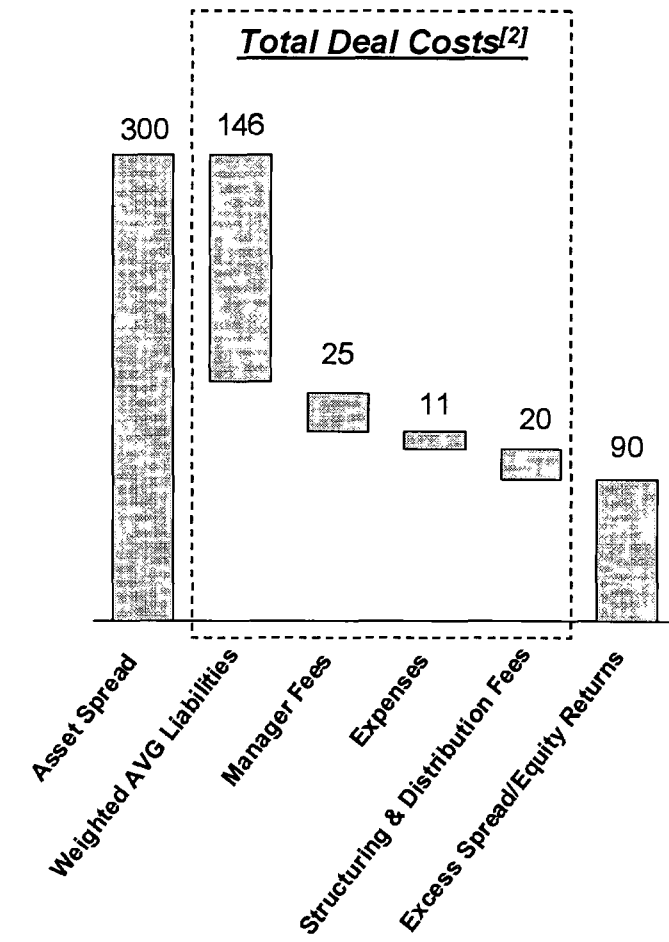


# CDO Structure & Economics

## What is a Collateralized Debt Obligation (CDO)?



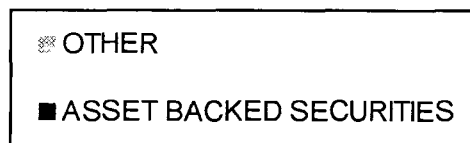
## Economics



(1) Reflects generic Mezzanine Collateralized Debt Obligation  
 (2) Expenses include: rating agencies, legal, trustee, printing, etc.

## ML Market Leadership in a High Growth Market

### US CDO Volumes (\$BN)<sup>[1]</sup>



### Global League Tables (First Half 2007)

RANK    BOOKRUNNER    VOL (\$BN)    MKT SHARE

1	Merrill Lynch	34.2	13.3
2	Citi	30.1	11.7
3	Barclays Capital	16.2	6.3
4	Wachovia Corp	14.7	5.7
5	Deutsche Bank	14.7	5.7
6	JP Morgan	14.6	5.7
7	BOFA	13.7	5.3
8	Morgan Stanley	12.1	4.7
9	UBS	11.8	4.6
10	Bear Stearns	10.6	4.1



(1) Excludes Investment Grade Synthetics

(2) 2007 YTD as of June 22

## US Mortgage Market Since 2003

### Market Developments

#### Macroeconomic environment

- Low interest rates
- Home price appreciation

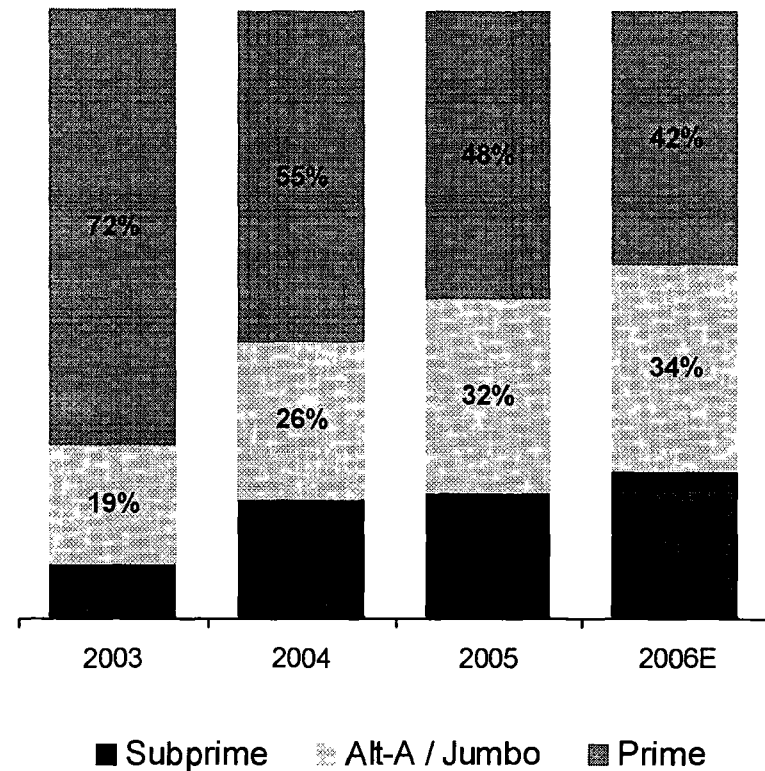
#### Product development

- Growth in non-conforming segments
  - Impaired credit histories
  - Low documentation requirements
  - High loan-to-value ratios
- Adjustable rate mortgages (ARMs)

#### Distribution

- Specialized sub-prime originators
  - Financing through investment banks
  - Liquidity available through capital markets

### Increasing Sub prime Origination



## What Happened in the Market

### Drivers of Current Situation

#### Aggressive offering of product

- Targeting of first time home buyers
- Limited verification of borrower information
- Loading of too much risk on exotic new loan products (ARMs)

#### Declining house prices

- Limited ability to refinance out of troubled situations
- Increased lender losses on foreclosure for high Loan to Value products

### Impact

Increased delinquencies and losses

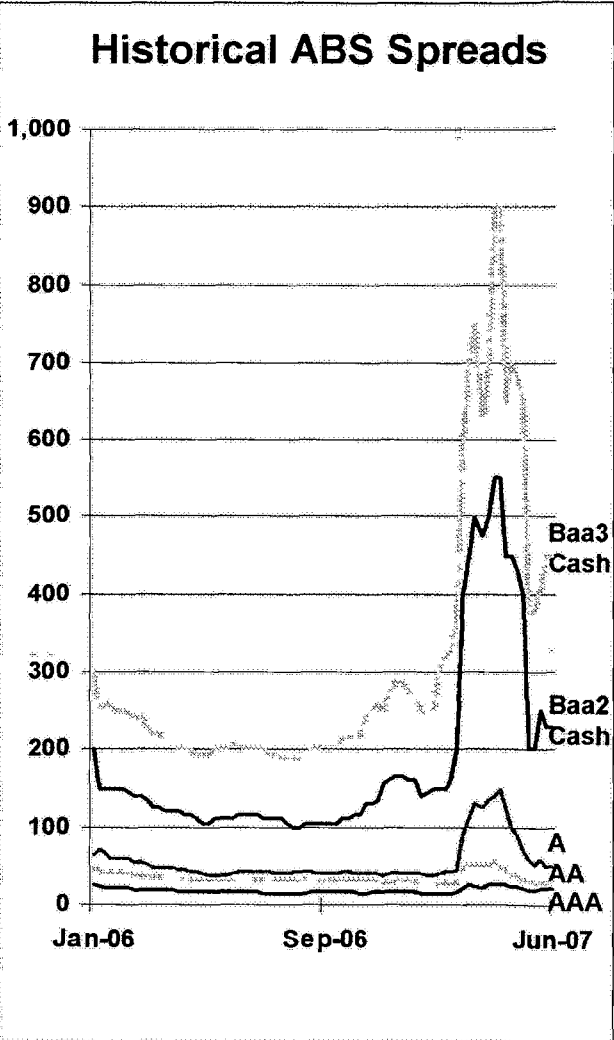
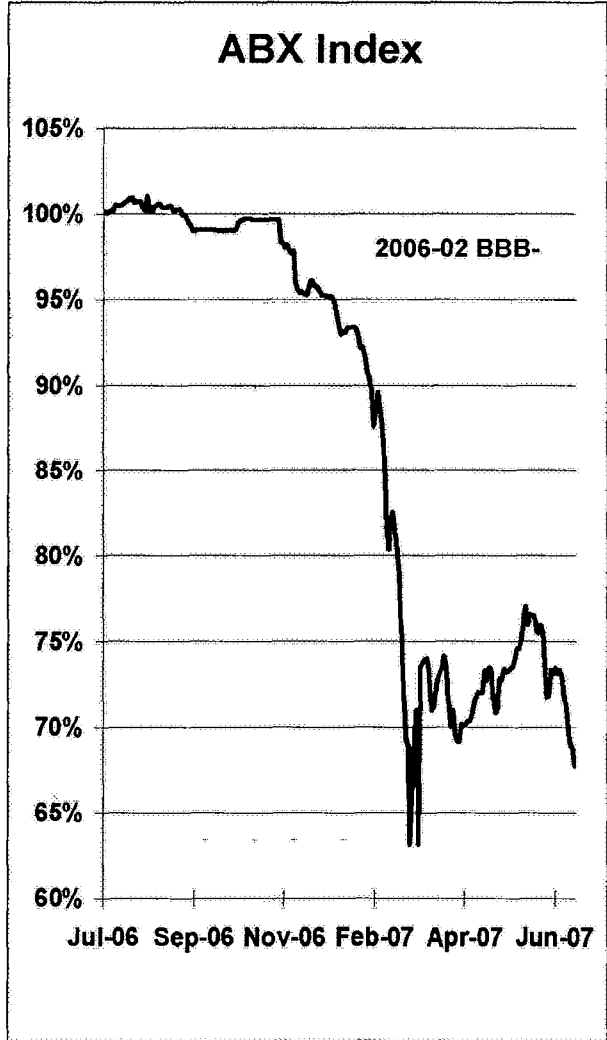
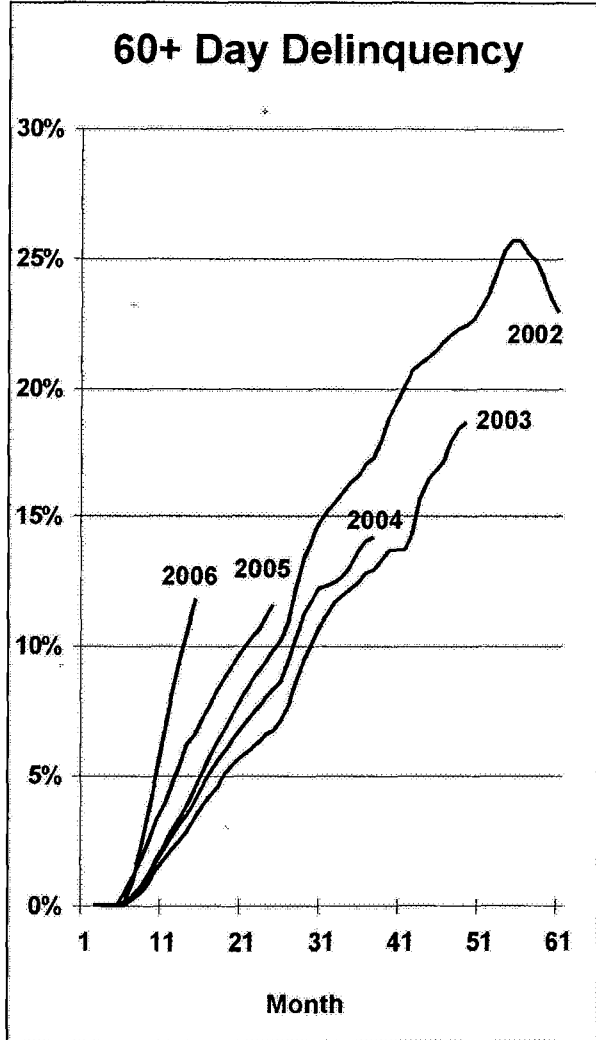
Asset Repricing

Significant spread widening

Reduced ability to distribute securities



# What Happened in the Market<sup>[1]</sup>



(1) Index & spread data as of June 22

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## Market Sensitive Business Model

### CDO Platform

	<b>Origination</b>	<b>Warehousing</b>	<b>Distribution</b>	<b>Secondary Trading</b>
<b>Revenue Flows</b>	<ul style="list-style-type: none"> <li>▪ Structuring fees</li> </ul>	<ul style="list-style-type: none"> <li>▪ Carry on Collateral</li> <li>▪ Mark to Market on Collateral</li> </ul>	<ul style="list-style-type: none"> <li>▪ Placement fees</li> <li>▪ Carry on retained tranches</li> </ul>	<ul style="list-style-type: none"> <li>▪ Market-making</li> </ul>
<b>Risks</b>	<ul style="list-style-type: none"> <li>▪ Market demand</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mark-downs on collateral</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mark-downs on retained tranches</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mark to market volatility</li> </ul>
<b>Risk Mgm't</b>	<ul style="list-style-type: none"> <li>▪ Use of structuring fees to facilitate distribution of higher risk securities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Aggressive marketing of equity &amp; junior tranches</li> <li>▪ Warehouse hedge agreements</li> <li>▪ Agreements with managers to take equity</li> <li>▪ Pricing of deals with majority un-ramped</li> </ul>	<ul style="list-style-type: none"> <li>▪ Use of shorts available in the market</li> <li>▪ Short risky tranches into ML deals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Execution of Single Name &amp; index hedging</li> <li>▪ Near-term enhancements of trading &amp; tech capabilities</li> </ul>



**Multiple risk management options enable effective strategies for stable or volatile markets**



## ML Risk Transformation Strategy

**November 2006**  
**Substantial risk  
in the warehouse**

- Substantial assets in the warehouse
- ML holds full SES & Mark to Market risk

**Dec thru April**  
**Securitization  
& Hedging**

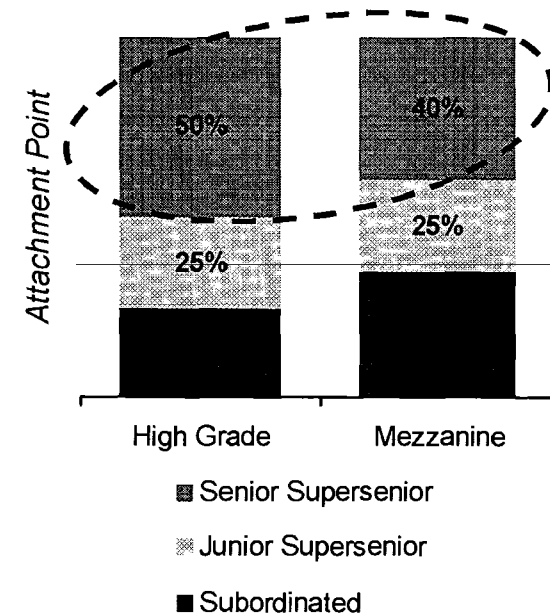
- Sell off of bottom, more risky parts of the capital structure
- Retention of more senior tranches
- External warehouse first loss providers
- Hedges on long collateral

**Today**  
**Risk  
concentrated  
in Supersenior**

- Legacy risk concentrated in lower risk super-senior
- New deals contingent on managers committing to or placing equity

- Investment-Grade Bonds
- Asset-Backed Securities
- Leveraged Loans
- Emerging Market Debt
- Trust Preferred
- Credit Default Swaps
- Commercial Mortgage-Backed Securities
- CDOs
- Alternative Assets

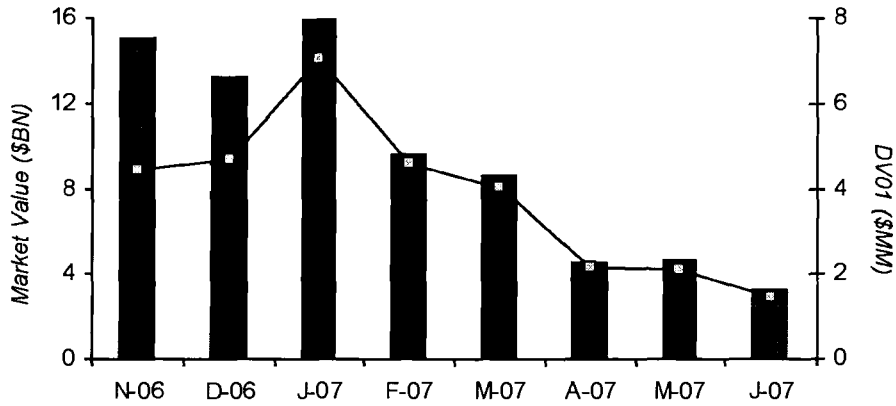
ML risk across individual position



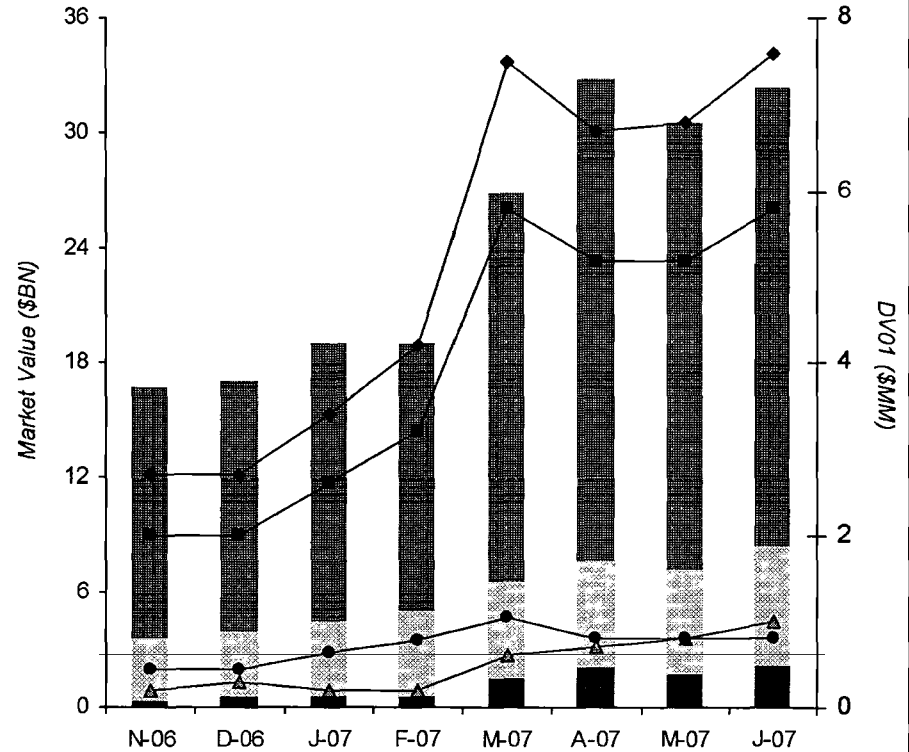


# ML Risk Transformation Metrics

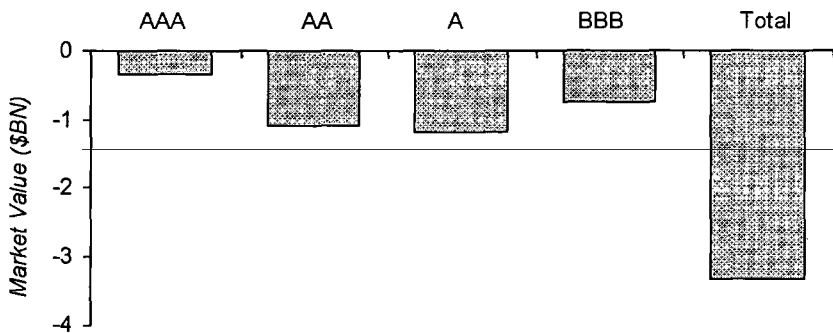
## Risk Reduction: ABS Warehouse



## Risk Growth: Super Senior & Other AAA



## ABS Hedges



DV01 (\$K)	AAA	AA	A	BBB	Total
	132	475	418	250	1,277

Market Value			DV01		
Senior Super Senior	Junior Super Senior	Other AAA	Total Retained	Senior Super Senior	Junior Super Senior
Other AAA			Other AAA		



## Pro Forma Q3 Market Scenario

	High Grade ABS				Mezz ABS				CDO Squared			
	Net MV (\$MM)	Current Spread (BPS)	Potential Spread Shock (BPS)	P&L Impact (\$MM)	Net MV (\$MM)	Current Spread (BPS)	Potential Spread Shock (BPS)	P&L Impact (\$MM)	Net MV (\$MM)	Current Spread (BPS/Px)	Potential Spread/Px Shock (BPS/Px)	P&L Impact (\$MM)
Senior Super AAA	18,675	6	0	0.0	4,900	20	5	-12.3	870	40	5	-2.2
Mezz Super AAA	3,635	25	0	0.0	1,215	115	50	-30.4	640	325	184	-58.9
Junior Super AAA	523	85	20	-5.2	0	--	--	0.0	0	--	--	0.0
AAA	916	125	45	-20.6	816	200	100	-40.8	116	\$89.40	(\$7.20)	-8.4
AA	114	200	90	-5.1	-654	350	100 <sup>[1]</sup>	32.7	189	\$70.00	(\$19.50)	-36.8
A	75	750	350	-13.2	-1,036	900	200 <sup>[2]</sup>	103.6	3	\$54.50	(\$20.50)	-0.6
BBB	68	1500	700	-23.7	-357	1500	300 <sup>[3]</sup>	53.5	24	\$32.50	(\$20.50)	-4.8
<b>Pro Forma P&amp;L Impact</b>				<b>-67.8</b>				<b>106.3</b>				<b>-111.6</b>

**TOTAL = -73.1 MM**

Note: Unless specified shock equal to Q2 actual

(1) Q2 actual spread widening = 200BPS

(2) Q2 actual spread widening = 300BPS

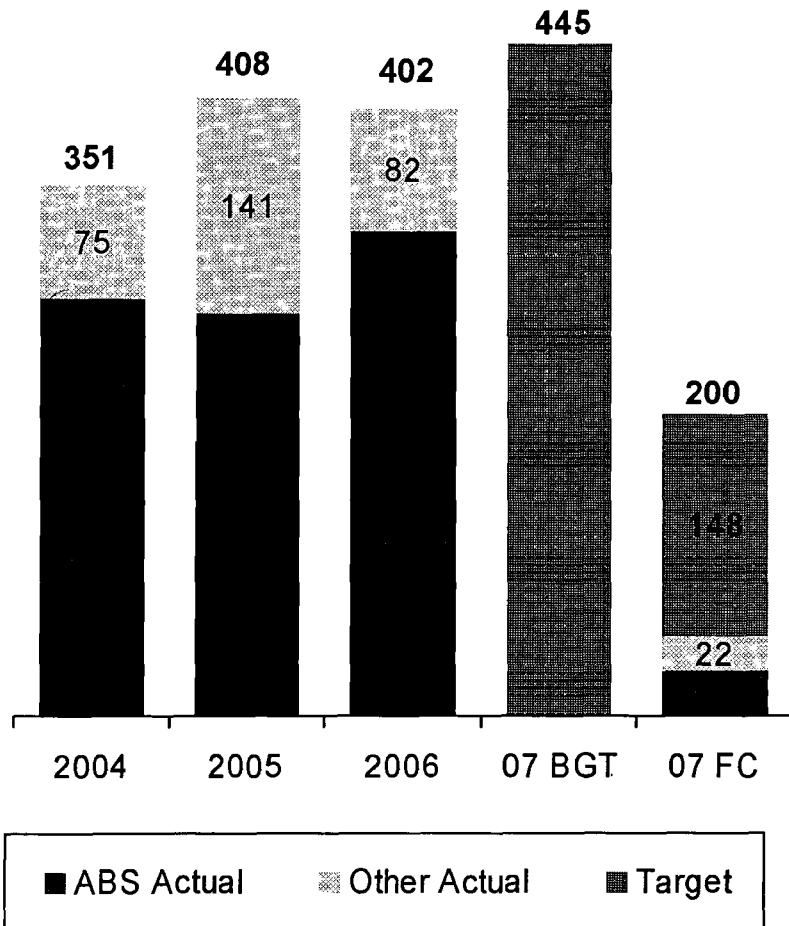
(3) Q2 actual spread widening = 500BPS



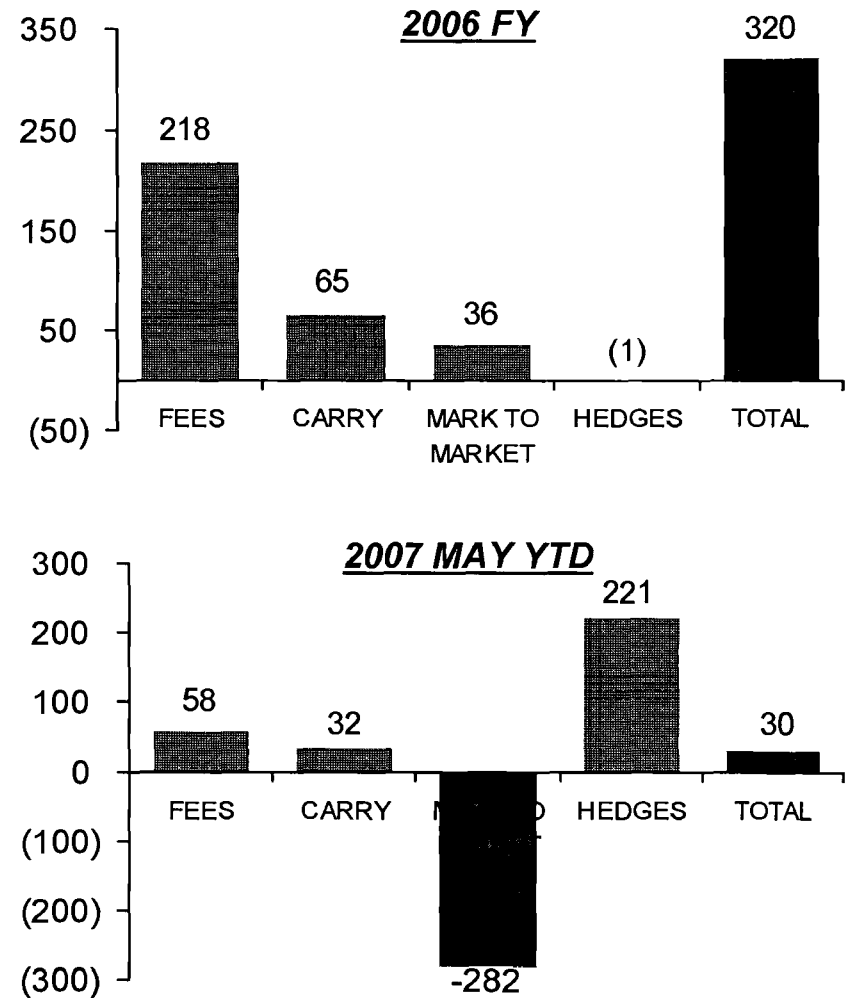
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## Contained Revenue Impact to ML

### Total CDO Revenues (\$MM)



### ABS Revenue Composition (\$MM)





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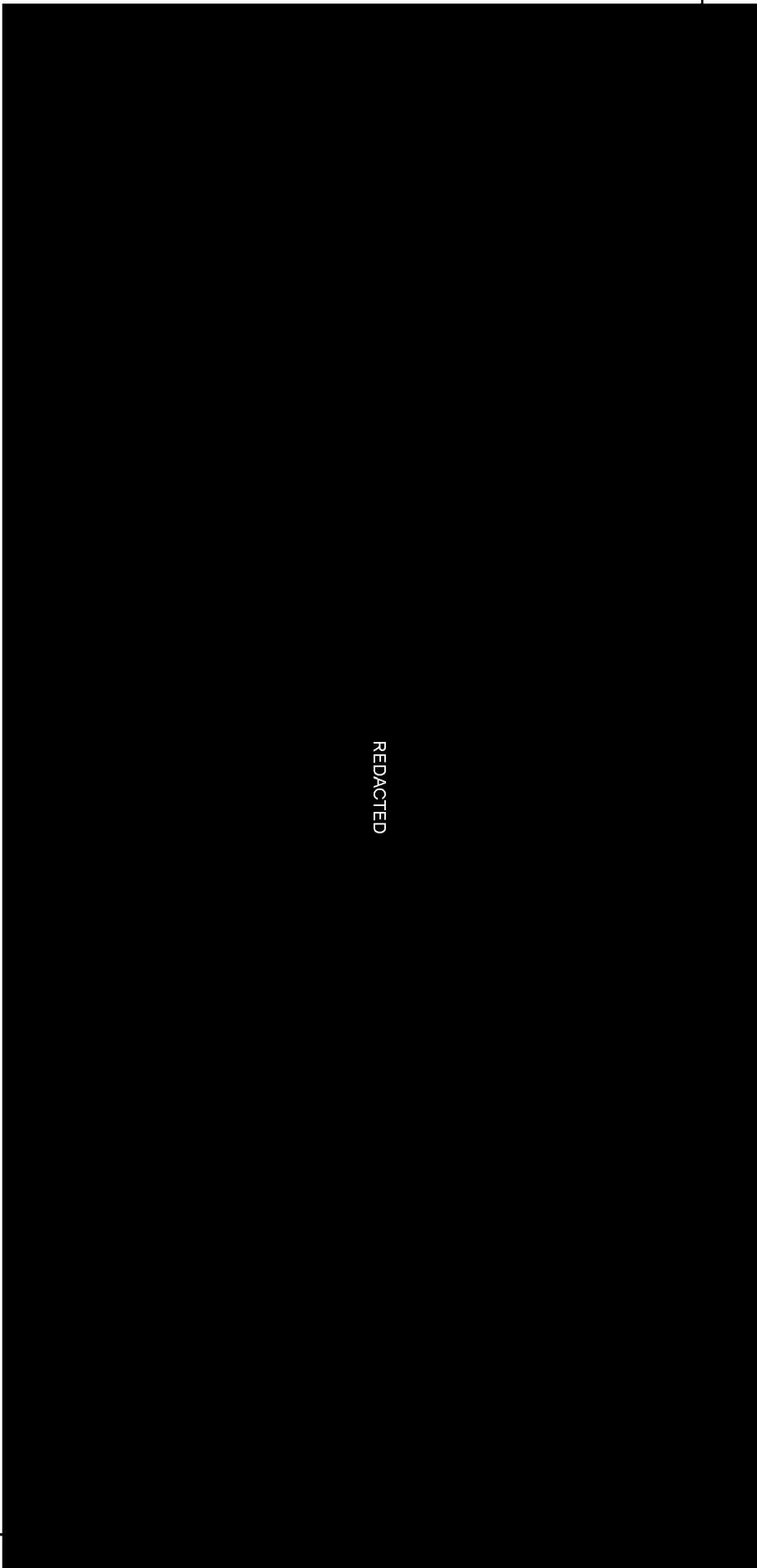


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REDACTED



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## Critical Factors for Successful Fund Management

- Appropriate matching of asset and liability liquidity characteristics
- Well defined investment mandate & guidelines including an appropriate asset type and concentration limit structure
- Robust risk management systems and procedures
- Proper expertise / experience in both trading and operational teams
- Well defined Corporate Governance processes with a clear understanding of implicit and explicit corporate responsibilities



**Strategy Going Forward**

**Quality fee based business**

**Paying away carry to reduce risk**

**Expansion into diverse asset classes**

**More secondary trading to capitalize on reduced new issue activity**

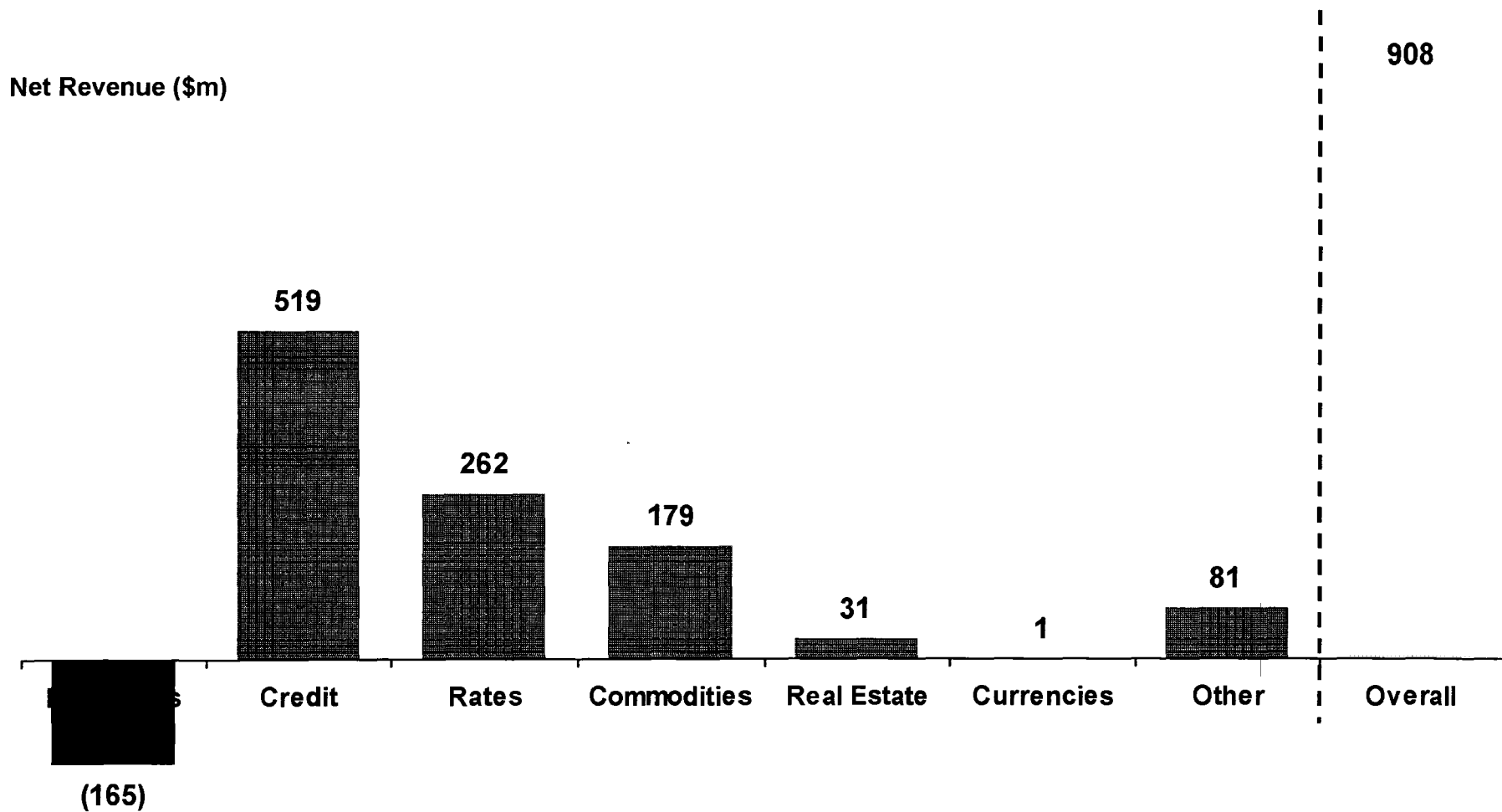
**Continued discipline in financing of illiquid assets**





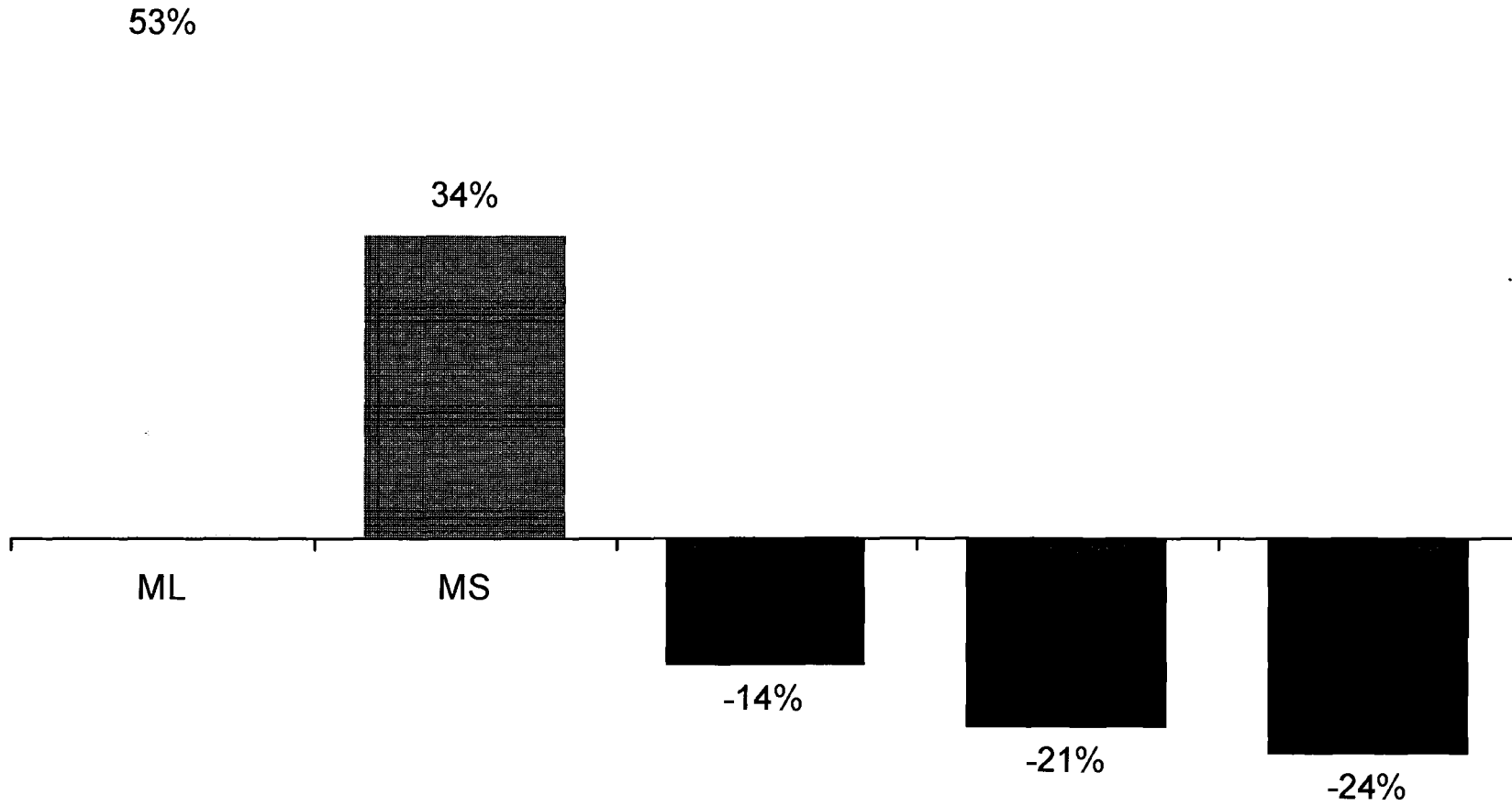
### Impact on FICC 2Q'07 Performance vs. 2Q'06

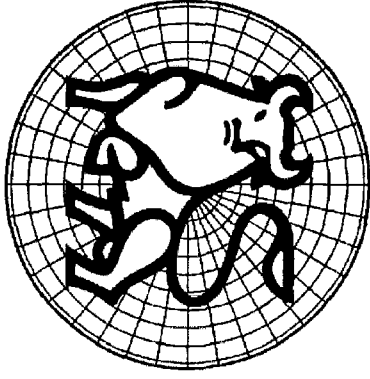
Diversification Effect: Over performance (Underperformance) vs. 2Q'06



## 2Q'07 FICC Results: Competition

Merrill Lynch FICC: Best in Class year on year improvement





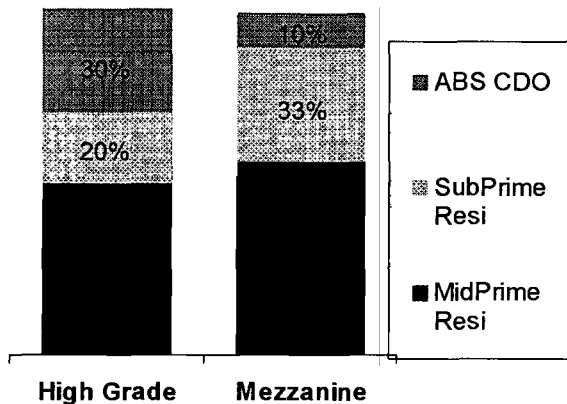
**ABS CDO UPDATE**

- *Appendix*

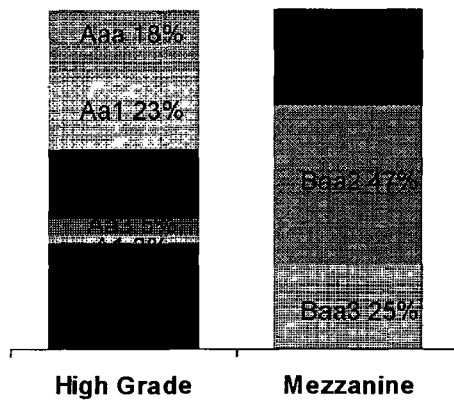
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## Super Senior Risk Explained

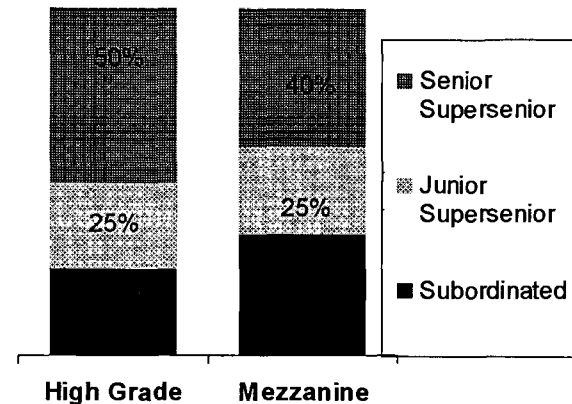
### Portfolio by Asset Type



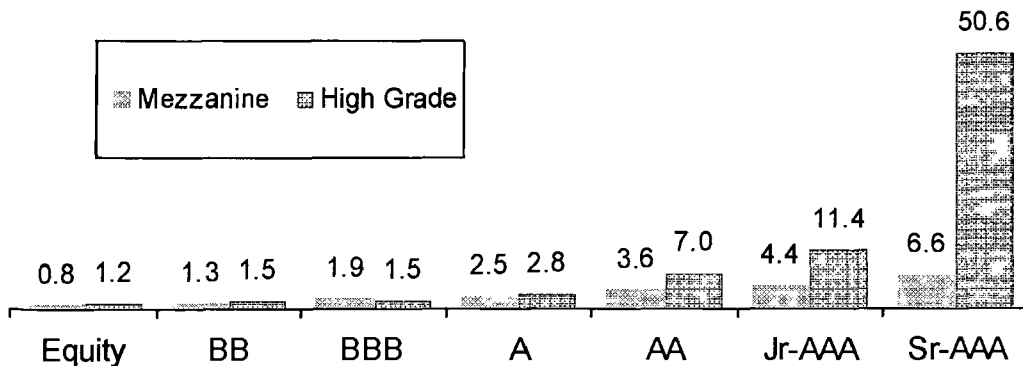
### Portfolio by Rating



### CDO Structure



### Breakeven Multiple<sup>[1]</sup>



- Breakeven Multiples (BEMs) measure the likelihood for a CDO tranche to withstand historical defaults before "breaking even"
- Historical five year cumulative default rate is .79% for a High Grade portfolio, 6.98% for a Mezzanine portfolio



(1) BEM estimates provided by ML research based on a generic portfolio

## Terms

Term	Definition
Prime Mortgage Loans	High-quality mortgage that meets the standards set by Fannie Mae and Freddie Mac and is eligible for purchase or securitization in the secondary mortgage market. Prime mortgage loans have low default risk and are made to borrowers with good credit records. Borrowers with a FICO score of 700 and beyond.
Sub Prime Loans	Mortgages not classified as prime mortgages are generally called Sub prime Loans. Borrowers have a FICO score of 625 and below.
Mid Prime Loans	Mortgages to borrowers with FICO scores between 625 and 700
Alt A	Mortgage loans where the borrower possess a strong credit history but is in need of non-traditional underwriting & processing guidelines
Loan-to-value ("LTV")	The ratio of the amount of the loan to the appraised value or sales price of real property (expressed as a percentage); a high LTV implies more risk than a low LTV, all else being equal
Adjustable Rate Mortgage ("ARM")	A mortgage loan which allows the lender to adjust the interest rate in accordance with a specified index periodically and as agreed to at the inception of the loan
Default Rate	Estimated rate at which the borrower of a loan will default, i.e., fail to repay principal and interest in a timely manner.
Recovery Rate	Estimated percentage of the market value on the loan that a creditor would receive in final satisfaction of the claims on a defaulted credit



## Terms

Term	Definition
Collateralized Debt Obligation ("CDO")	An asset backed security collateralized by a pool of other bonds, which may include ABS or MBS securities
High Grade CDO	CDO whose collateral has an average credit rating of Aa3/A1 by Moodys
Mezzanine CDO	CDO whose collateral has an average credit rating of Baa2/Baa3 by Moodys
Asset Backed Securities ("ABS")	Asset Backed Securities are bonds secured by financial receivables, such as consumer or commercial loans originated by banks, finance companies or mortgage originators
Mortgage Backed Securities ("MBS")	Mortgage Backed Securities are asset backed securities specifically secured by mortgages originated by banks, finance companies or mortgage originators; The term "MBS" is a subset of the more general "ABS" market, which includes other asset classes
TruPS	Trust preferred securities (TruPS) are cumulative preferred stock issued by bank holding companies through a special purpose vehicle. The special purpose vehicle is wholly owned by the bank holding company and is usually a trust. It sells the TruPS to investors and uses the proceeds to purchase a subordinated note from the bank holding company.
ABX Index	A market index of home equity asset backed securitization bonds for a particular credit grade and origination vintage; there are 20 referenced securities underlying the index which are equally weighted
Warehouse	An asset warehouse is a loan provided by the bank arranging the CDO transaction to assist the CDO manager in purchasing assets. The warehouse loan bridges the funding requirements of the CDO fund until the portfolio of assets is large enough to generate sufficient interest receipts to warrant the issuance of the CDO's notes.
CP Conduit	CP conduit is a special purpose entity that sells commercial paper (CP) to capital market investors to finance its purchase of the collateralized security.



## Terms

Term	Definition
CDO Tranche	Division or slicing of the credit risk of the reference portfolio into different classes, known as tranches. In accordance with its seniority, each tranche enjoys rights and priorities concerning payments generated by its collateral.
Super Senior Tranche	Senior most tranche in a CDO capital structure. In bankruptcy the proceeds from liquidated cash CDO assets will first be used to meet the claims of the most senior, triple-A rated debt tranche. Only then will proceeds flow to the next most senior tranche of notes, and so on.
Junior / Senior Super Senior Tranche	The bottom 33% of the total Super senior tranche of a high grade CDO is termed as the junior super senior and the top 67% remaining is termed as the senior super senior tranche. For a mezzanine CDO deal the bottom 40% of the super senior tranche is termed the junior super senior tranche and the remaining top 60% of the super senior tranche is termed the senior super senior tranche
First Loss Tranche	The final tranche within the CDO structure, in terms of seniority of sequential payment claims, is the equity portion. As this is the junior most position in the capital structure, the equity is also described as the 'first-loss' piece.
DV01	A measure of how much a bond's price will increase in response to a one basis point spread widening.
Negative Basis Trade	For single name credit trading, a trade in which the trader buys a bond and buys credit default swap protection on the same name. If the basis is negative - that is, the credit default swap spread is less than the bond spread - the trader can receive a spread without taking on any default risk.
SES	An estimate of the change in economic value of the current static position based on a severe but not unrealistic credit spread steepening and widening event, of a magnitude which would be expected once in a ten year period. The amount of widening and steepening is calibrated to asset type and to credit ratings. It is not an estimate of income statement impact. (Many affected positions do not have MTM accounting.)

