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# CDO Market Overview & Outlook

**“CDOs in the Heartland”**

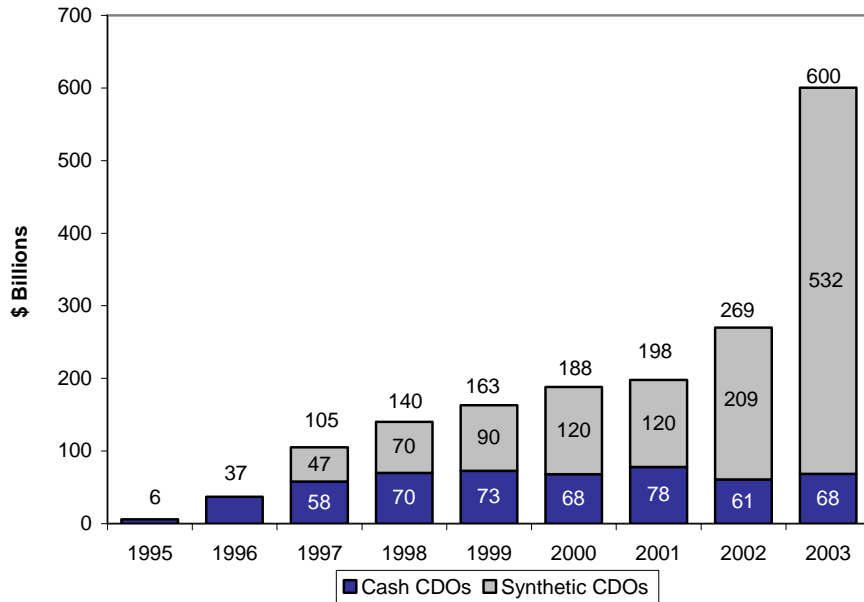
Lang Gibson

Director of Structured Credit Research

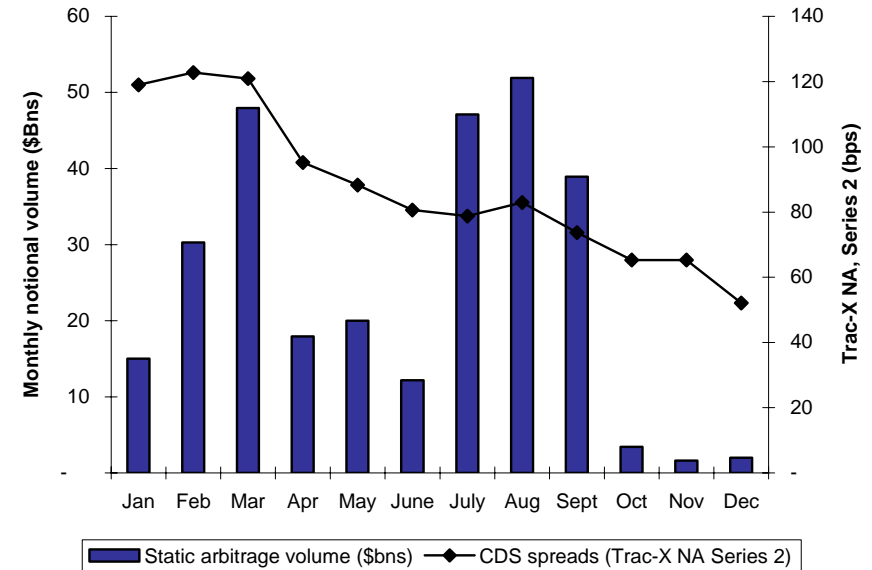
March 25, 2004

# 2003 featured record volumes despite diminishing arbitrage

**Global CDO Growth: 1995 - 2003**



**Monthly Tailored IG Synthetic Volume Vs CDS Spreads - 2003**



Note: excludes index-based trades

**2004 vs 2003 CDO Volume Comparison (Jan-Feb) <sup>1</sup>**

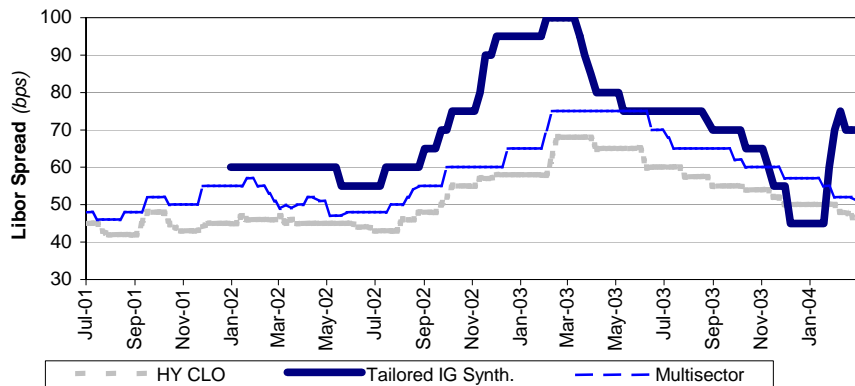
Cash CDOs	2003	2004	Growth	Synthetic CDOs <sup>2</sup>	2003	2004	Growth
<b>Total</b>	<b>4,564</b>	<b>8,325</b>	<b>82%</b>	<b>Total</b>	<b>55,083</b>	<b>28,318</b>	<b>(49)%</b>
Multisector CBOs	3,008	6,115	103%	Static Arbitrage	45,316	3,537	(92)%
HY CLOs	1,145	1,299	13%	Balance sheet	4,971	16,250	227%
Other	412	911	121%	Ind. Managed	4,796	8,531	78%

<sup>1</sup> YTD 2004 issuance through March 4

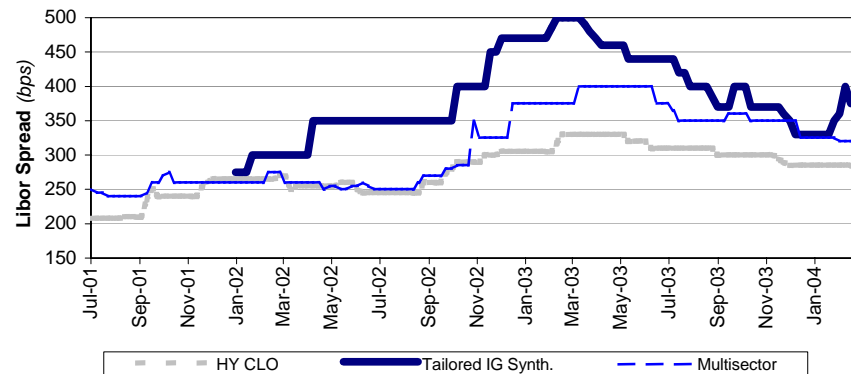
<sup>2</sup> Synthetic issuance is often not reported (if at all) until quarter-end

# Although CDO spreads finished the year tighter ...

**AAA Major CDO Subsector Spreads**



**BBB Major CDO Subsector Spreads**

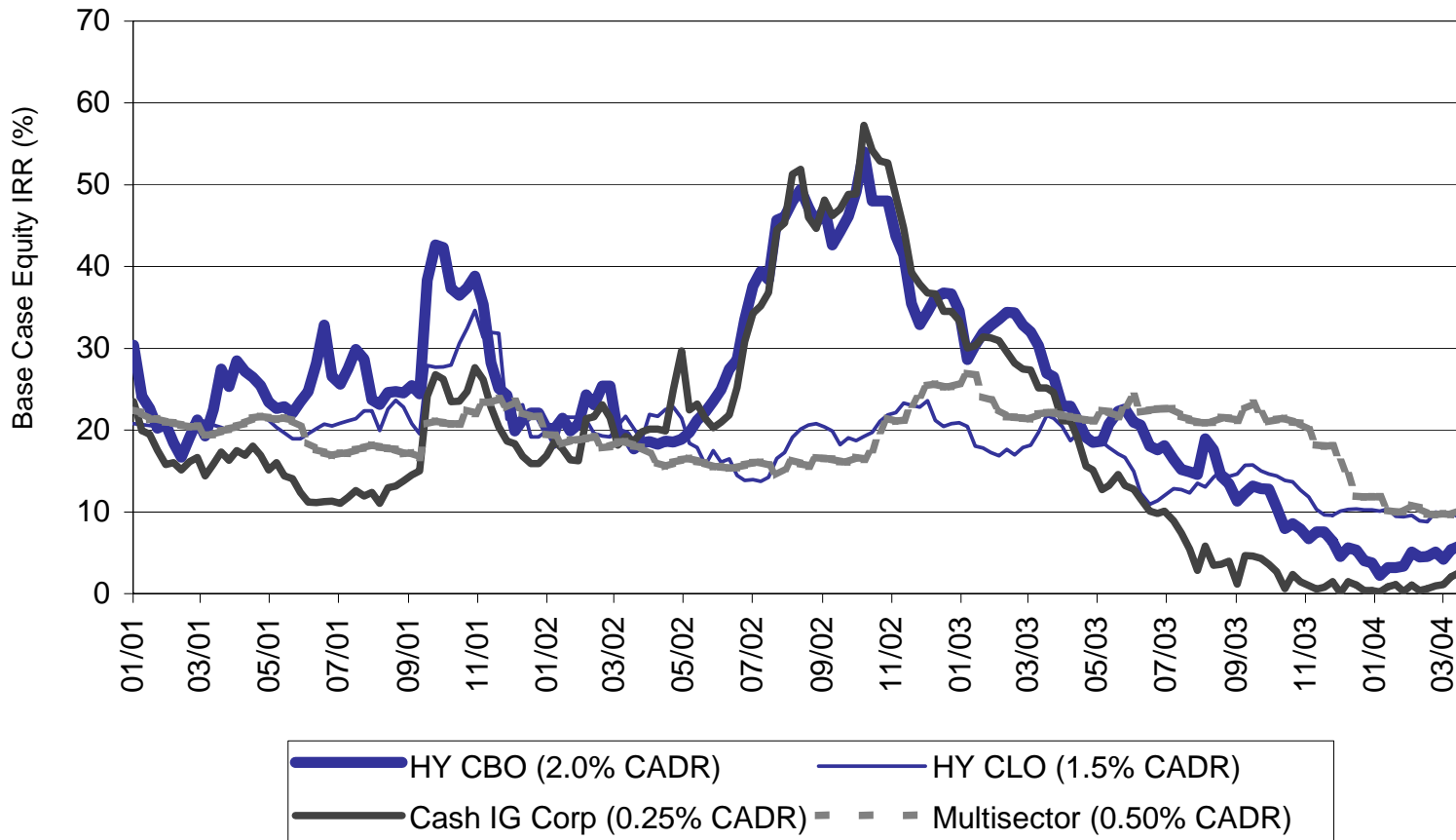


## Primary Spreads in the Major CDO Subsectors

	HY CLO	Tailored IG Synthetics	Multi-sector
AAA	45	70	51
AA	70	150	115
A	145	250	175
BBB	280	375	320
BB	725	N/A	NA

# ... Equity IRRs suggest further tightening ahead ...

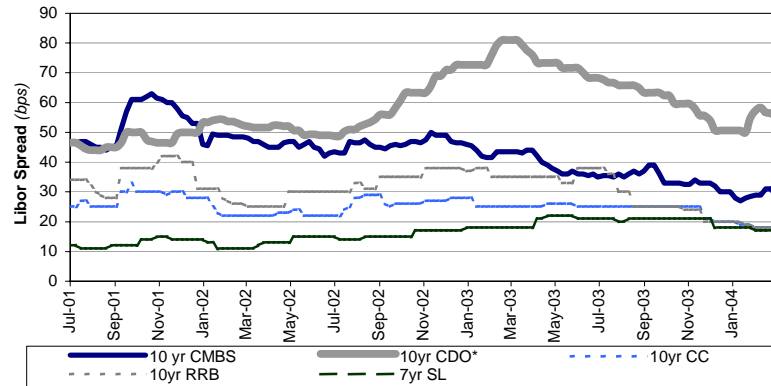
CDO Base Case ROE Barometers, as of March 19, 2004



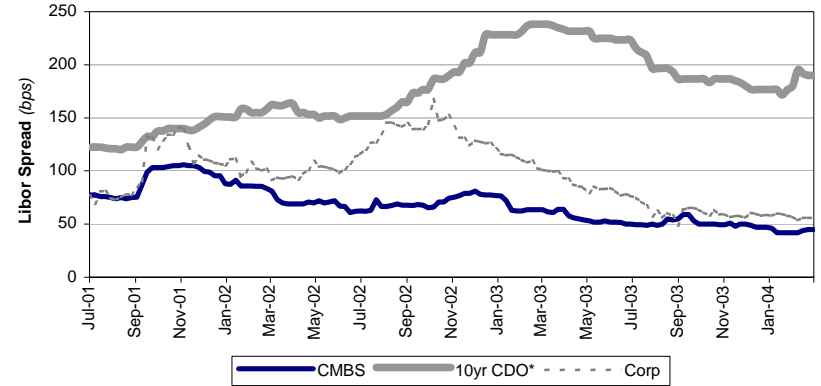
CADR = Constant Annual Default Rate.

# ... as does the growing pickup in CDOs to competing sectors across the capital structure

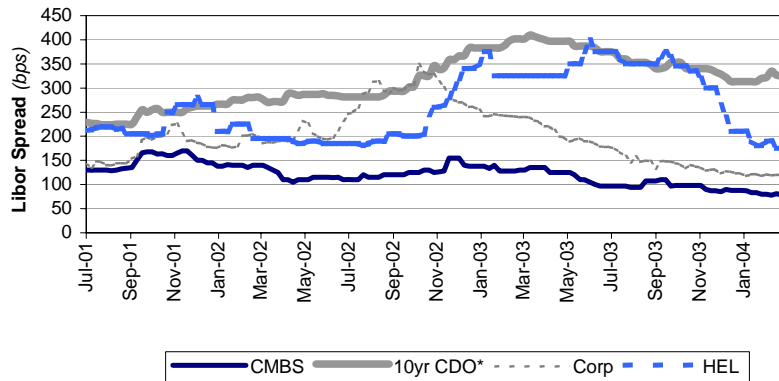
## AAA CDOs Versus Competing Sectors



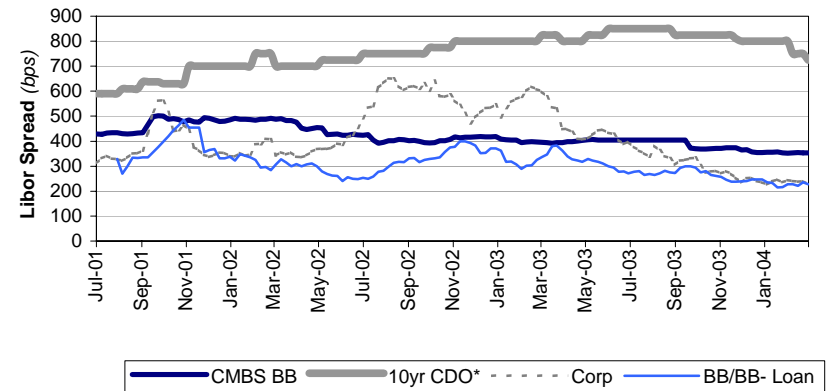
## A CDOs vs. Same-Rated CMBS and Corporates



## BBB CDOs vs. Same-Rated CMBS, Corporates, and HEQ



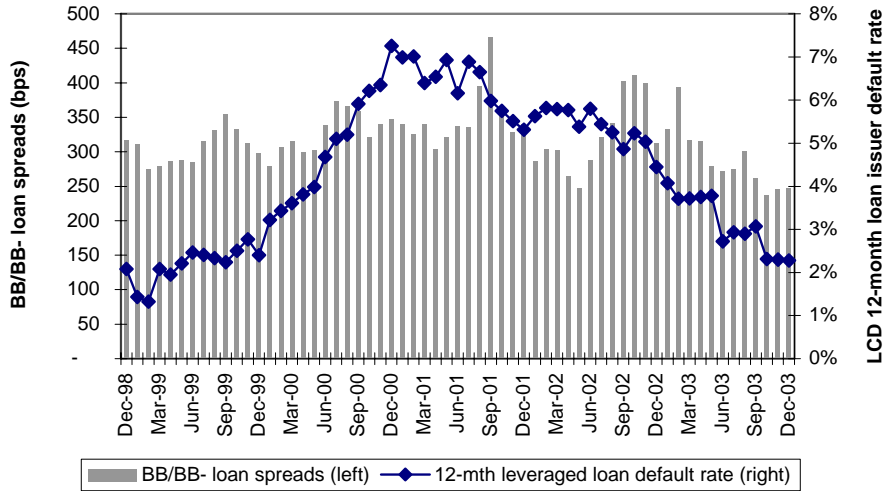
## BB CDOs vs. Same-Rated CMBS and Corporates



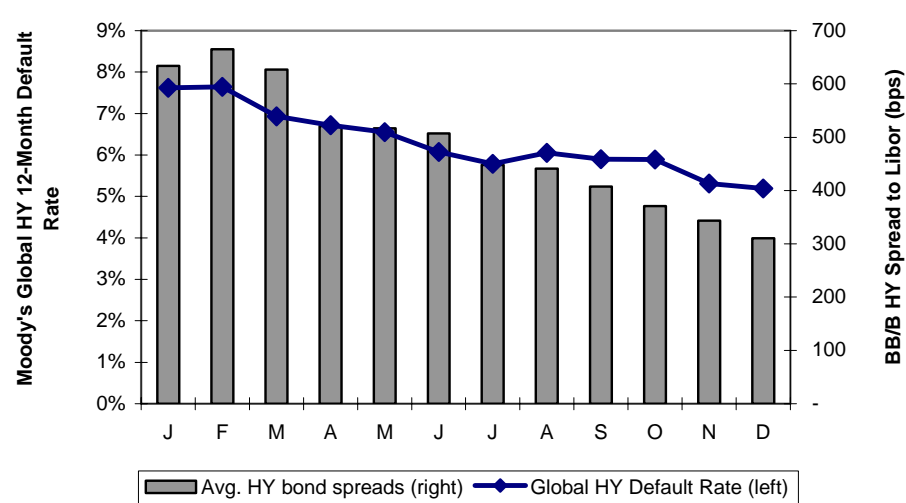
Note: CDO spread calculated as an average of the three major CDO sub-sectors ( HY CLO, IG synthetic, multi-sector)

# While both actual and market implied defaults continue to fall across all sectors ...

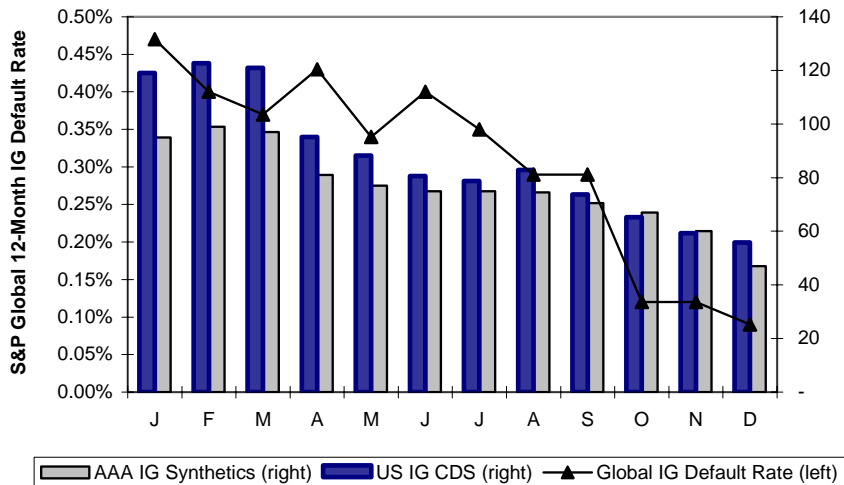
Leveraged loan default rate versus spreads: 5-Year Lookback



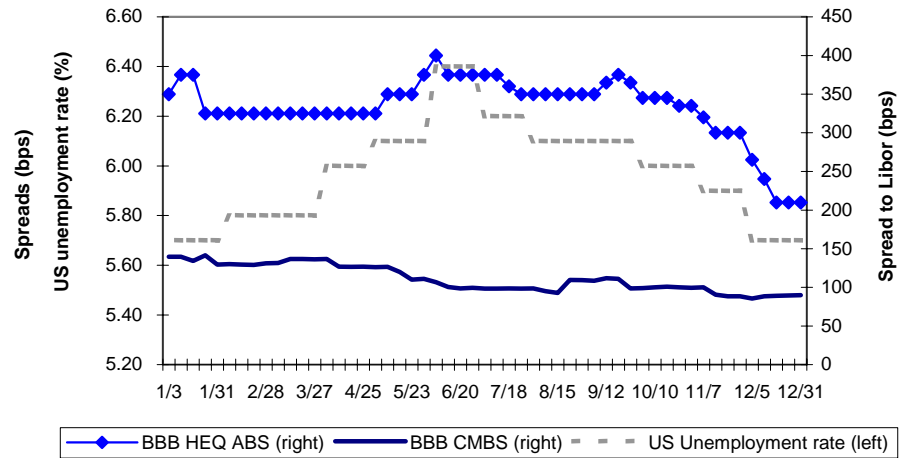
US HY Spreads Versus Global HY Default Rate--2003



Monthly IG Collateral and CDO Spreads Vs Defaults--2003

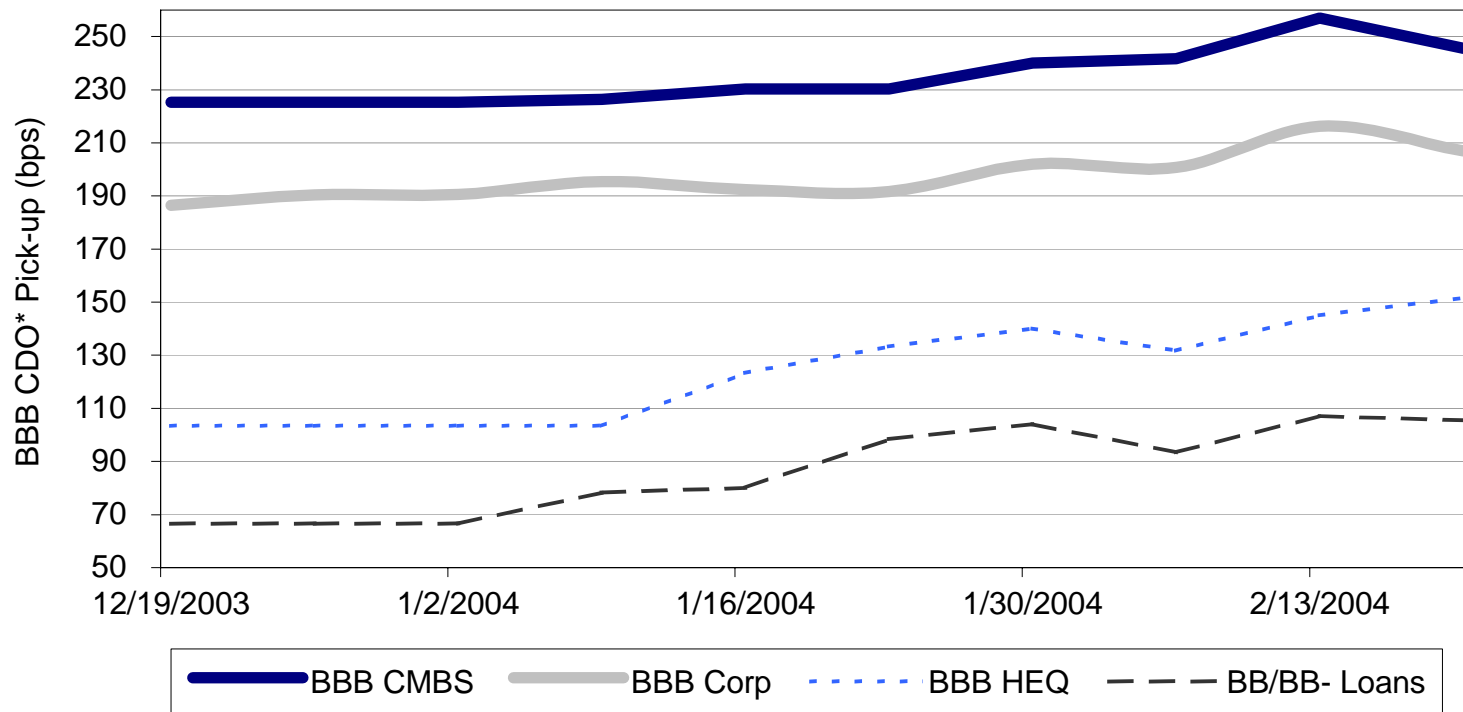


Benchmark Mezzanine SF Spreads Vs Unemployment -- 2003



# ... The CDO pickup to competing assets grew to particularly wide levels recently ...

## BBB CDO\* Pick-up to Competing Sectors and Collateral: Dec. 19 to Feb. 20



\* CDO spread calculated as an average of the three major CDO sub-sectors ( HY CLO, IG synthetic, multi-sector)

# ... Prompting us to upgrade CDO notes in most rating categories to High RV last month

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## New Issue CDO Recommendation Matrix

Published February 20, 2004

	IG Synthetics	High Yield CLOs	Multi-sector CBOs
<b>AAA</b>	<b>High RV (+2)</b>	<b>High RV (+1)</b>	Medium RV
<b>AA</b>	Medium RV	<b>High RV (+1)</b>	<b>High RV (+1)</b>
<b>A</b>	<b>High RV (+1)</b>	<b>High RV (+1)</b>	<b>High RV (+1)</b>
<b>BBB</b>	<b>High RV (+1)</b>	Medium RV	<b>Medium RV (+1)</b>
<b>Equity</b>	Low RV	Low RV	<b>Low RV (-1)</b>

RV: Relative Value

Note: (+1) / (-1) indicates a one-notch upgrade / downgrade in our recommendation since December 19, 2003

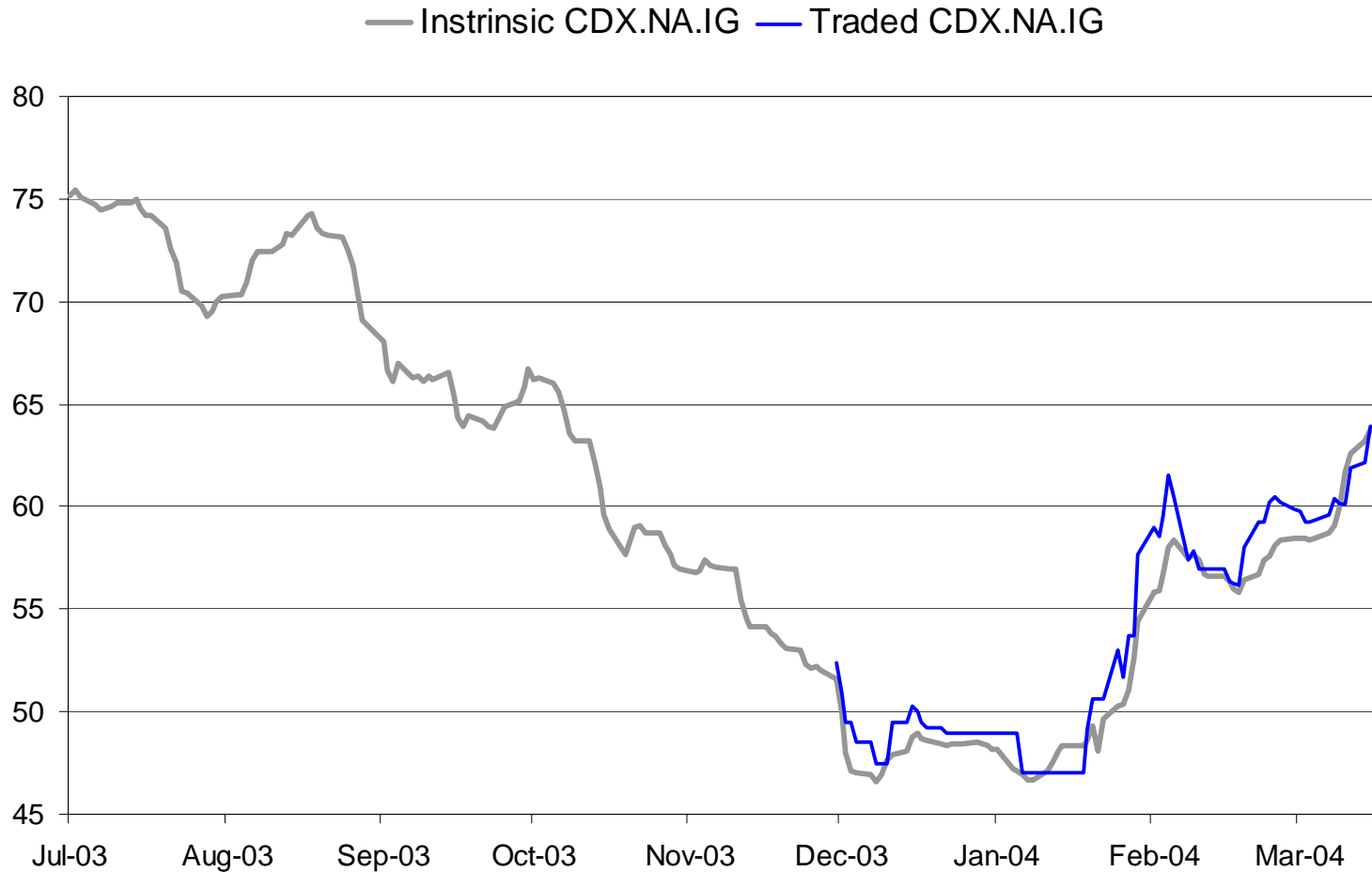


# However, a few CDO note categories have a disproportionately high level of downgrades

## Rating Share of Moody's 2003-03 Global CDO Tranche Downgrades

	Total	HY CBOs	IG Synthetic Arbitrage	HY CLOs	Cash IG Corporate	Synthetic Bal. Sheet	Multisector CBOs
Aaa	9%	9%	11%	2%	6%	7%	<b>19%</b>
Aa	16%	13%	<b>25%</b>	17%	17%	18%	13%
A	13%	9%	19%	11%	13%	21%	21%
Baa	28%	26%	23%	<b>33%</b>	40%	18%	<b>46%</b>
Ba	17%	20%	12%	19%	15%	15%	2%
B	10%	12%	6%	10%	8%	15%	0%
Caa	6%	8%	5%	7%	1%	5%	0%
Ca	2%	4%	0%	0%	0%	1%	0%
Total	1,078	541	219	88	86	73	48

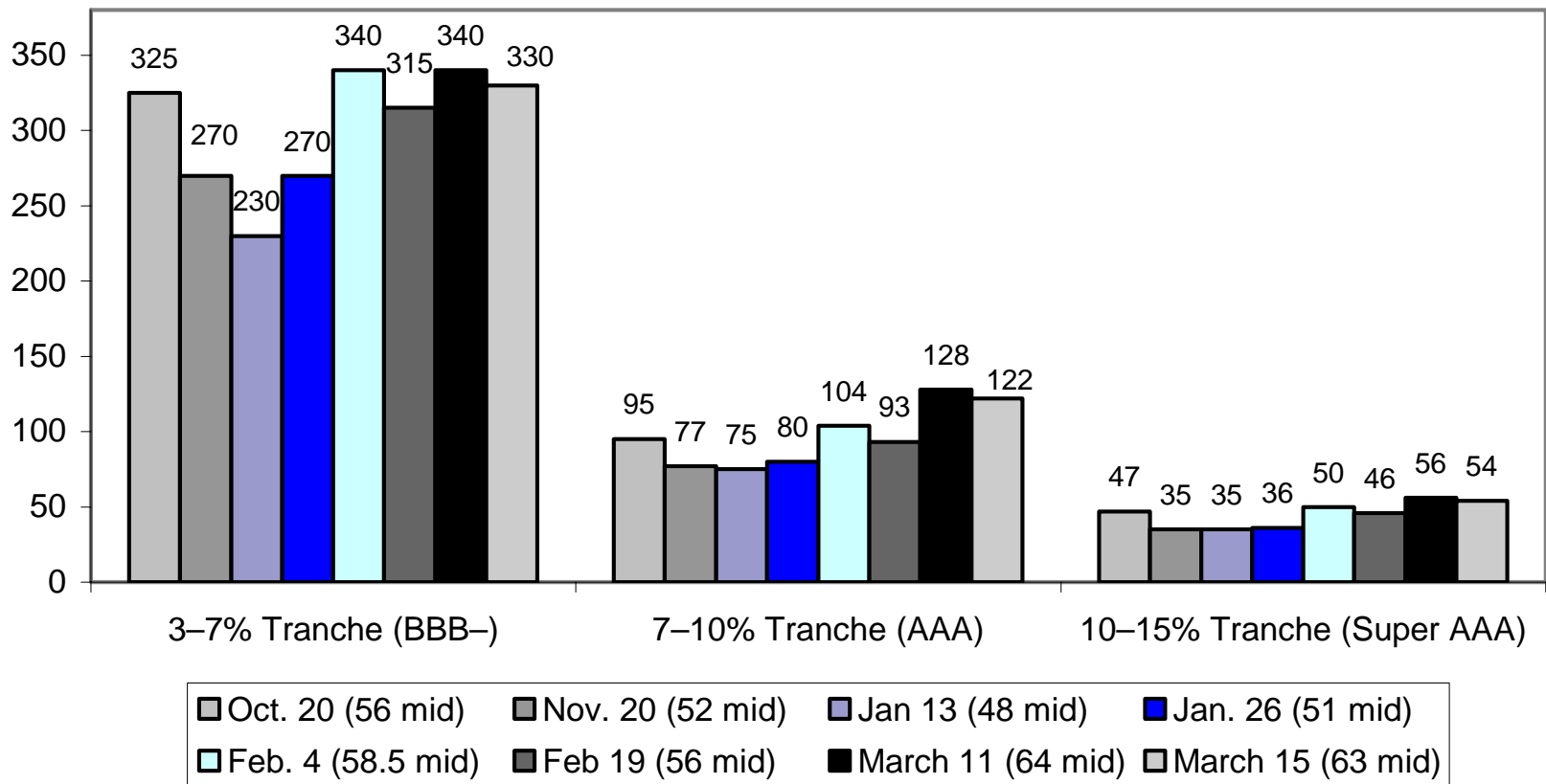
# Significant IG CDS spread widening over the past few months ...



Note: Intrinsic CDX calculated as average mid-market spread of the index's 125 CDS names haircut by 7% (assumed value for the Restructuring credit event, which is not included in the index but is included in each CDS spread)

# ... Has driven iBoxx CDOs to historically cheap levels ...

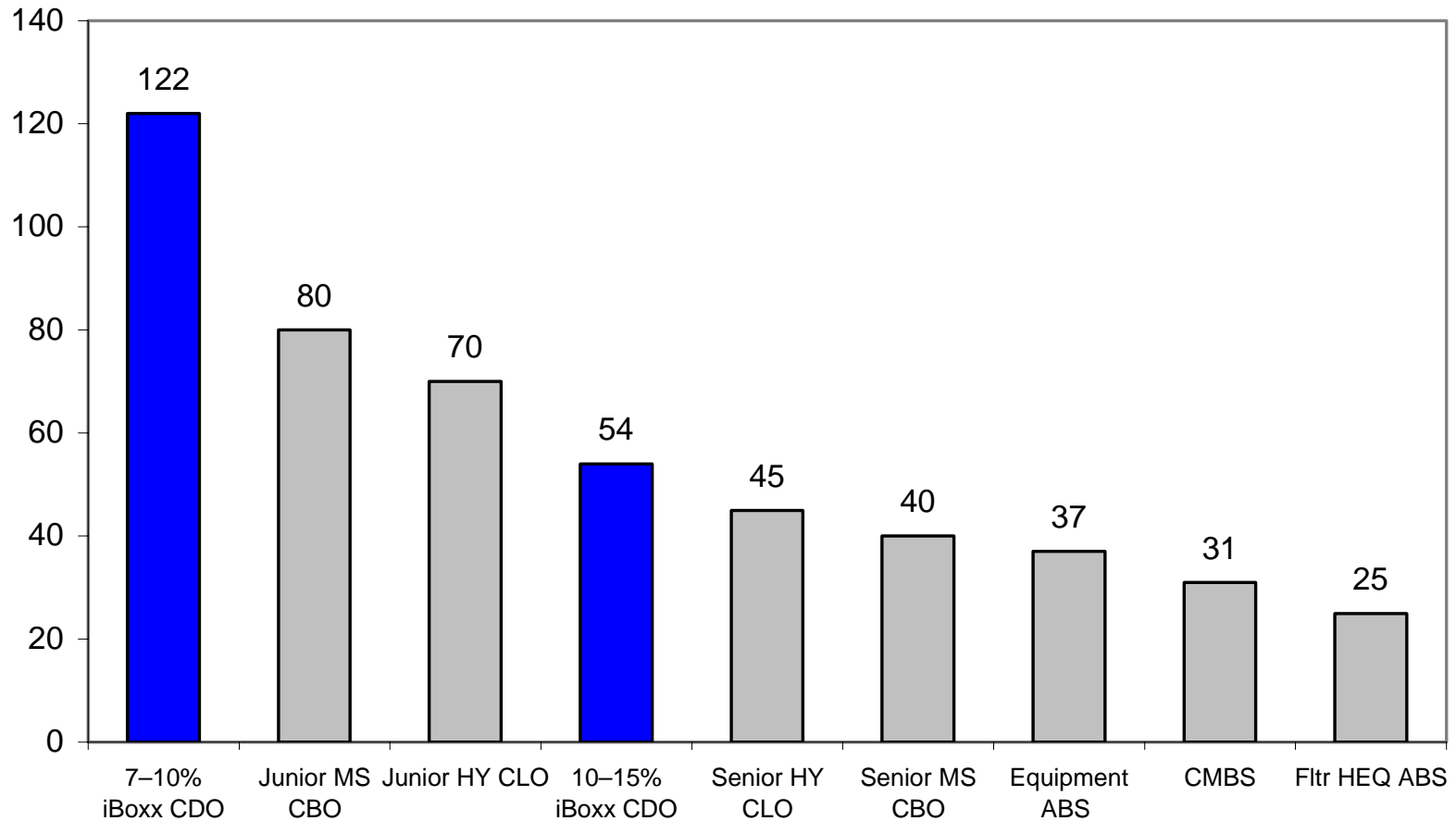
## Historical iBoxx Tranche Pricing Since Product Inception (Bid Side)



... Particularly in the senior classes

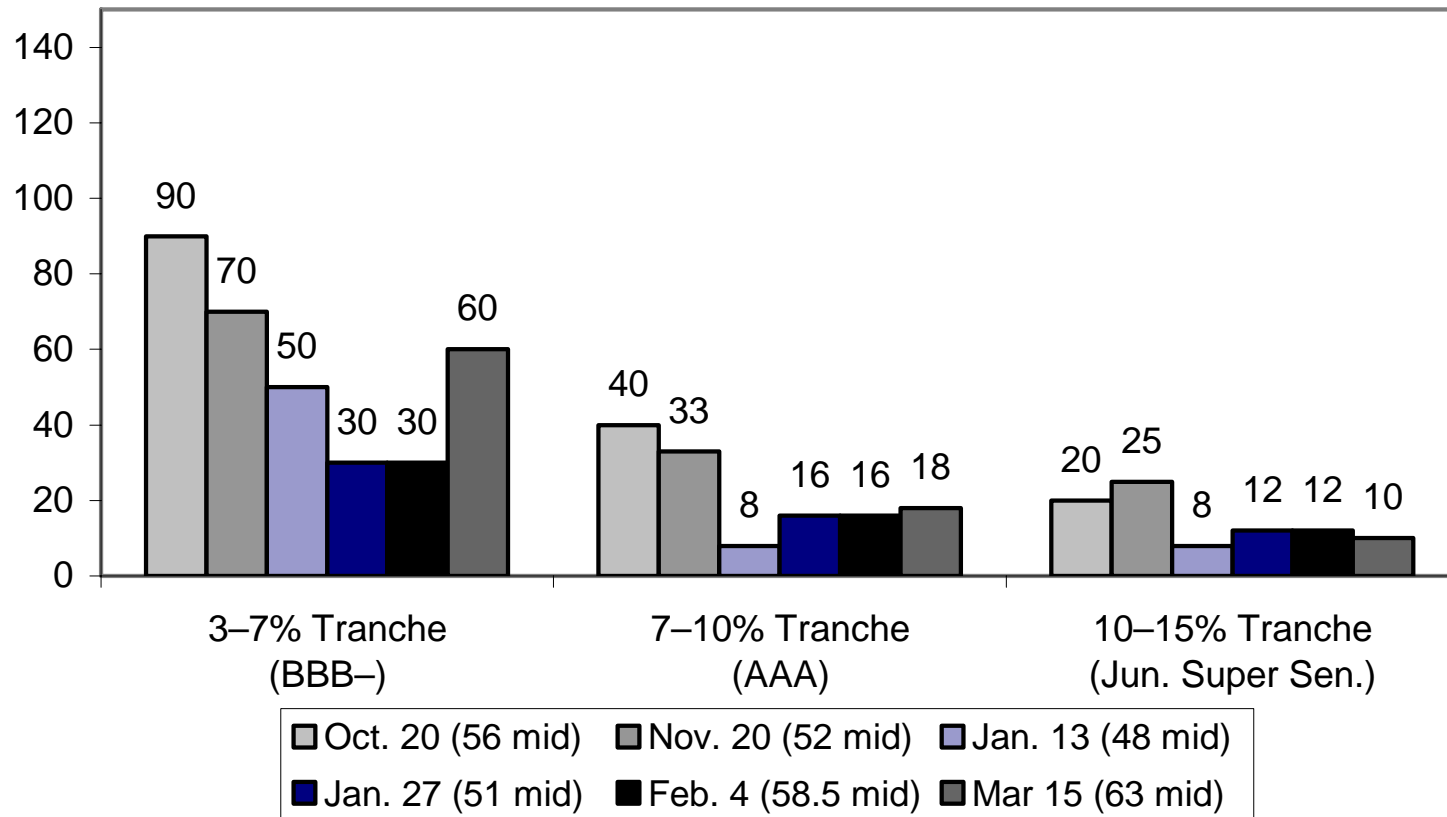
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### Triple-A High Credit Spread Alternatives



# Furthermore, iBoxx CDO bid-offers have fallen significantly from launch levels

## Bid/Offer Spreads on iBoxx CDO Tranches



# Relative value lies in senior and equity tranches

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## Full iBoxx CDO Capital Structure

Pricing: March 15 (CDX Mid = 63 bps)

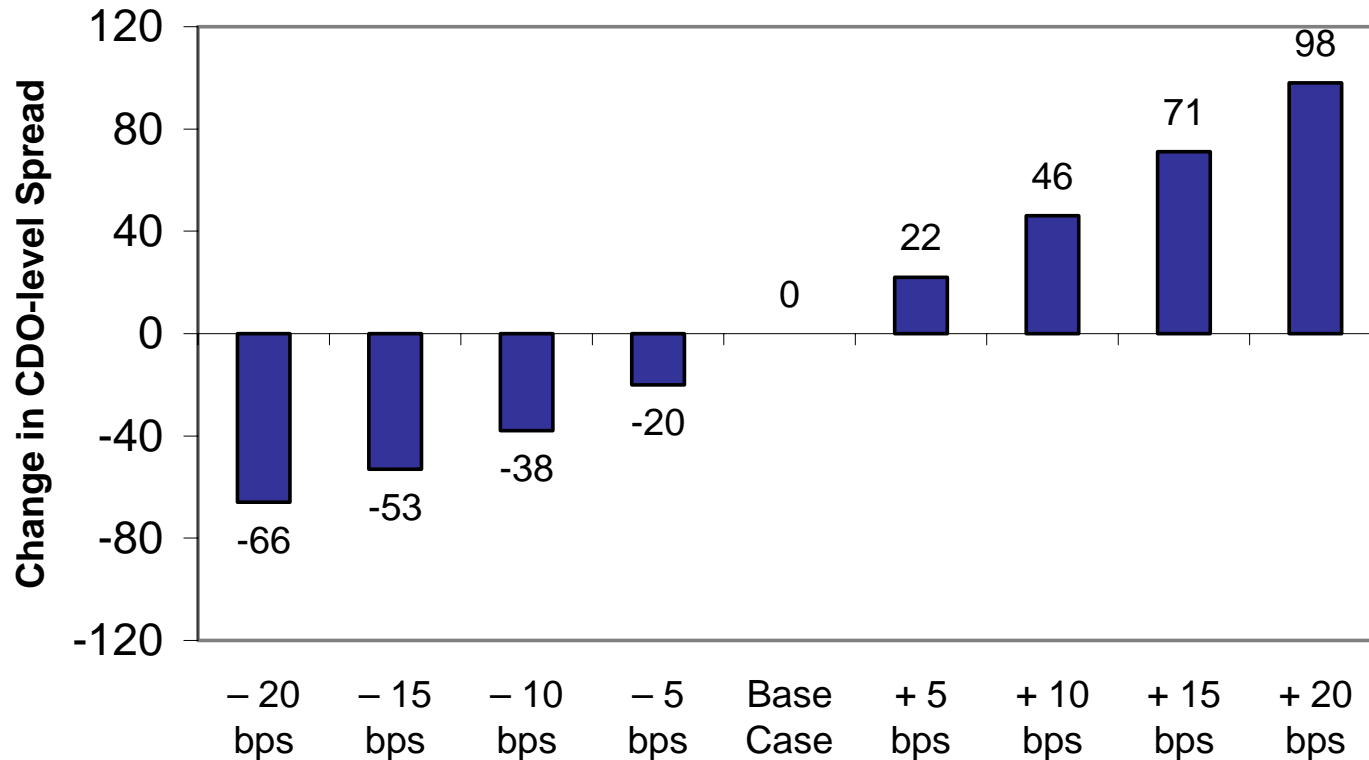
Tranche	Width	Rating	Bid	Mid	Offer	Implied Correlation
0% - 3% *	3%	NA	1,315	1,355	1,395	20.5%
3% - 7%	4%	BBB-	330	360	390	***
7% - 10%	3%	AAA	122	131	140	19.0%
10% - 15%	5%	Super-AAA	54	59	64	24.0%
15% - 30%	15%	Super-AAA	13	17	21	33.0%
<b>Weighted Average Funding Cost</b>			<b>61</b>	<b>64</b>	<b>68</b>	

\* 0% - 3% equity tranche is actually quoted as an upfront payment (e.g., 40%) plus 500 bps running coupon. For calculating the funding cost here, we simply amortize the upfront payment over five years

# iBoxx CDO spreads are leveraged with respect to CDX index spreads ...

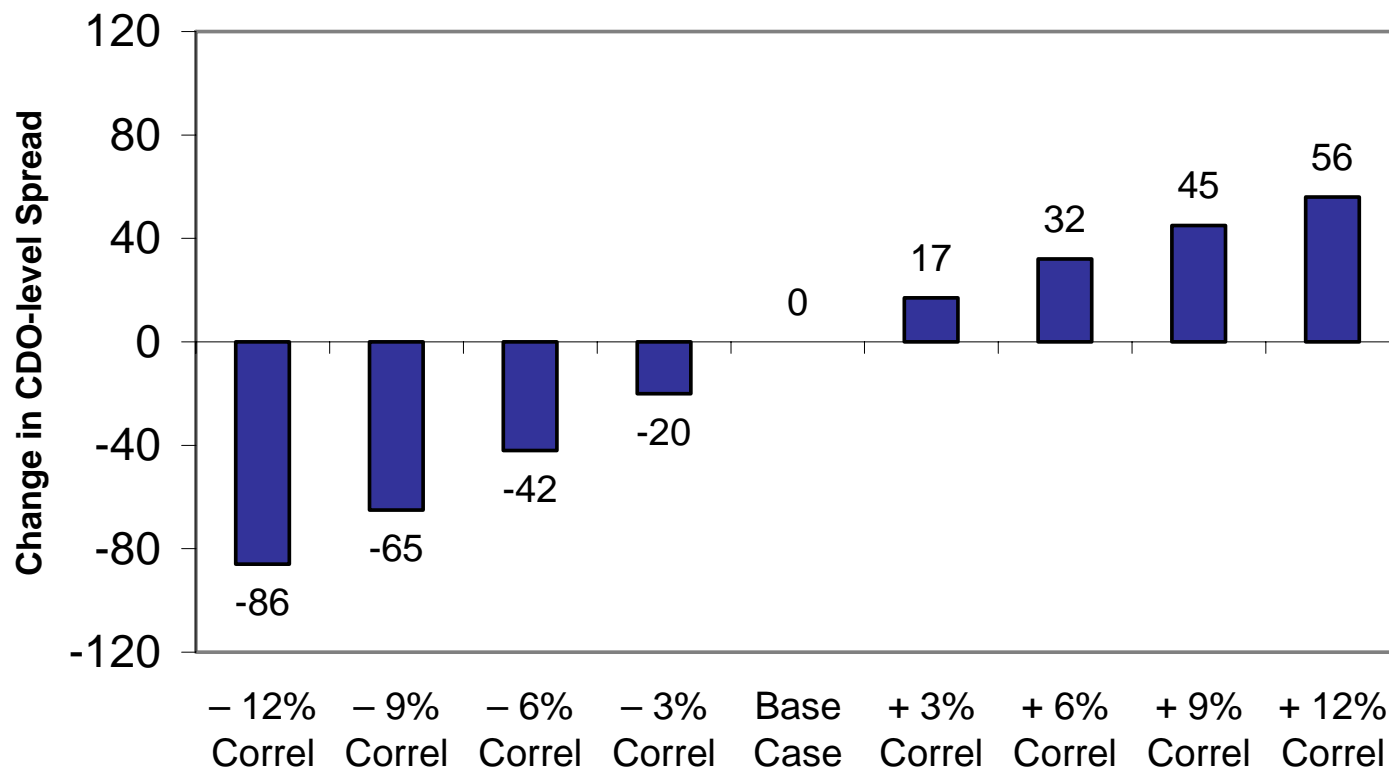
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## 7% - 10% iBoxx Tranche Sensitivity to CDX Average Spread



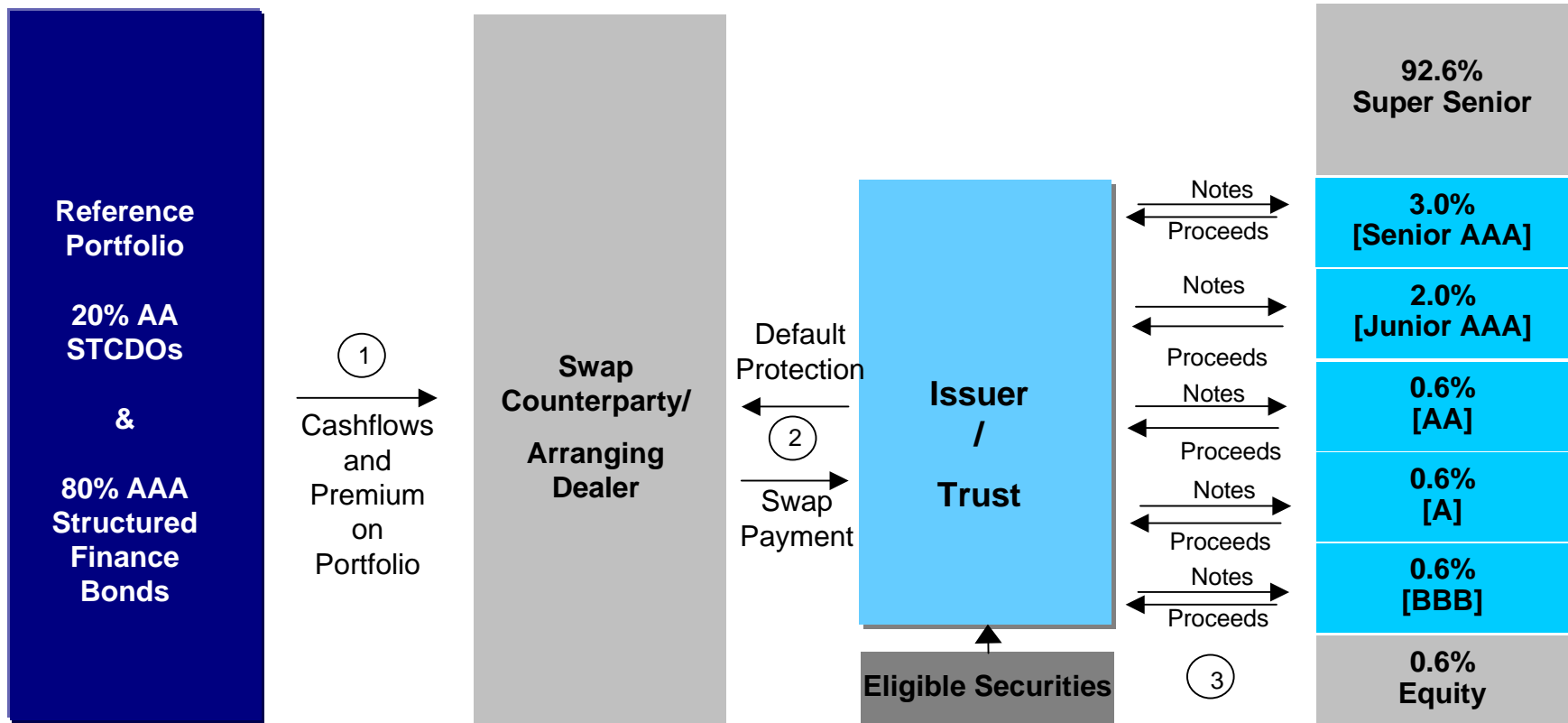
# ... and benefit from declining correlations

## 7% - 10% iBoxx Tranche Sensitivity to CDX Average Correlations





# Junior AAA STCDO-squared tranches offer the highest carry over a benign credit period



1. Cash flows and premium on the Reference Portfolio are transferred to Arranging Dealer.
2. The default swap premium paid by Dealer to the Issuer is in exchange for the credit protection provided.
3. The proceeds from the note issuance are invested in highly rated Eligible Securities.

# Legal Disclaimer

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The charts and data herein is information published in recent Structured Credit Strategy research reports and can be accessed on Banc of America Securities' Corporate & Institutional Portal, <http://www.bofa.com/login>