Current Conditions & Outlook in Credit Markets

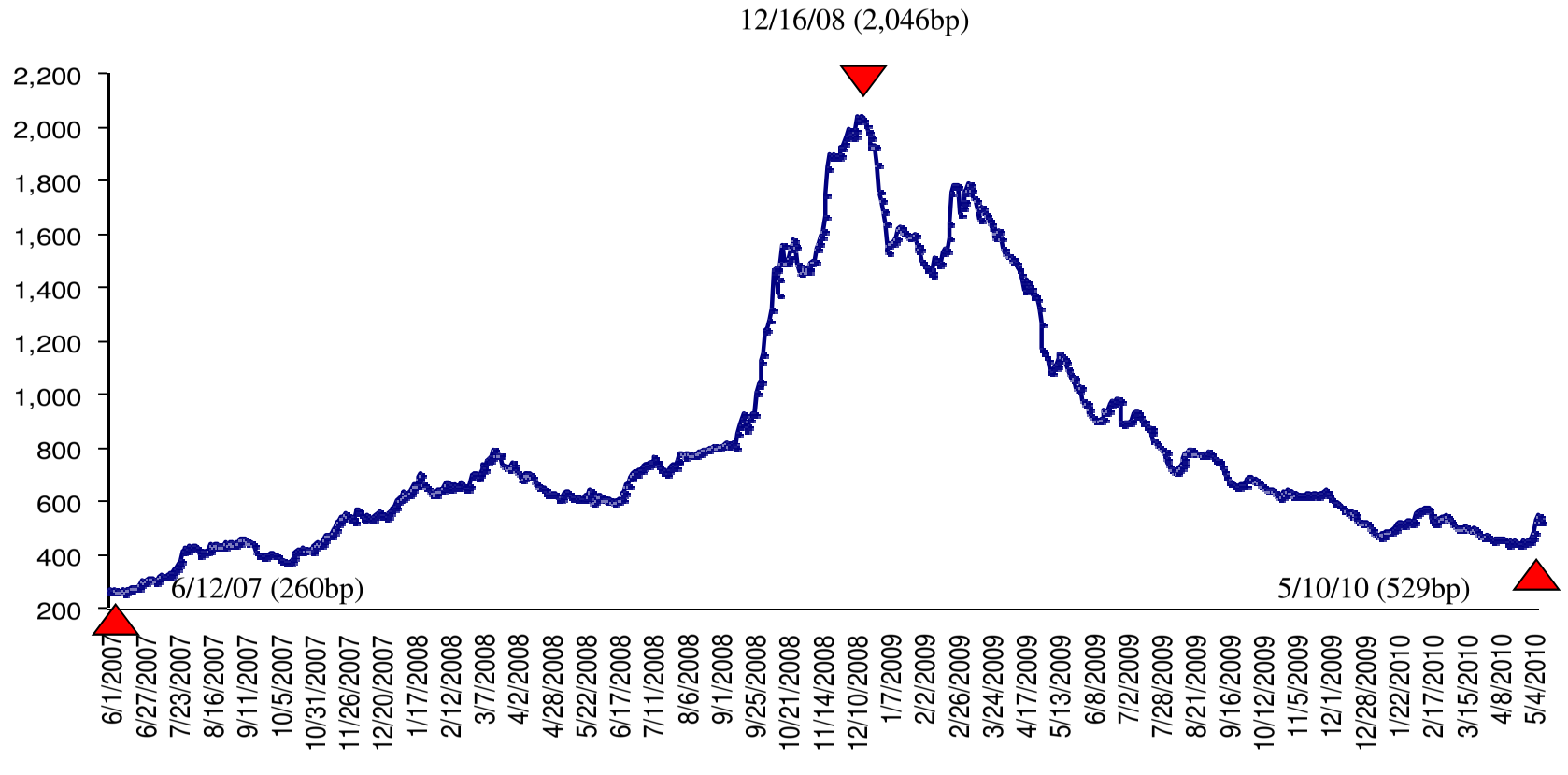
A Tale of Three Periods

Dr. Edward Altman
NYU Stern School of Business

IRMC
Florence, Italy
June 04, 2010

YTM Spread Between High Yield Markets & 10 Year Treasury Notes

June 01, 2007 – May 10, 2010



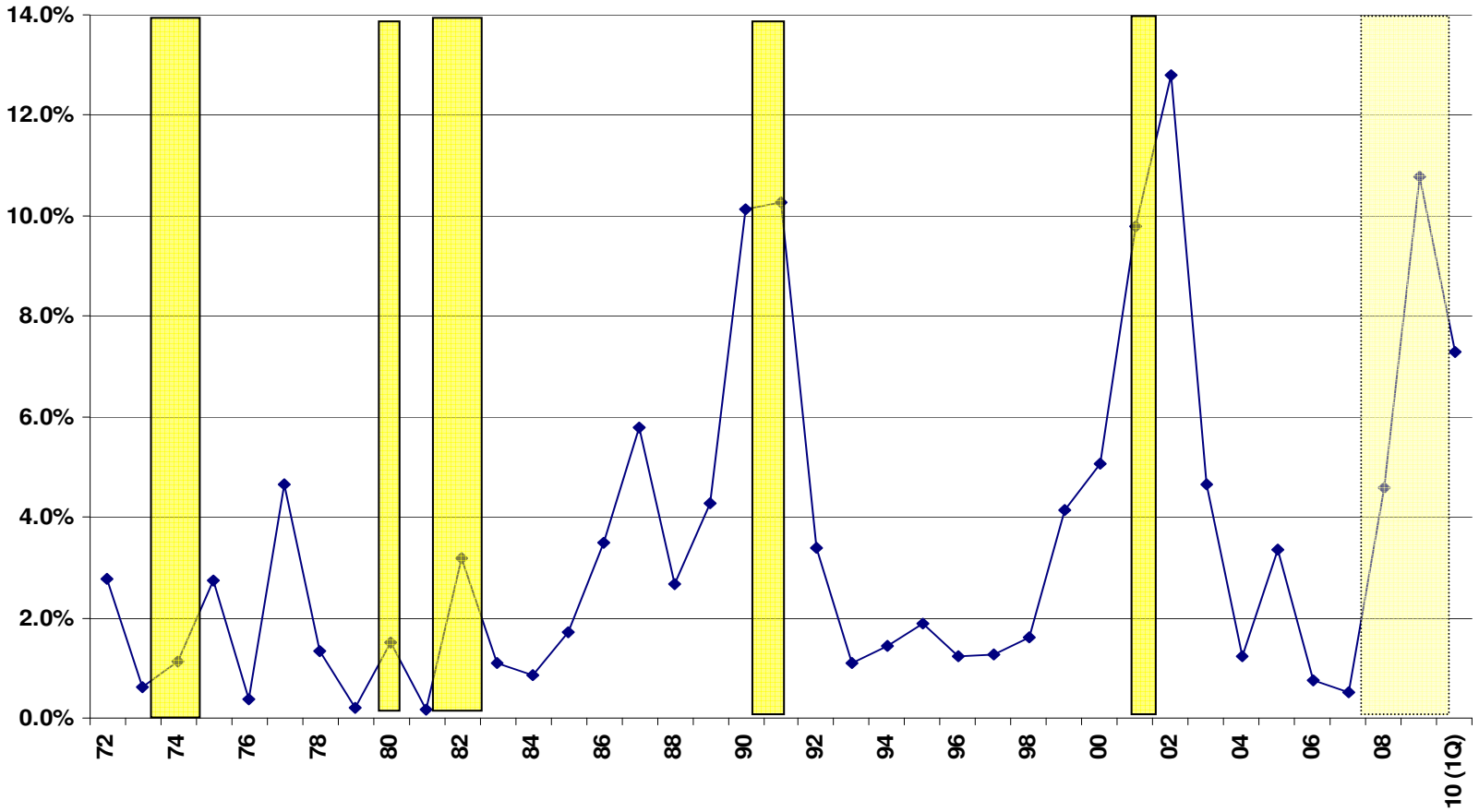
Source: Citigroup Yieldbook Index Data

Default and Recovery Forecasting Models

- Macro-Economic Models: Default Probabilities
- Mortality Rate Models: Default Probabilities
- Market Based Models: Default Probabilities
- Recovery Rate Models: Loss-Given-Default
- Distressed Debt Market Size Estimate

Historical Default Rates and Recession Periods in the U.S.

HIGH YIELD BOND MARKET (1972 – 2010 (1Q*))



Periods of Recession: 11/73 - 3/75, 1/80 - 7/80, 7/81 - 11/82, 7/90 - 3/91, 4/01 – 12/01, 12/07-present

***All rates annual except for 1Q 2010, which is the LTM default rate.**

Source: E. Altman (NYU Salomon Center) & National Bureau of Economic Research

Factors Affecting the Transformation of Credit Markets – The Seeds of the Meltdown

- Massive Global Liquidity
  - Petrodollars, Foreign Governments, Financial Institutions, Global Money Supply Expansion, etc.
- Explosion of Hedge Fund Activity
- Frenetic Activity in M&A/LBO transactions
- Growth of the Institutional Loan Market, esp. Leveraged Loans
- Easy Credit Standards by both Bank and Non-Bank Lenders
- Record Low Required Yield Spreads in a Higher Credit Risk Profile Environment until June '07
  - Second-Half 2007 Spread Volatility

Factors Affecting the Transformation of Credit Markets (continued)

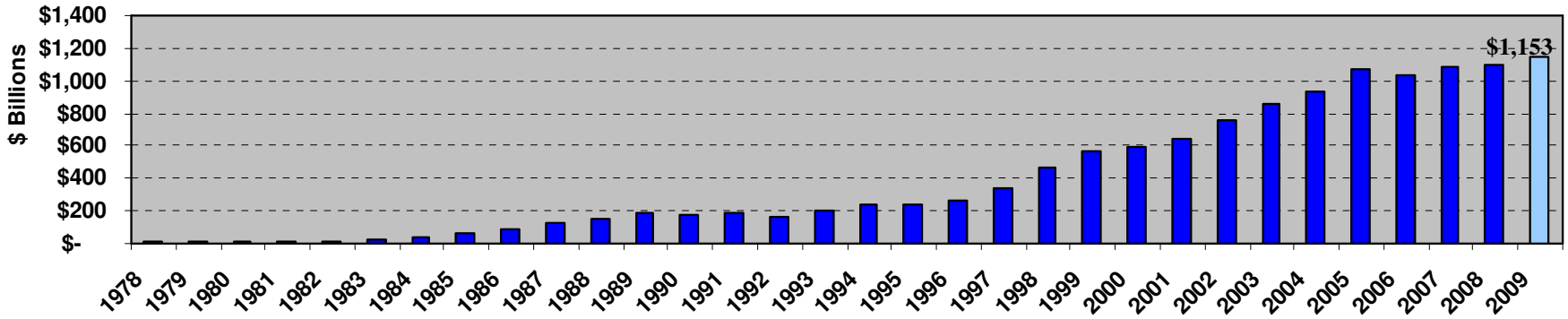
- Rapid Growth in Derivatives and Synthetics, esp. CDOs
- Rescue Financings Restructurings (Privatization of Bankruptcy)
- Distressed Debt Control Investing (Loan-to-Own)
- Historically Low Default Rates and High Recoveries
- Extremely Low Equity and Debt Volatility until Summer ‘07
- Recession Scenarios

Major Agencies Bond Rating Categories

Moody's		S&P/Fitch
Aaa		AAA
Aa1		AA+
Aa2		AA
Aa3		AA-
A1		A+
A2		A
A3		A-
Baa1		BBB+
Baa2	Investment	BBB
Baa3	Grade	BBB-
Ba1	High Yield	BB+
Ba2	("Junk")	BB
Ba3		BB-
B1		B+
B2		B
B3		B-
Caa1		CCC+
Caa		CCC
Caa3		CCC-
Ca		CC
		C
C		D

Size of the US High-Yield Bond Market

1978 – 2009 *(Mid-year US$ billions)*



Historical Default Rates

Straight Bonds Only Excluding Defaulted Issues From Par Value Outstanding, (*US$ millions)*
1971 – 2010 (4/30)

Year	Par Value Outstanding*	Par Value Defaults	Default Rates *(%)*
2010 (4/30)	**$1,1,82,995**	**$1,871**	**0.158%**
2009	$1,152,952	$124,130	10.766
2008	$1,091,000	$50,763	4.653
2007	$1,075,400	$5,473	0.509
2006	$993,600	$7,559	0.761
2005	$1,073,000	$36,181	3.372
2004	$933,100	$11,657	1.249
2003	$825,000	$38,451	4.661
2002	$757,000	$96,855	12.795
2001	$649,000	$63,609	9.801
2000	$597,200	$30,295	5.073
1999	$567,400	$23,532	4.147
1998	$465,500	$7,464	1.603
1997	$335,400	$4,200	1.252
1996	$271,000	$3,336	1.231
1995	$240,000	$4,551	1.896
1994	$235,000	$3,418	1.454
1993	$206,907	$2,287	1.105
1992	$163,000	$5,545	3.402
1991	$183,600	$18,862	10.273
1990	$181,000	$18,354	10.140
1989	$189,258	$8,110	4.285
1988	$148,187	$3,944	2.662
1987	$129,557	$7,486	5.778
1986	$90,243	$3,156	3.497
1985	$58,088	$992	1.708
1984	$40,939	$344	0.840
1983	$27,492	$301	1.095
1982	$18,109	$577	3.186
1981	$17,115	$27	0.158
1980	$14,935	$224	1.500
1979	$10,356	$20	0.193
1978	$8,946	$119	1.330
1977	$8,157	$381	4.671
1976	$7,735	$30	0.388
1975	$7,471	$204	2.731
1974	$10,894	$123	1.129
1973	$7,824	$49	0.626
1972	$6,928	$193	2.786
1971	$6,602	$82	1.242

		Standard Deviation (%)
Arithmetic Average Default Rate		
1971 to 2009	3.332%	3.226%
1978 to 2009	3.637%	3.424%
1985 to 2009	4.323%	3.550%
Weighted Average Default Rate*		
1971 to 2009	4.552%	
1978 to 2009	4.564%	
1985 to 2009	4.601%	
Median Annual Default Rate		
1971 to 2009	1.896%	

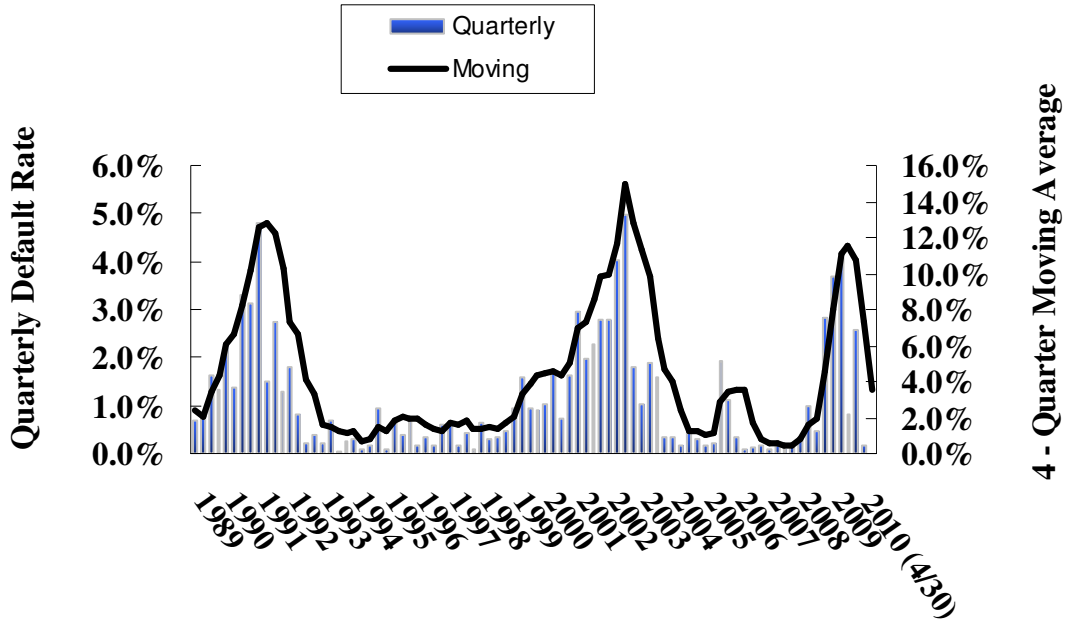
* Weighted by par value of amount outstanding for each year.

Source: Author's compilation and Citigroup estimate

Historical Default Rates

QUARTERLY DEFAULT RATE AND FOUR QUARTER MOVING AVERAGE

1989 – 2010 (4/30)



Source: Author's Compilations

High-Yield Bond Distressed Exchange Default & Recovery Statistics

1984 –2010 (4/30)

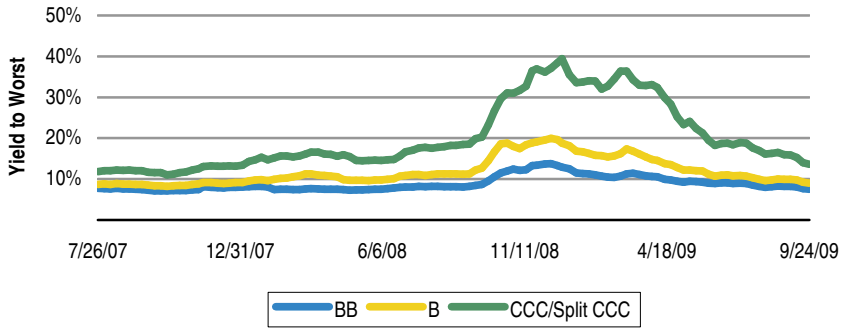
Year	Distressed Exchange Defaults ($)	Total Defaults ($)	% Distressed Exchange Defaults to Total ($)	Distressed Exchange Defaults (# Issuers)	Total Defaults (# Issuers)	% Distressed Exchange Defaults to Total (# Issuers)	Distressed Exchange Recovery Rate	All Default Recovery Rate	Difference Between Distressed Exchange & All Default Recovery Rate
2010 (4/30)	**588.48**	**1,586.34**	**37.1%**	**2**	**7**	**28.6%**	**88.25**	**55.19**	**33.06**
2009	**23,212.60**	**123,823.79**	**18.7%**	**46**	**120**	**38.3%**	**42.68**	**36.13**	**6.55**
2008	**30,329.42**	**50,763.26**	**59.7%**	**14**	**64**	**21.9%**	**52.41**	**42.50**	**9.91**
2007	146.83	5,473.00	2.7%	1	19	5.3%	85.17	66.65	18.52
2006	0.00	7,559.00	0.0%	0	0	0.0%	n/a	n/a	n/a
2005	6,861.00	36,209.00	18.9%	1	34	2.9%	78.61	62.96	15.65
2004	537.88	11,657.00	4.6%	5	39	12.8%	58.05	57.72	0.33
2003	1,080.12	38,451.00	2.8%	8	86	9.3%	78.52	45.58	32.94
2002	764.80	96,858.00	0.8%	3	112	2.7%	61.22	25.3	35.92
2001	1,267.60	63,609.00	2.0%	5	156	3.2%	33.12	25.62	7.50
2000	50.00	30,295.00	0.2%	1	107	0.9%	77.00	26.74	50.26
1999	2,118.40	23,532.00	9.0%	6	98	6.1%	65.39	27.9	37.49
1998	461.10	7,464.00	6.2%	2	37	5.4%	17.34	40.46	(23.12)
1997	0.00	4,200.00	0.0%	0	0	0.0%	n/a	n/a	n/a
1996	0.00	3,336.00	0.0%	0	0	0.0%	n/a	n/a	n/a
1995	0.00	4,551.00	0.0%	0	0	0.0%	n/a	n/a	n/a
1994	0.00	3,418.00	0.0%	0	0	0.0%	n/a	n/a	n/a
1993	0.00	2,287.00	0.0%	0	0	0.0%	n/a	n/a	n/a
1992	0.00	5,545.00	0.0%	0	0	0.0%	n/a	n/a	n/a
1991	76.00	18,862.00	0.4%	1	62	1.6%	31.30	40.67	(9.37)
1990	1,044.00	18,354.00	5.7%	7	47	14.9%	43.15	24.66	18.49
1989	548.90	8,110.00	6.8%	6	26	23.1%	44.53	35.97	8.56
1988	390.30	3,944.00	9.9%	3	24	12.5%	28.40	43.45	(15.05)
1987	33.60	7,486.00	0.4%	2	15	13.3%	40.70	66.63	(25.93)
1986	114.80	3,156.00	3.6%	3	23	13.0%	47.68	36.6	11.08
1985	323.30	992.00	32.6%	2	19	10.5%	55.04	41.78	13.26
1984	100.10	344.00	29.1%	1	12	8.3%	44.12	50.62	(6.50)
Totals/Averages	**70,049.22**	**581,865.39**	**12.0%**	**119**	**1107**	**10.7%**	**53.63**	**42.66**	**10.98**

Note: Distressed Exchange Recovery Rate thus far in 2010 is based upon only 1 recovery rate.

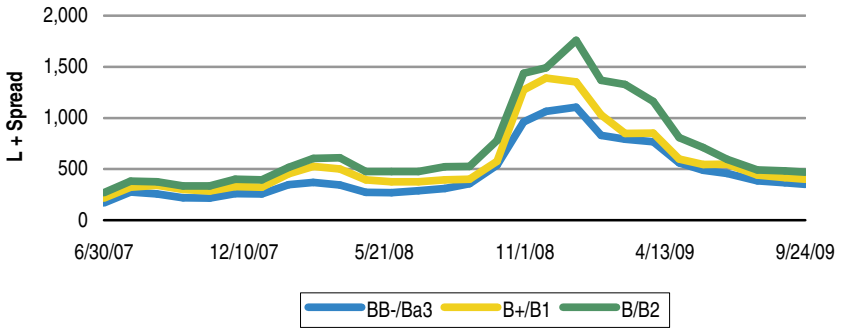
Source: Authors' Compilations

Current High-Yield & Leveraged Loan Environment

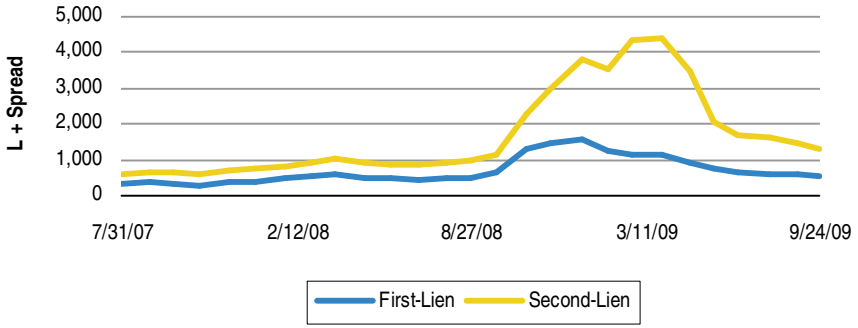
Yield to Worst by Credit Rating[1]



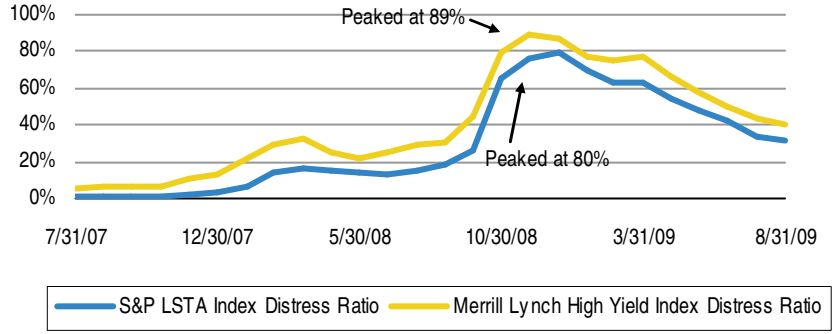
Average Leveraged Loan Spread to Maturity by Credit Rating[2][3]



Average Leveraged Loan 1st Lien vs. 2nd Lien Spread to Maturity[2][3]

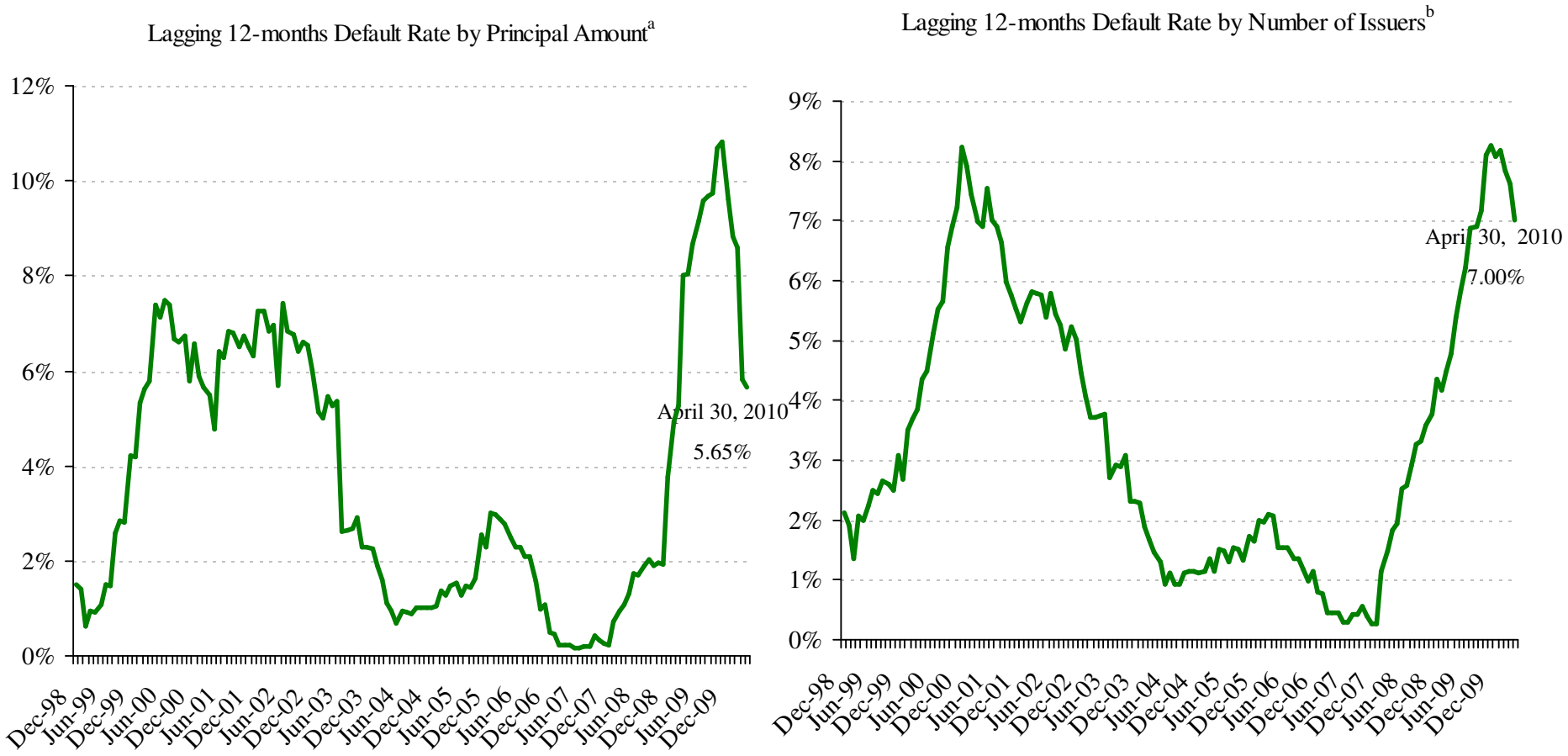


S&P LSTA and Merrill Lynch Distress Ratios[2][4]



(1) Source: CSFB High Yield Index as of 9/24/09.
(2) Source: S&P LCD & S&P/LSTA Leveraged Loan Index.
(3) Reflects the 15 largest index names in each rating category.
(4) The S&P Distress Ratio is the percent of performing loans trading below 80. The Merrill Lynch Distress Ratio is the percent of performing high-yield bonds out-yielding Treasuries by 1,000 bps or more.

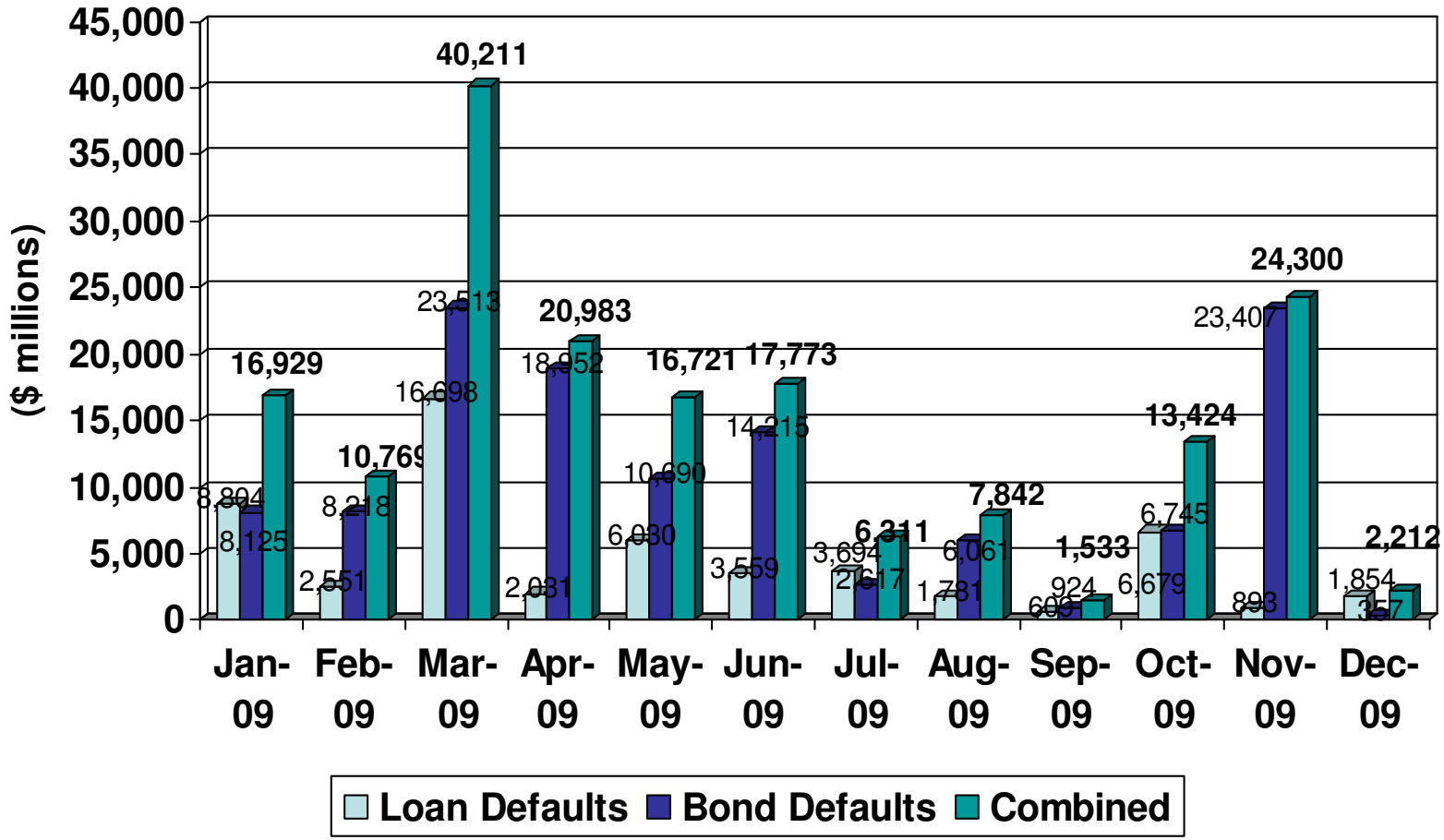
Lagging Twelve-Month Leveraged Loan Default Rate by Principal Amount & Number of Issuers



[a]**Default rate** is calculated as the amount defaulted over the last twelve months divided by the amount outstanding at the beginning of the twelve-month period. [b]**Default rate** is calculated as the number of defaults over the last twelve months divided by the number of issuers in the Index at the beginning of the twelve-month period.

Source: S&P LCD

2009 High-Yield and Institutional Leveraged Loan Defaults



Sources: S&P LCD and E. Altman, NYU Salomon Center.

Largest High-Yield and Institutional Leveraged Loan Defaults*

2009 – 2010 (4/30)

Issuer	Date	Bond Defaults ($ million)	Loan Defaults ($ million)	Combined Defaults ($ million)
CIT Group, Inc.	11/01/2009	21,933	15,225	37,158
Charter Communications Holdings, LLC	03/27/2009	12,811	7,281	20,092
Capmark Financial Group, Inc.	10/25/2009	n/a	13,833	13,833
General Motors Corp.	06/01/2009	10,459	1,466	11,925
Lyondell Basell	01/06/2009	1,631	7,493	9,124
Idearc, Inc.	03/31/2009	2,850	6,170	9,020
R.H. Donnelley Corp.	05/28/2009	6,081	2,685	8,766
Harrah's Operating Co., Inc.	04/01/2009	5,551	n/a	5,551
Abitibi Bowater, Inc.	04/16/2009	5,263	n/a	5,263
Ford Motor Co.	04/03/2009	3,354	n/a	3,354
Freescale Semiconductor, Inc.	03/10/2009	3,041	n/a	3,041
Nortel Networks Ltd.	01/14/2009	3,025	n/a	3,025
Smurfit-Stone Container Corp.	01/26/2009	2,275	517	2,792
Visteon Corp.	05/27/2009	862	1,500	2,362

*Includes only those defaults where a company's combined bond and loan defaults totaled more than $1.0 billion in a given month.

Largest High-Yield and Institutional Leveraged Loan Defaults* (continued)

2009 – 2010 (4/30)

Issuer	Date	Bond Defaults ($ million)	Loan Defaults ($ million)	Combined Defaults ($ million)
Station Casinos, Inc.	02/01/2009	2,300	n/a	2,300
Rouse Co.	04/16/2009	2,250	n/a	2,250
Spectrum Brands, Inc.	02/03/2009	1,033	1,024	2,057
General Growth Properties	03/16/2009	n/a	1,988	1,988
Aleris International, Inc.	02/12/2009	1,102	809	1,911
Masonite Corp.	03/16/2009	770	1,129	1,899
Reader's Digest Association, Inc.	08/24/2009	600	1,183	1,783
E Trade Financial Corp.	08/19/2009	1,740	n/a	1,740
Six Flags, Inc.	06/01/2009	847	835	1,682
Thornburg Mortgage, Inc.	05/01/2009	1,571	n/a	1,571
Lear Corp.	07/07/2009	400	985	1,385
Fontainebleau Las Vegas Holdings, LLC	06/09/2009	675	700	1,375
Vitro SAB de CV	02/02/2009	1,224	n/a	1,224
New World Gaming	01/04/2010	n/a	1,096	1,096

*Includes only those defaults where a company's combined bond and loan defaults totaled more than $1.0 billion in a given month.
Sources: S&P LCD and E. Altman, NYU Salomon Center

Largest High-Yield and Institutional Leveraged Loan Defaults* (continued)

2009 – 2010 (4/30)

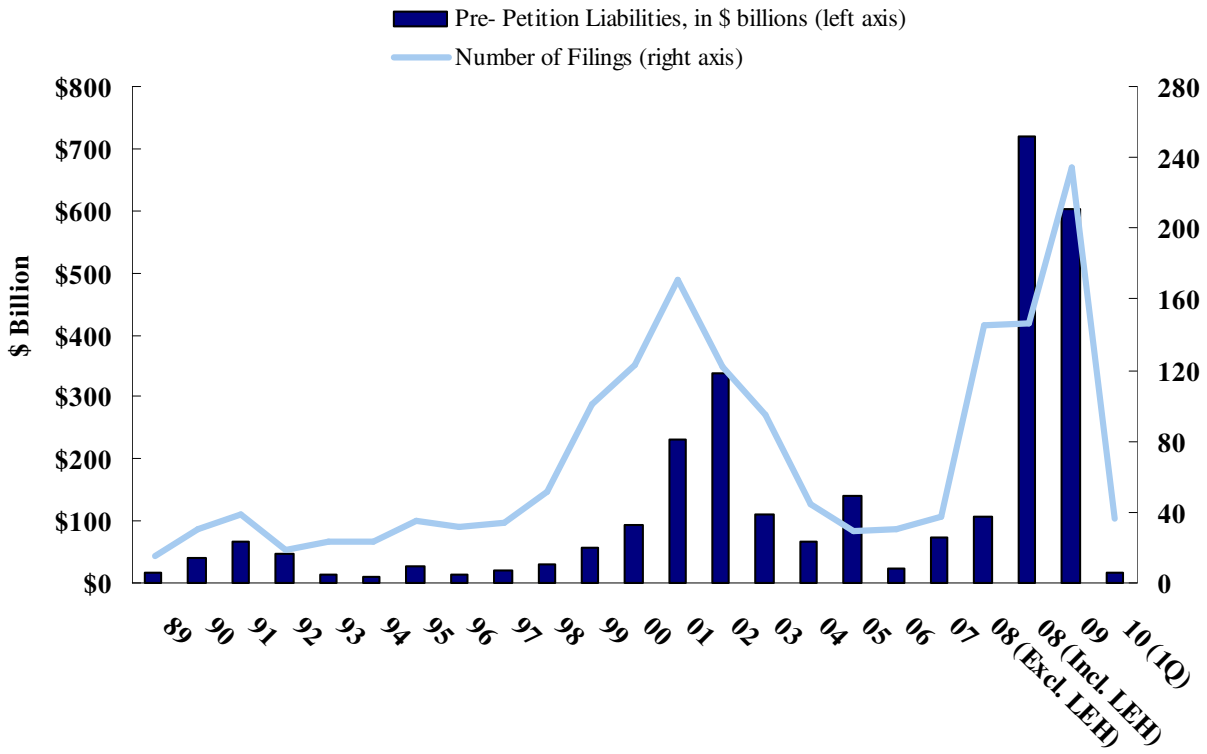
Issuer	Date	Bond Defaults ($ million)	Loan Defaults ($ million)	Combined Defaults ($ million)
Chemtura Corp.	03/18/2009	1,020	n/a	1,020

*Includes only those defaults where a company's combined bond and loan defaults totaled more than $1.0 billion in a given month.
Sources: S&P LCD and E. Altman, NYU Salomon Center

Filings for Chapter 11

Number of Filings and Pre-petition Liabilities of Public Companies

1989 – 2010 (1Q)



2009

234 filings and liabilities of $604.0 billion

2010 (1Q)

36 filings and liabilities of $15.7 billion

Note: Minimum $100 million in liabilities
Source: NYU Salomon Center Bankruptcy Filings Database

Forecasting Default and Recovery Rates

Method 1: Recession Scenario Analysis

Rating Distributions Prior To Recessions

(Percent of Issuers)

	1990	2000	2008[1]	2009[1]	2010 (1Q)[1]
Ba/BB	54%	32%	43%	33%	34%
B/B	44%	54%	35%	49%	50%
Caa+Ca/C CCC/CC	2%	14%	22%	18%	16%

Subsequent Default Rates By Rating Category

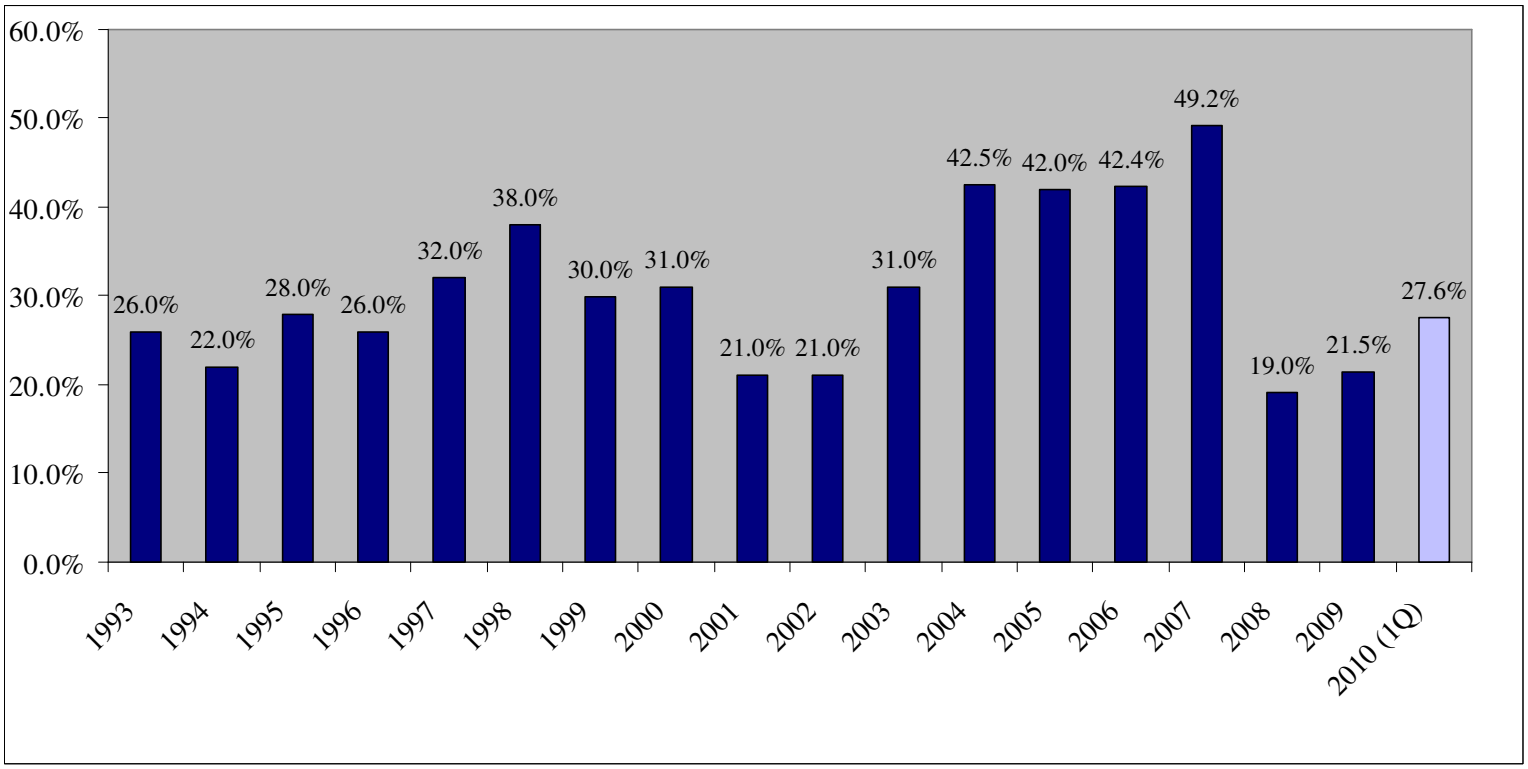
	1991	2001	2010 (Q4) Forecasts 1991/2001 Scenarios	2011 (1Q) Forecasts 1991/2001 Scenarios
Ba/BB	4%	2%	1.3% / 0.7%	1.4% / 0.7%
B/B	16%	11%	7.8% / 5.4%	8.0% / 5.5%
Caa/CCC/CC	37%	34%	6.7% / 6.1%	5.8% / 5.3%
H.Y. Default Rate	11.0%	10.6%	15.8% / 12.2%	15.2% / 11.5%

[1]Based on Moody's & S&P ratings.

Source: M. Friedson: *Distressed Debt Investor* (September 28, 2006, April 17, 2008) and author updates.

Method 2: Mortality Rate Analysis

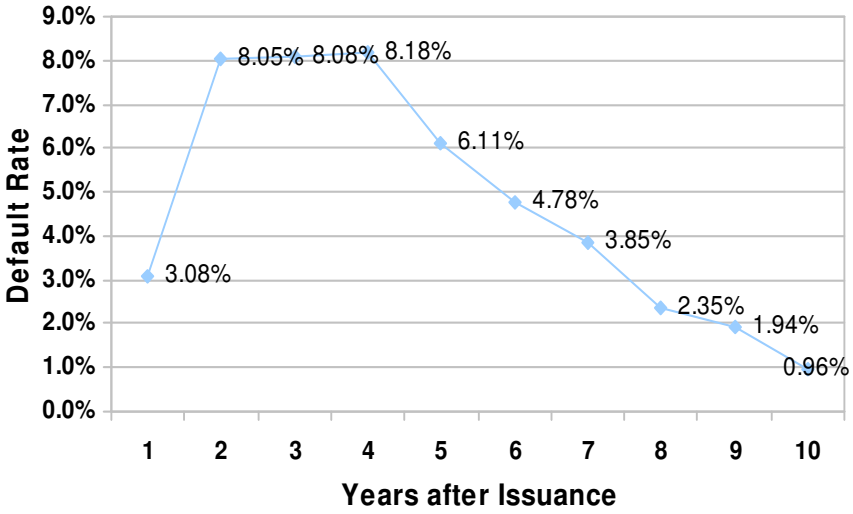
New Issues Rated B- or Below as Percentage of all New Issues (1993 – 2010 (1Q))



Source: Standard & Poor's Global Fixed Income Research

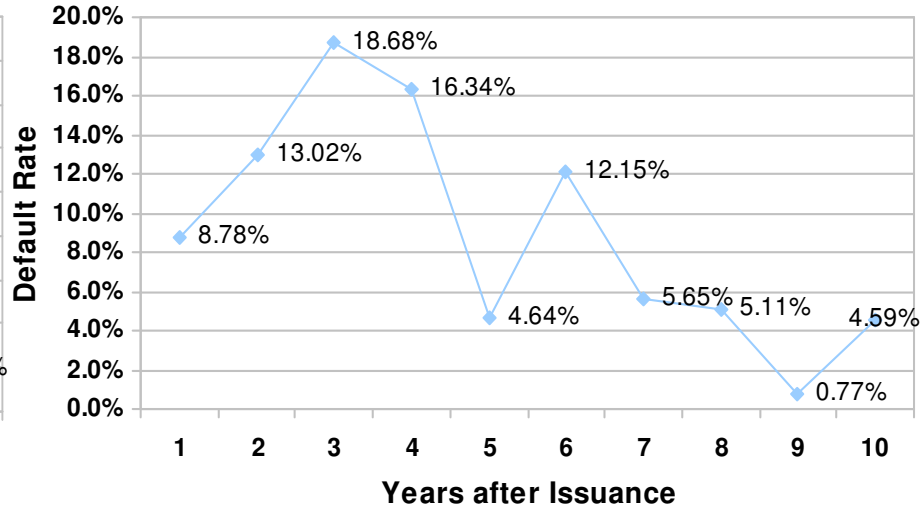
Default Lag After Issuance: 'B' & 'CCC' Rated Corporate Bonds

Default Lag after Issuance for 'B' Ratings



Source: Altman Mortality Tables (1971-2009)

Default Lag after Issuance for 'CCC' Ratings



Source: Altman Mortality Tables (1971-2009)

Forecasting Defaults and the Default Rate

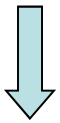
MODEL DRIVERS

- Mortality Rate Estimates: 1971 - 2009

  = f {bond rating, age, redemptions, defaults}

- Historical New Issuance over last 10 years by credit quality
  - Bond-ratings
  - Z-score Bond-equivalent ratings

- Estimate high yield market growth in 2010



New Defaults and Default Rate in 2010

Marginal and Cumulative Mortality Rate Equation

$$MMR_{(t)} = \frac{\textit{Total value of defaulting debt in year (t)}}{\textit{total value of the population at the start of the year (t)}}$$

MMR = Marginal Mortality Rate

One can measure the cumulative mortality rate (CMR) over a specific time period (1,2,…, T years) by subtracting the product of the surviving populations of each of the previous years from one (1.0), that is,

$$CMR_{(t)} = 1 - \prod_{t=1} SR_{(t)},$$

here CMR $_{(t)}$ = Cumulative Mortality Rate in $_{(t)}$,
SR $_{(t)}$ = Survival Rate in $_{(t)}$, 1 - MMR $_{(t)}$

Mortality Rate Concept (Illustrative Calculation)

For BB Rated Issues

Security No.	Issued Amount	Year 1 Default	Call	SF	Year 2 Default	Call	SF
1	50	--	--	5	--	--	5
2	50	50	--	--	NE	NE	NE
3	100	--	100	--	NE	NE	NE
4	100	--	--	--	100	--	--
5	150	--	--	--	--	--	15
6	150	--	--	--	--	--	--
7	200	--	--	20	--	--	20
8	200	--	--	--	--	200	--
9	250	--	--	--	--	--	--
10	250	--	--	--	--	--	--
Total	1,500	50	100	25	100	200	40

Amount Start of Period									
	1,500	-	175	-	1,325	-	340	=	985

	Year 1	Year 2
Marginal Mortality Rate	50/1,500 = 3.3%	100/1,325 = 7.5%
Cumulative Rate	3.3%	1 - (SR1 x SR2) = CMR2 1 - (96.7% x 92.5%) = 10.55%

NE = No longer in existence
SF = Sinking fund

Mortality Rates by Original Rating

All Rated Corporate Bonds*
1971-2009

		1	2	3	4	5	6	7	8	9	10
AAA	Marginal	0.00%	0.00%	0.00%	0.00%	0.03%	0.02%	0.01%	0.00%	0.00%	0.00%
	Cumulative	0.00%	0.00%	0.00%	0.00%	0.03%	0.05%	0.06%	0.06%	0.06%	0.06%
AA	Marginal	0.00%	0.00%	0.27%	0.12%	0.02%	0.01%	0.00%	0.01%	0.03%	0.01%
	Cumulative	0.00%	0.00%	0.27%	0.39%	0.41%	0.42%	0.42%	0.43%	0.46%	0.47%
A	Marginal	0.01%	0.08%	0.18%	0.19%	0.15%	0.12%	0.05%	0.22%	0.12%	0.08%
	Cumulative	0.01%	0.09%	0.27%	0.46%	0.61%	0.73%	0.78%	1.00%	1.11%	1.19%
BBB	Marginal	0.42%	2.86%	1.48%	1.12%	0.68%	0.30%	0.36%	0.19%	0.18%	0.38%
	Cumulative	0.42%	3.27%	4.70%	5.77%	6.41%	6.69%	7.02%	7.20%	7.37%	7.72%
BB	Marginal	1.09%	2.23%	4.11%	2.18%	2.58%	1.50%	1.57%	1.20%	1.63%	3.30%
	Cumulative	1.09%	3.30%	7.27%	9.29%	11.63%	12.96%	14.32%	15.35%	16.73%	19.48%
B	Marginal	3.08%	8.05%	8.08%	8.18%	6.11%	4.78%	3.85%	2.35%	1.94%	0.96%
	Cumulative	3.08%	10.88%	18.08%	24.78%	29.38%	32.76%	35.34%	36.86%	38.09%	38.68%
CCC	Marginal	8.78%	13.02%	18.68%	16.34%	4.64%	12.15%	5.65%	5.11%	0.77%	4.59%
	Cumulative	8.78%	20.66%	35.48%	46.02%	48.53%	54.78%	57.33%	59.51%	59.83%	61.67%

*Rated by S&P at Issuance
Based on 2,527 issues
Source: Standard & Poor's (New York) and Author's Compilation

Mortality Losses by Original Rating

All Rated Corporate Bonds*
1971-2009

		1	2	3	4	5	6	7	8	9	10
AAA	Marginal	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%
	Cumulative	0.00%	0.00%	0.00%	0.00%	0.01%	0.02%	0.03%	0.03%	0.03%	0.03%
AA	Marginal	0.00%	0.00%	0.04%	0.04%	0.01%	0.01%	0.00%	0.01%	0.01%	0.01%
	Cumulative	0.00%	0.00%	0.04%	0.08%	0.09%	0.10%	0.10%	0.11%	0.12%	0.13%
A	Marginal	0.00%	0.03%	0.09%	0.15%	0.09%	0.05%	0.03%	0.05%	0.08%	0.03%
	Cumulative	0.00%	0.03%	0.12%	0.27%	0.36%	0.41%	0.44%	0.49%	0.57%	0.60%
BBB	Marginal	0.33%	1.92%	1.26%	0.45%	0.44%	0.20%	0.15%	0.11%	0.11%	0.22%
	Cumulative	0.33%	2.24%	3.48%	3.91%	4.33%	4.52%	4.67%	4.77%	4.88%	5.09%
BB	Marginal	0.63%	1.29%	2.43%	1.27%	1.54%	0.79%	0.86%	0.52%	0.84%	1.18%
	Cumulative	0.63%	1.91%	4.30%	5.51%	6.97%	7.70%	8.49%	8.97%	9.74%	10.80%
B	Marginal	2.06%	5.63%	5.48%	5.46%	4.03%	2.63%	2.50%	1.32%	1.00%	0.69%
	Cumulative	2.06%	7.57%	12.64%	17.41%	20.74%	22.82%	24.75%	25.74%	26.49%	26.99%
CCC	Marginal	5.78%	9.34%	13.28%	11.95%	3.28%	9.15%	4.26%	3.96%	0.47%	2.94%
	Cumulative	5.78%	14.58%	25.92%	34.78%	36.92%	42.69%	45.13%	47.30%	47.55%	49.09%

*Rated by S&P at Issuance
Based on 2,099 issues
Source: Standard & Poor's (New York) and Author's Compilation

Mortality Rate Based Method Forecasts of Default and Recovery Rates in the High-Yield Bond Market

2007 - 2010

Year	Default Rate	Default Amount ($ billion)	Recovery Rate*
2008 (Forecast)	4.64%	$53.1	39.6%
2008 (Actual)	4.60%	$50.2	42.5%
2009 (Forecast)	7.98%	$92.0	30.0%
2009 (Actual)	10.74%	$123.8	36.1%
2010 (Forecast)	5.06%	$62.5	34.9%

*Based on the log-linear default rate/recovery rate regression.

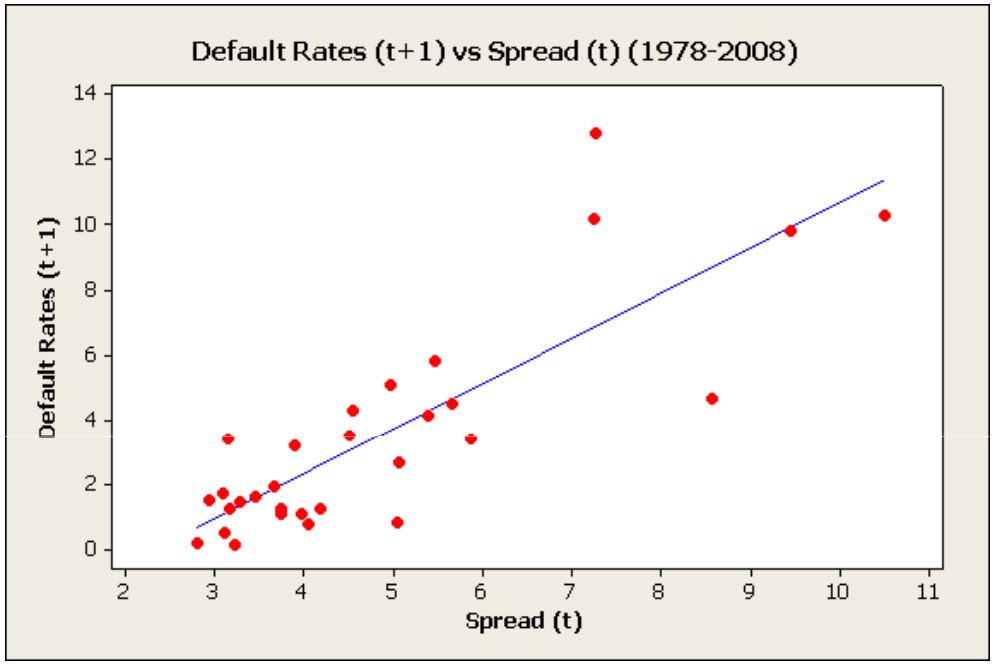
Source: Mortality Rates (Slide 25), All Corporate Bond Issuance and Authors' Estimates of Market Size in 2010.

Methods 3 & 4:

Market Based Measures

Dollar Denominated (Altman) Default Rate Predictions

Case 1: Default Rate[t+1] Versus Yield Spread[t]



The regression equation is

Default Rate = - 3.25 + 1.39 * Spread

Predictor	Coef	SE Coef	T	P
Constant	-3.2490	0.9072	-3.58	0.001
Spread	1.3904	0.1741	7.99	0.000

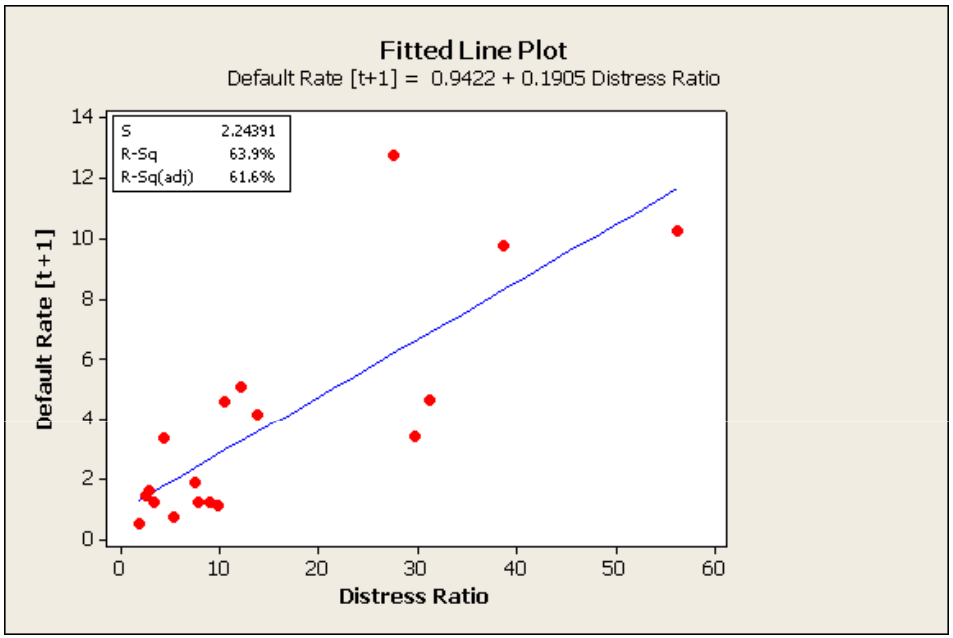
S = 1.86079 R-Sq = 69.5% R-Sq(adj) = 68.4%

Application

Applying Yield spread (12/31/2008) of 1,731 bps, P_D = -3.25 + 1.39*17.31 = **20.811%**
Applying Yield spread (12/31/2009) of 513 bps, P_D = -3.25 + 1.39*5.13 = **3.883%**
Applying Yield spread (3/31/2010) of 476 bps, P_D = -3.25 + 1.39*4.76 = **3.373%**

Dollar Denominated (Altman) Default Rate Predictions

Case 2: Default Rate[t+1] Versus Distress Ratio[t]



The regression equation is

Default Rate = 0.942 + 0.190 * Distress Ratio

Predictor	Coef	SE Coef	T	P
Constant	0.9422	0.7596	1.24	0.233
Distress Ratio	0.19045	0.03579	5.32	0.000

S = 2.24391 R-Sq = 63.9% R-Sq(adj) = 61.6%

Application

Applying Distress Ratio (12/31/2008) of 82.00%, P_D = 0.810 + 0.193*82.00 = **16.636%**
Applying Distress Ratio (12/31/2009) of 15.30%, P_D = 0.942 + 0.190 *15.30 = **3.856%**
Applying Distress Ratio (3/31/2010) of 10.30%, P_D = 0.942 + 0.190 *10.30 = **2.904%**

Dollar Denominated (Altman) Default Rate Predictions

Case 3: Default Rate[t+1] Versus Yield Spread[t] and Distress Ratio[t]

The regression equation is

Default Rate = - 3.17 + 1.39 * Spread - 0.013 * Distress Ratio

Predictor	Coef	SE Coef	T	P
Constant	-3.171	2.450	-1.29	0.215
Spread [t]	1.3928	0.7937	1.75	0.100
Distress Ratio [t]	-0.0129	0.1207	-0.11	0.917

S = 2.11094 R-Sq = 70.0% R-Sq(adj) = 66.1%

Correlation Between Yield Spread and Distress Ratio:

R-Sq = 93.8%

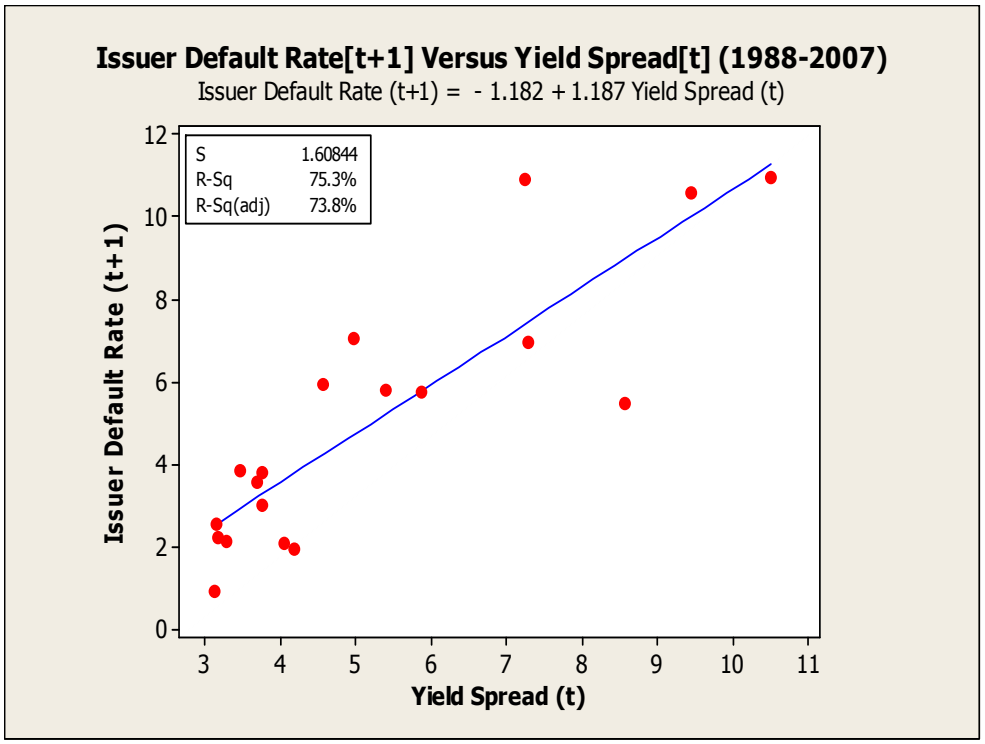
Correlation = 96.0%

Application

Applying Yield Spread and Distress Ratio (12/31/2008) of 1,731 bps and 80.00%, P_D = -3.16 + 1.39*17.31 – 0.012*80.00 = **19.941%**
Applying Yield Spread and Distress Ratio (12/31/2009) of 513 bps and 15.30%, P_D = -3.17 + 1.39*5.13 – 0.013*15.30 = **3.777%**
Applying Yield Spread and Distress Ratio (3/31/2010) of 476 bps and 10.30%, P_D = -3.17 + 1.39*4.76 – 0.013*10.30 = **3.329%**

Issuer Denominated (Moody's) Default Rate Predictions

Case 1: Issuer Default Rate[t+1] Versus Yield Spread[t]



The regression equation is

Issuer Default Rate (t+1) = - 1.18 + 1.19* Yield Spread (t)

Predictor	Coef	SE Coef	T	P
Constant	-1.1816	0.9373	-1.26	0.224
Yield Spread (t)	1.1866	0.1649	7.20	0.000

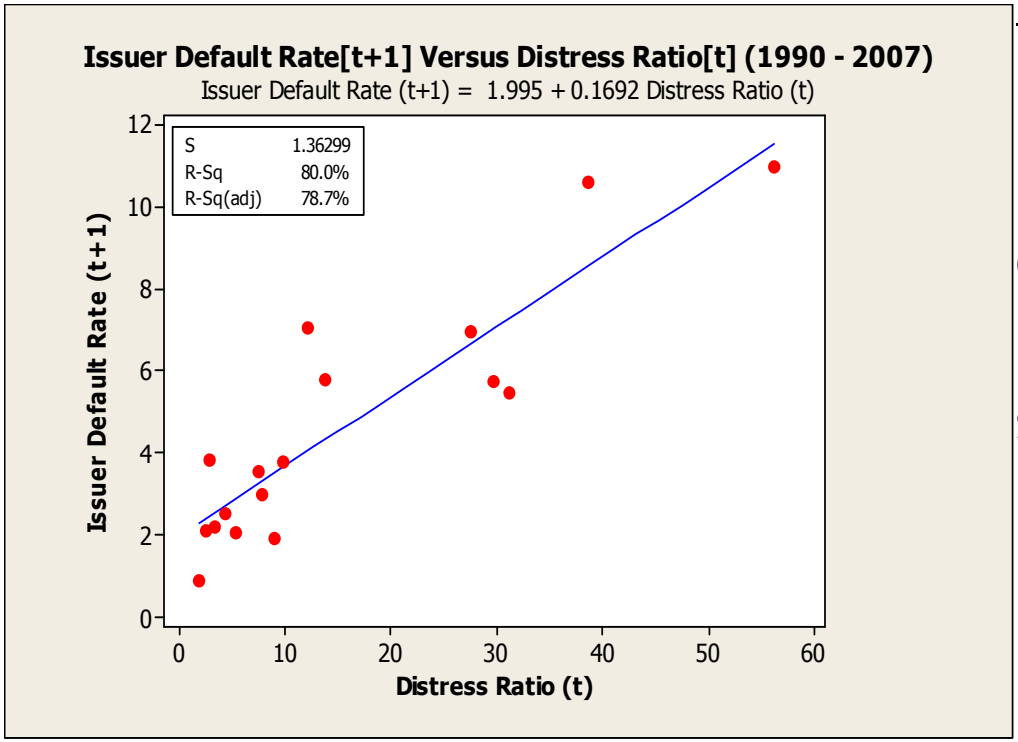
S = 1.60844 R-Sq = 75.3% R-Sq(adj) = 73.8%

Application

Applying Yield spread (12/31/2008) of 1,731 bps, P_D = - 1.18 + 1.19*17.31 = **19.419%**
Applying Yield spread (12/31/2009) of 513 bps, P_D = - 1.18 + 1.19*5.13 = **4.906**%
Applying Yield spread (3/31/2010) of 476 bps, P_D = - 1.18 + 1.19*4.76 = **4.469**%

Issuer Denominated (Moody's) Default Rate Predictions

Case 2: Issuer Default Rate[t+1] Versus Distress Ratio[t]



The regression equation is

Issuer Default Rate (t+1) = 1.99 + 0.169* Distress Ratio (t)

Predictor	Coef	SE Coef	T	P
Constant	1.9949	0.4731	4.22	0.001
Distress Ratio (t)	0.16917	0.02181	7.76	0.000

S = 1.36299 R-Sq = 80.0% R-Sq(adj) = 78.7%

Application

Applying Distress Ratio (12/31/2008) of 80.00%, P_D = 1.99 + 0.169*80.00 = **15.510%**
Applying Distress Ratio (12/31/2009) of 15.30%, P_D = 1.99 + 0.169*15.30 = **4.583%**
Applying Distress Ratio (3/31/2010) of 10.30%, P_D = 1.99 + 0.169*10.30 = **3.737%**

Issuer Denominated (Moody's) Default Rate Predictions

Case 3: Issuer Default Rate[t+1] Versus Yield Spread[t] and Distress Ratio[t]

The regression equation is

Issuer Default Rate (t+1) = 0.11 + 0.660 Yield Spread (t) + 0.0718 Distress Ratio (t)

Predictor	Coef	SE Coef	T	P
Constant	0.108	1.698	0.06	0.950
Yield Spread (t)	0.6600	0.5708	1.16	0.267
Distress Ratio (t)	0.07181	0.08692	0.83	0.423

S = 1.34794 R-Sq = 81.8% R-Sq(adj) = 79.2%

Application

Applying Yield Spread and Distress Ratio (12/31/2008) of 1,731 bps and 80.00%, P_D = 0.11 + 0.66*17.31 + 0.0718*80.00 = **17.279%**
Applying Yield Spread and Distress Ratio (12/31/2009) of 513 bps and 15.30%, P_D = 0.11 + 0.66*5.13 + 0.0718*15.30 = **4.592%**
Applying Yield Spread and Distress Ratio (3/31/2010) of 476 bps and 10.30%, P_D = 0.11 + 0.66*4.76 + 0.0718*10.30 = **3.991%**

Default and Recovery Forecasts: Summary of Forecast Models

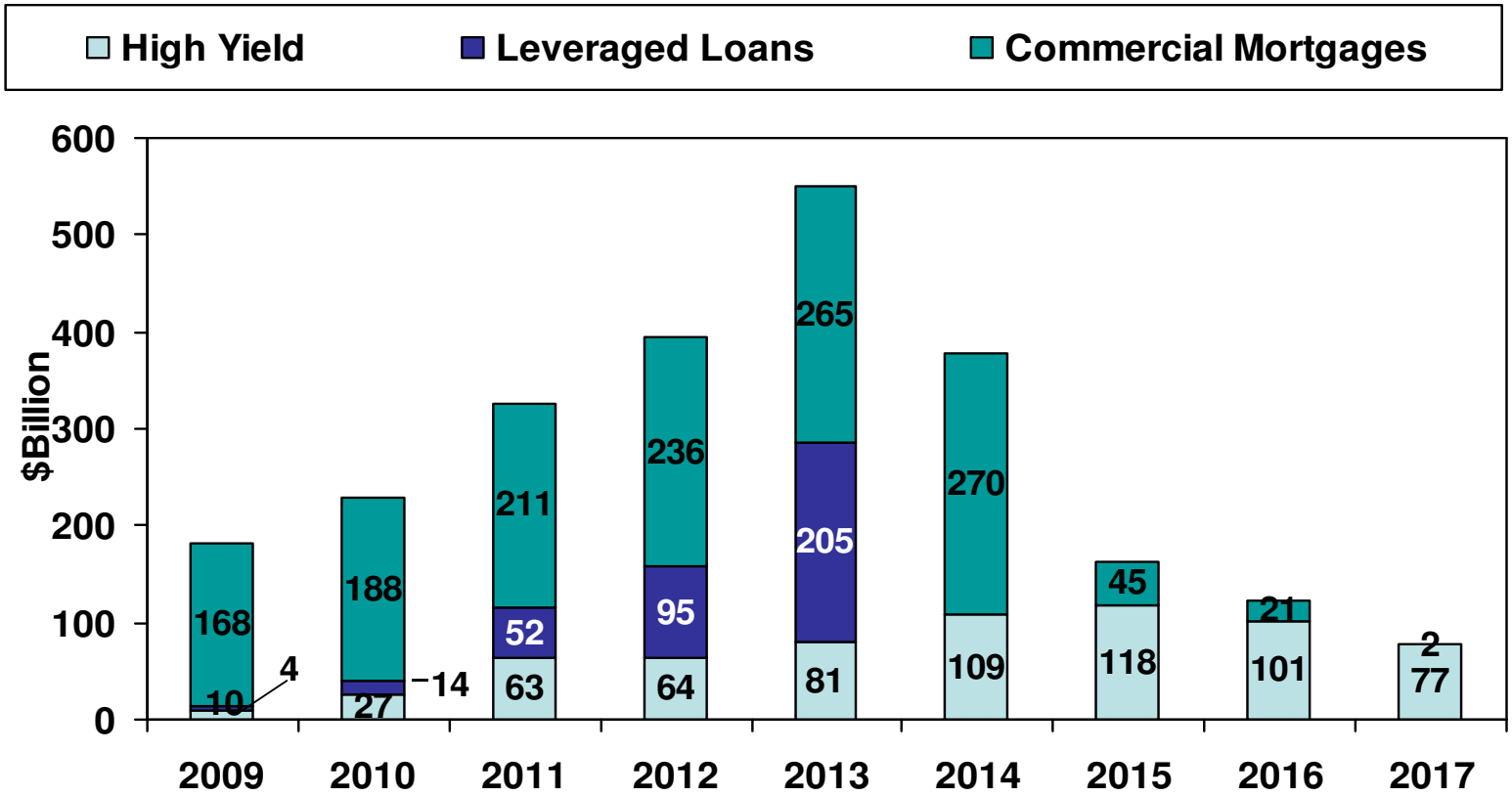
Model	12/31/2010 Recession Default Rate Forecast as of 12/31/2009	12/31/2010 No Recession Default Rate Forecast as of 12/31/2009	3/31/2011 Recession Default Rate Forecast as of 3/31/2010	3/31/2011 No Recession Default Rate Forecast as of 3/31/2010
Mortality Rate	5.06%	5.06%	5.06%	5.06%
Recession Scenarios	14.00%	n/r	13.35%	n/r
Yield-Spread	3.89%[a]	3.89%[a]	3.37%[c]	3.37%[c]
Distress Ratio	3.86%[b]	3.86%[b]	2.90%[d]	2.90%[d]
Average of Models (Recovery Rates)*	6.70% (31.8%)	4.27% (36.7%)	6.17% (32.7%)	3.78% (38.0%)

* Recovery rate based on the log Linear equation between default and recovery rates, see Altman, et al (2005) Journal of Business, November and Slide 44. [a] Based on Dec. 31, 2009 yield-spread of 513.16bp.[b] Based on Dec. 31, 2009 Distress Ratio of 15.3%. [c] Based on Mar. 31, 2010 yield-spread of 476.25bp. [d] Based on Mar. 31, 2010 Distress Ratio of 10.3%.

Source: All Corporate Bond Issuance and Authors' Estimates of Market Size in 2010.

Upcoming Debt Maturities

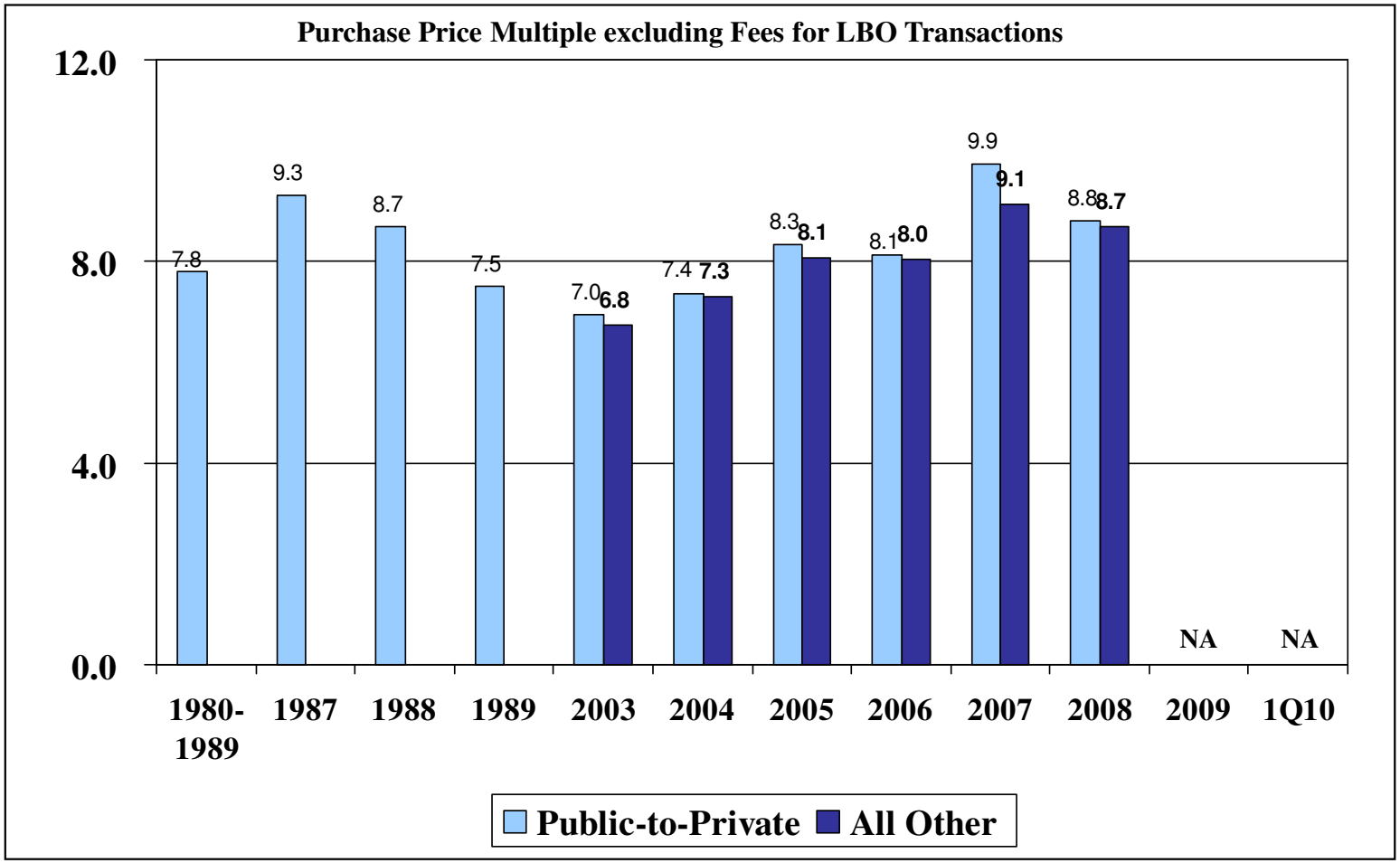
High-Yield Bond, Leveraged Loan and Commercial Mortgage Maturities *($ in billions)*



Source: J.P. Morgan; S&P LCD.

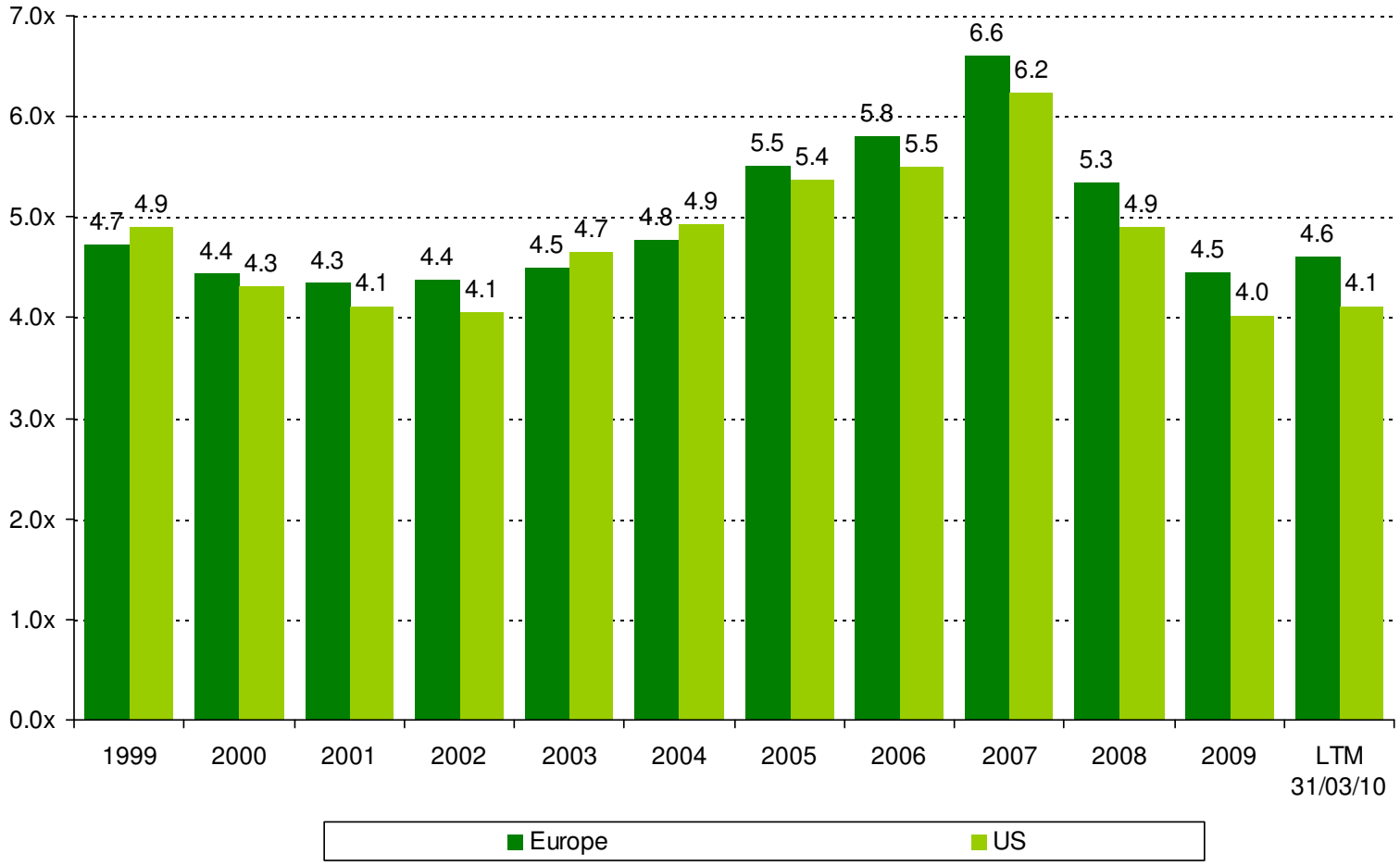
A Credit Default Analysis of LBOs

Purchase Price Multiples



Source: Standard and Poor's LCD

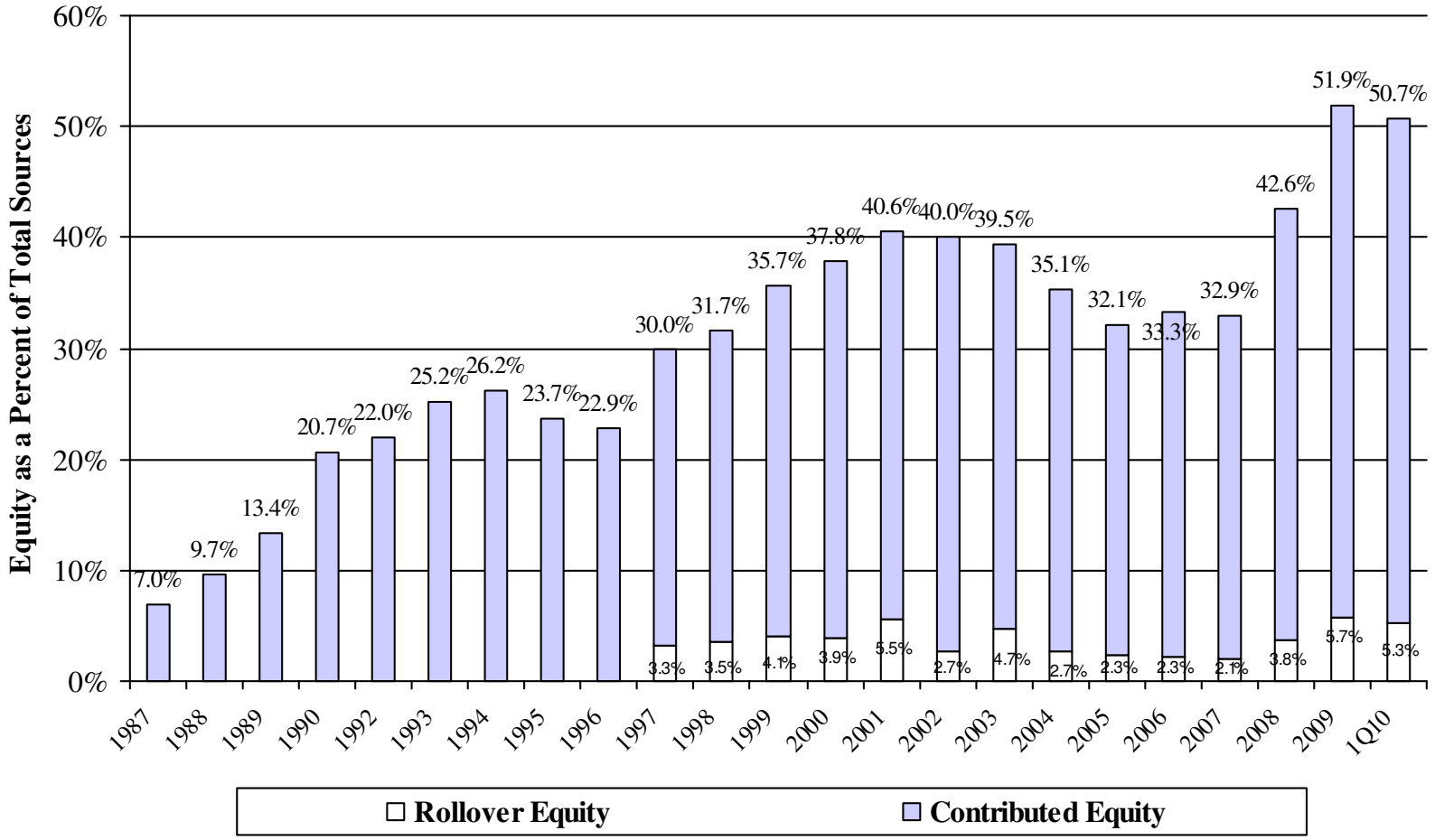
Average Total Debt Leverage Ratio for LBO's: Europe and US with EBITDA of €/$50M or More



Source: Standard & Poor's LCD

Average Equity Contribution to Leveraged Buyouts

1987 – 1Q10



Equity includes common equity and preferred stock as well as holding company debt and seller note proceeds downstreamed to the operating company as common equity; Rollover Equity prior to 1996 is not available; There were too few deals in 1991 to form a meaningful sample.

Source: Standard & Poor's LCD

New Research: Mortality Rate Analysis for LBOs

2000 - 2009

Recovery Rate Analysis

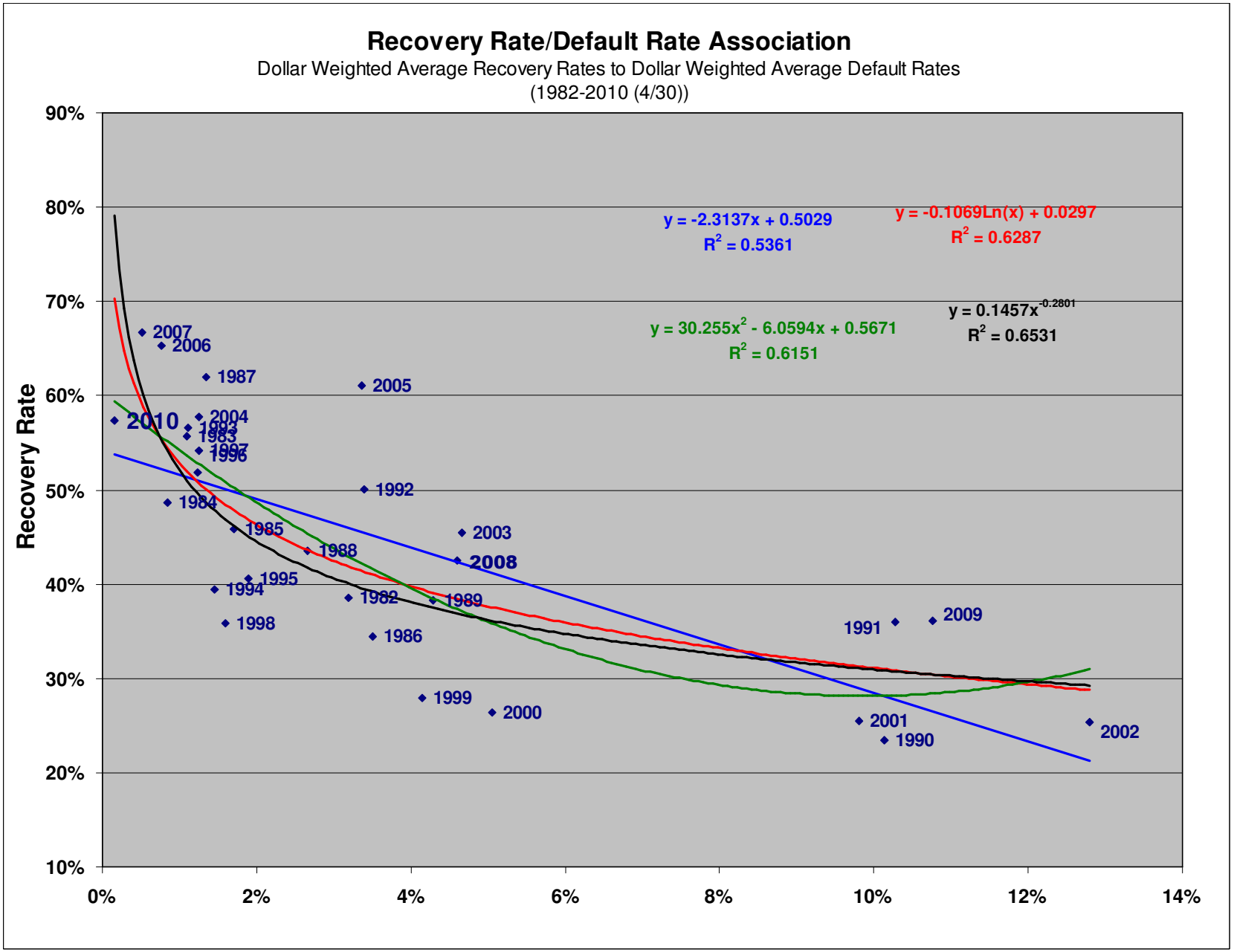
Default Rates and Losses[a]

1978 – 2010 (4/30)

Year	Par Value Outstanding[a] ($MM)	Par Value Of Default ($MMs)	Default Rate (%)	Weighted Price After Default	Weighted Coupon (%)	Default Loss (%)
2010 (4/30)	**$1,182,995**	**$1,871**	**0.16**	**57.3**	**8.88**	**0.08**
2009	$1,152,952	$124,130	10.77	$36.1	8.16	7.30
2008	$1,091,000	$50,763	4.65	$42.5	8.23	2.83
2007	$1,075,400	$5,473	0.51	$66.6	9.64	0.19
2006	$993,600	$7,559	0.76	$65.3	9.33	0.30
2005	$1,073,000	$36,181	3.37	$61.1	8.61	1.46
2004	$933,100	$11,657	1.25	$57.7	10.30	0.61
2003	$825,000	$ 38,451	4.66	$45.5	9.55	2.76
2002	$757,000	$96,858	12.79	$25.3	9.37	10.15
2001	$649,000	$63,609	9.80	$25.5	9.18	7.76
2000	$597,200	$30,248	5.06	$26.4	8.54	3.94
1999	$567,400	$23,532	4.15	$27.9	10.55	3.21
1998	$465,500	$7,464	1.60	$35.9	9.46	1.10
1997	$335,400	$4,200	1.25	$54.2	11.87	0.65
1996	$271,000	$3,336	1.23	$51.9	8.92	0.65
1995	$240,000	$4,551	1.90	$40.6	11.83	1.24
1994	$235,000	$3,418	1.45	$39.4	10.25	0.96
1993	$206,907	$2,287	1.11	$56.6	12.98	0.56
1992	$163,000	$5,545	3.40	$50.1	12.32	1.91
1991	$183,600	$18,862	10.27	$36.0	11.59	7.16
1990	$181,000	$18,354	10.14	$23.4	12.94	8.42
1989	$189,258	$8,110	4.29	$38.3	13.40	2.93
1988	$148,187	$3,944	2.66	$43.6	11.91	1.66
1987	$129,557	$7,486	5.78	$75.9	12.07	1.74
1986	$90,243	$3,156	3.50	$34.5	10.61	2.48
1985	$58,088	$992	1.71	$45.9	13.69	1.04
1984	$40,939	$344	0.84	$48.6	12.23	0.48
1983	$27,492	$301	1.09	$55.7	10.11	0.54
1982	$18,109	$577	3.19	$38.6	9.61	2.11
1981	$17,115	$27	0.16	$12.0	15.75	0.15
1980	$14,935	$224	1.50	$21.1	8.43	1.25
1979	$10,356	$20	0.19	$31.0	10.63	0.14
1978	$8,946	$119	1.33	$60.0	8.38	0.59
Arithmetic Average 1978-2009:			3.64	$44.79	10.64	2.45
Weighted Average 1978-2009:			4.56			3.09

[a] Excludes defaulted issues.

Source: Authors' compilations and various dealer price quotes.



Source: E. Altman, et. al., "The Link Between Default and Recovery Rates", NYU Salomon Center, S-03-4.

Annual Returns

Yields and Spreads on 10-Year Treasury (Treas) and High Yield (HY) Bonds

1978 – 2010 (May 10th)

Year	Return (%) HY	Return (%) Treas	Return (%) Spread	Promised Yield (%)[a] HY	Promised Yield (%)[a] Treas	Promised Yield (%)[a] Spread
2010 (5/10)	**4.35**	**3.88**	**0.47**	**8.83**	**3.54**	**5.29**
2009	55.19	(9.92)	65.11	8.97	3.84	5.14
2008	(25.91)	20.30	(46.21)	19.53	2.22	17.31
2007	1.83	9.77	(7.95)	9.69	4.03	5.66
2006	11.85	1.37	10.47	7.82	4.70	3.11
2005	2.08	2.04	0.04	8.44	4.39	4.05
2004	10.79	4.87	5.92	7..35	4.21	3.14
2003	30.62	1.25	29.37	8.00	4.26	3.74
2002	(1.53)	14.66	(16.19)	12.38	3.82	8.56
2001	5.44	4.01	1.43	12.31	5.04	7.27
2000	(5.68)	14.45	(20.13)	14.56	5.12	9.44
1999	1.73	(8.41)	10.14	11.41	6.44	4.97
1998	4.04	12.77	(8.73)	10.04	4.65	5.39
1997	14.27	11.16	3.11	9.20	5.75	3.45
1996	11.24	0.04	11.20	9.58	6.42	3.16
1995	22.40	23.58	(1.18)	9.76	5.58	4.18
1994	(2.55)	(8.29)	5.74	11.50	7.83	3.67
1993	18.33	12.08	6.25	9.08	5.80	3.28
1992	18.29	6.50	11.79	10.44	6.69	3.75
1991	43.23	17.18	26.05	12.56	6.70	5.86
1990	(8.46)	6.88	(15.34)	18.57	8.07	10.50
1989	1.98	16.72	(14.74)	15.17	7.93	7.24
1988	15.25	6.34	8.91	13.70	9.15	4.55
1987	4.57	(2.67)	7.24	13.89	8.83	5.06
1986	16.50	24.08	(7.58)	12.67	7.21	5.46
1985	26.08	31.54	(5.46)	13.50	8.99	4.51
1984	8.50	14.82	(6.32)	14.97	11.87	3.10
1983	21.80	2.23	19.57	15.74	10.70	5.04
1982	32.45	42.08	(9.63)	17.84	13.86	3.98
1981	7.56	0.48	7.08	15.97	12.08	3.89
1980	(1.00)	(2.96)	1.96	13.46	10.23	3.23
1979	3.69	(0.86)	4.55	12.07	9.13	2.94
1978	7.57	(1.11)	8.68	10.92	8.11	2.81
Arithmetic Annual Average 1978-2009	**11.00**	**8.34**	**2.66**	**12.22**	**6.99**	**5.23**
Compound Annual Average 1978-2009	**9.97**	**7.75**	**2.22**			

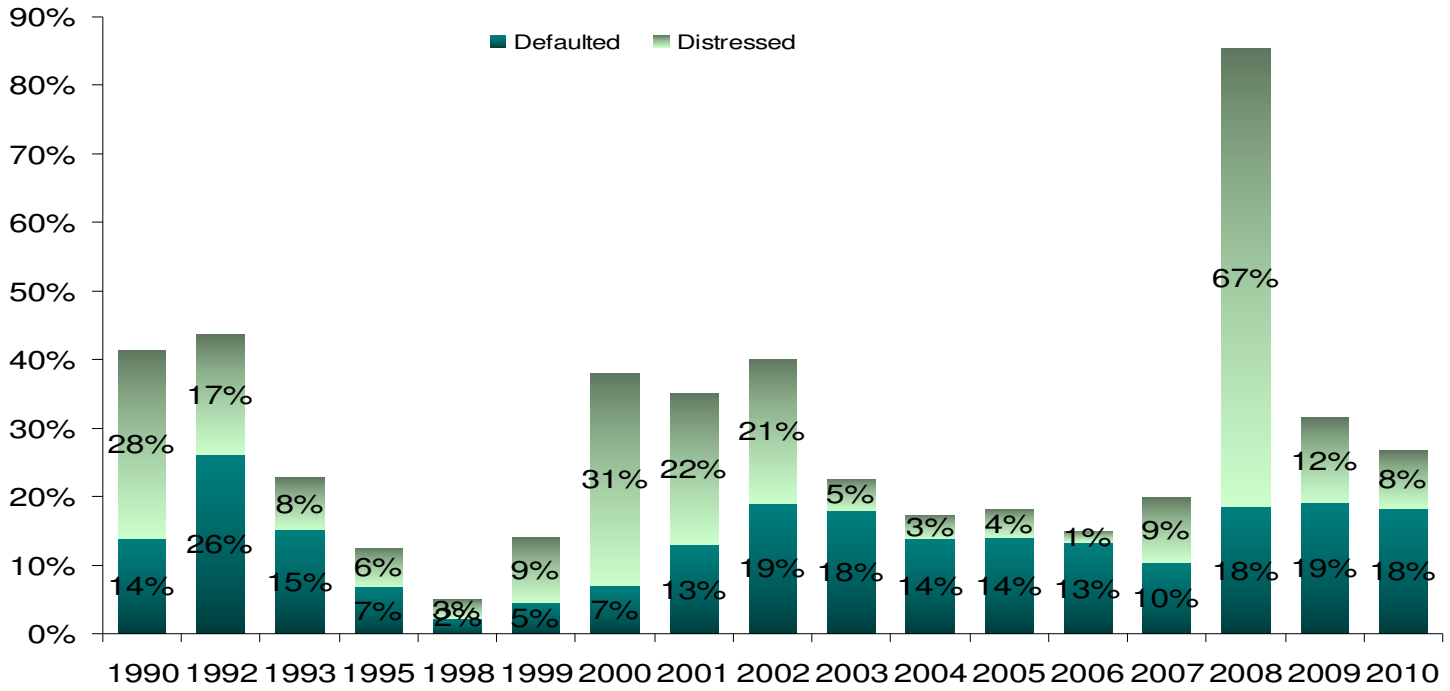
[a] End-of-year yields.

Source: Citigroup's High Yield Composite Index

Size of Distressed Debt Market

Distressed[a] And Defaulted Debt as a Percentage of High Yield And Defaulted Debt Markets[b]

1990 – 2010 (1Q)



(a) Defined as yield-to-maturity spread greater than or equal to 1000bp over comparable Treasuries. (b) $1.482 trillion as of 3/31/2010. (c) Some years not available as no survey results available.

Source: NYU Salomon Center

Estimated Face And Market Values Of Defaulted And Distressed Debt ($ Billions)

2006 – 2010 (1Q)

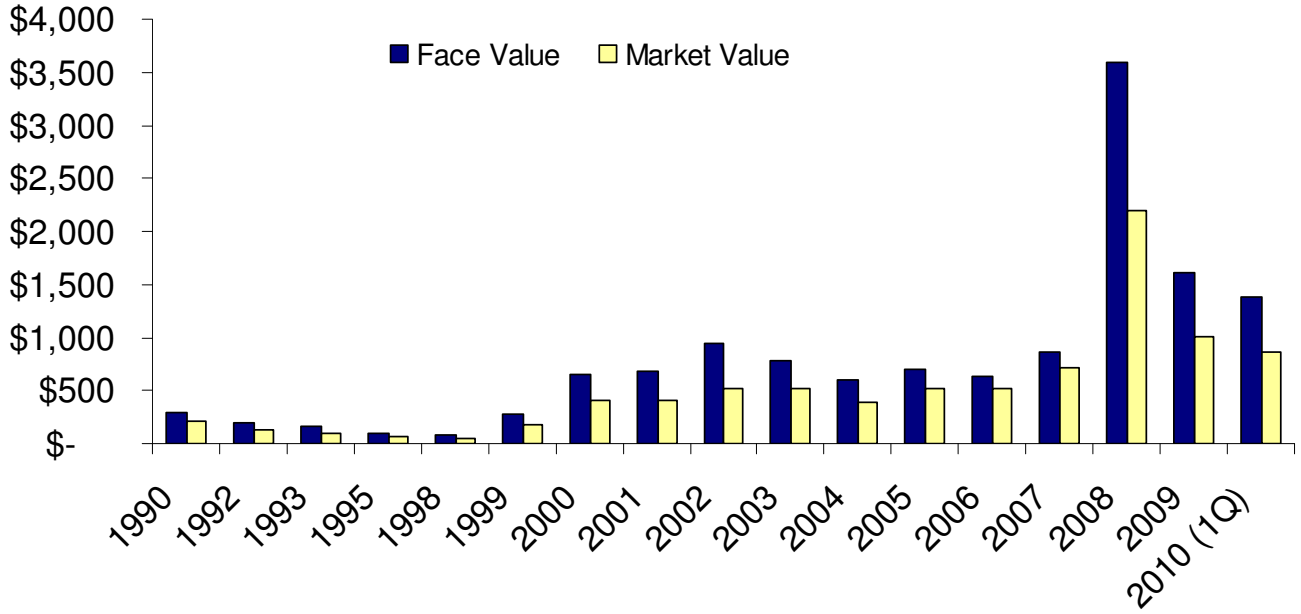
	Face Value ($)			Market Value ($)			
	31 Dec 08	31 Dec 09	31 Mar 10	31 Dec 08	31 Dec 09	31 Mar 10	Market/ Face Ratio[d]
Public Debt							
Defaulted	234.36	279.87	271.79[a]	40.69	97.95	108.72	0.40
Distressed	888.53	180.95	124.66[b]	488.69	135.71	93.50	0.75
Total Public	1,122.89	460.82	396.46	529.38	233.67	202.21	
Private Debt							
Defaulted	515.59	699.67	679.49[c]	299.11	419.80	407.69[c]	0.60
Distressed	1,954.76	452.38	311.66[c]	1,368.33	361.90	249.33[c]	0.80
Total Private	2,470.35	1,152.05	991.14	1,667.44	781.70	657.02	
Total Public and Private	3,593.24	1,612.86	1,387.60	2,196.82	1,015.37	859.23	

[a] Calculated using: (2009defaulted population) + (2010 Defaults) - (2010 Emergences) - (2010 Distressed Exchanges).
[b] Based on 10.3% of the high-yield bond market ($1,210.3 billion) as of 31 Mar 10.
[c] Based on a private/public ratio of 2.5.

Source: NYU Salomon Center and estimates by Professor Edward I. Altman.

Size Of The US Defaulted And Distressed Debt Market ($ Billions)

1990 – 2010 (1Q)



Source: Author's Compilations

Returns and Correlations of the Defaulted Debt Markets

Hedge Fund Distressed Debt Index Returns

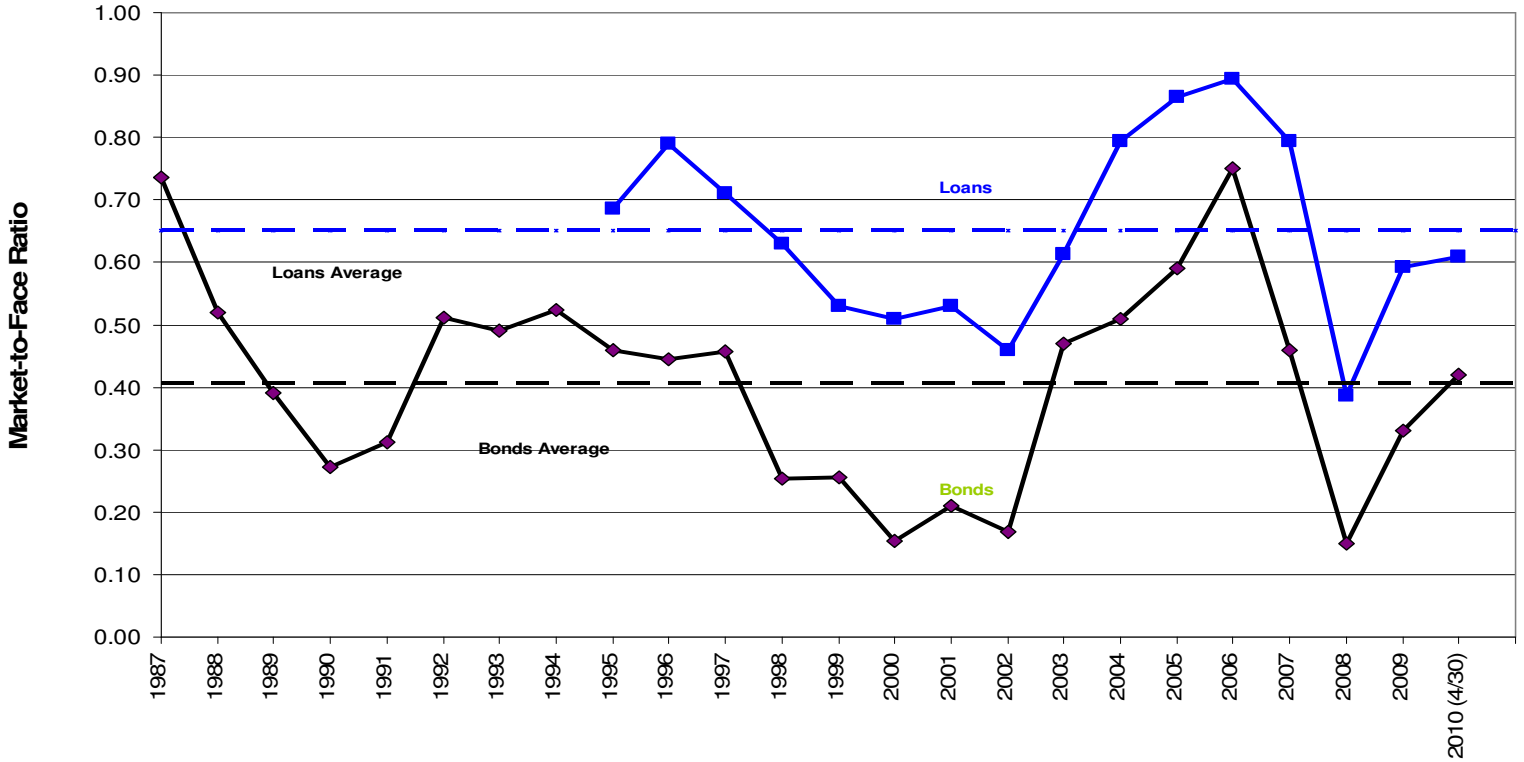
2003 – 2009

Calendar Year	Credit Suisse/ Tremont	Hennessee	HFR	Van Hedge	Altman-Combined
2003	25.12%	26.79%	29.58%	27.42%	49.30%
2004	15.60%	18.98%	18.89%	18.19%	15.14%
2005	11.75%	9.71%	8.25%	9.34%	1.73%
2006	15.58%	15.78%	15.95%	15.33%	23.38%
2007	8.28%	8.31%	5.07%	7.37%	-3.30%
2008	-20.48%	-29.28%	-25.21%	-21.05%	-47.52%
2009	20.95%	42.97%	28.54%	N/A	55.99%

Sources: Bloomberg & NYU Salomon Center

Defaulted Debt Indexes: Market-to-Face Value Ratios

(1987 – 2010 (Apr. 30th))



Loans Median Market-to-Face value is 0.62 and Average Market-to-Face value is 0.65

Bonds Median Market-to-Face value is 0.45 and Average Market-to-Face value is 0.41

Source: Altman-NYU Salomon Center Defaulted Debt Indexes

ALTMAN-NYU SALOMON CENTER
DEFAULTED BOND INDEX
COMPARISON OF RETURNS
(1987 - 2010 (Apr. 30th))

Year	Altman-NYU Salomon Center Defaulted Bond Index	S&P 500 Stock Index	Citigroup High Yield Bond Index
1987	37.85%	5.26%	6.07%
1988	26.49%	16.61%	13.47%
1989	-22.78%	31.68%	2.75%
1990	-17.08%	-3.12%	-7.04%
1991	43.11%	30.48%	39.93%
1992	15.39%	7.62%	17.86%
1993	27.91%	10.08%	17.36%
1994	6.66%	1.32%	-1.25%
1995	11.26%	37.56%	19.71%
1996	10.21%	22.96%	11.29%
1997	-1.58%	34.36%	13.18%
1998	-26.91%	28.58%	3.60%
1999	11.34%	20.98%	1.74%
2000	-33.09%	-9.11%	-5.68%
2001	17.47%	-11.87%	5.44%
2002	-5.98%	-22.08%	-1.53%
2003	84.87%	28.70%	30.62%
2004	18.93%	10.88%	10.79%
2005	-1.78%	4.92%	2.08%
2006	35.62%	15.80%	11.85%
2007	-11.53%	5.50%	1.83%
2008	-55.09%	-37.00%	-25.91%
2009	96.42%	26.46%	55.19%
2010 (4/30)	27.59%	7.05%	6.37%
1987 - 2009 Arithmetic Average (Annual) Rate	37.85%	5.26%	6.07%
Standard Deviation	34.75%	19.01%	16.53%
1987 - 2009 Compounded Average (Annual) Rate	6.41%	9.39%	8.56%
1987 - 2009 Arithmetic Average (Monthly) Rate	0.64%	0.86%	0.73%
Standard Deviation	4.86%	4.53%	2.59%
1987 - 2009 Compounded Average (Monthly) Rate	0.52%	0.75%	0.69%

ALTMAN-NYU SALOMON CENTER
DEFAULTED BANK LOAN INDEX
COMPARISON OF RETURNS
(1996 - 2010 (Apr. 30th))

Year	Altman-NYU Salomon Center Defaulted Bank Loan Index	S&P 500 Stock Index	Citigroup High Yield Bond Index
1996	19.56%	22.96%	11.29%
1997	1.75%	34.36%	13.18%
1998	-10.22%	28.58%	3.60%
1999	0.65%	20.98%	1.74%
2000	-6.59%	-9.11%	-5.68%
2001	13.94%	-11.87%	5.44%
2002	3.03%	-22.08%	-1.53%
2003	27.48%	28.70%	30.62%
2004	11.70%	10.88%	10.79%
2005	7.19%	4.92%	2.08%
2006	4.35%	15.80%	11.85%
2007	2.27%	5.50%	1.83%
2008	-43.11%	-37.00%	-25.91%
2009	32.80%	26.46%	55.19%
2010 (4/30)	12.95%	7.05%	6.37%
1996 - 2009 Arithmetic Average (Annual) Rate	4.63%	8.51%	8.18%
Standard Deviation	18.27%	21.44%	18.32%
1996 - 2009 Compounded Average (Annual) Rate	2.86%	6.25%	6.81%
1996 - 2009 Arithmetic Average (Monthly) Rate	0.31%	0.62%	0.60%
Standard Deviation	3.34%	4.67%	2.97%
1996 - 2009 Compounded Average (Monthly) Rate	0.25%	0.51%	0.55%

COMBINED ALTMAN-NYU SALOMON CENTER
DEFAULTED PUBLIC BOND AND BANK LOAN INDEX

COMPARISON OF RETURNS
(1996 - 2010 (Apr. 30th))

Year	Altman-NYU Salomon Center Combined Index	S&P 500 Stock Index	Citigroup High Yield Bond Index
1996	15.62%	22.96%	11.29%
1997	0.42%	34.36%	13.18%
1998	-17.55%	28.58%	3.60%
1999	4.45%	20.98%	1.74%
2000	-15.84%	-9.11%	-5.68%
2001	15.56%	-11.87%	5.44%
2002	-0.53%	-22.08%	-1.53%
2003	49.30%	28.70%	30.62%
2004	15.14%	10.88%	10.79%
2005	1.73%	4.92%	2.08%
2006	23.38%	15.80%	11.85%
2007	-3.30%	5.58%	1.83%
2008	-47.52%	-37.00%	-25.91%
2009	55.99%	26.46%	55.19%
2010 (4/30)	18.41%	7.05%	6.37%
1996 - 2009 Arithmetic Average (Annual) Rate	6.92%	8.51%	8.18%
Standard Deviation	26.32%	21.44%	18.32%
1996 - 2009 Compounded Average (Annual) Rate	3.65%	6.26%	6.81%
1996 - 2009 Arithmetic Average (Monthly) Rate	0.55%	0.48%	0.50%
Standard Deviation	3.62%	4.80%	3.06%
1996 - 2009 Compounded Average (Monthly) Rate	0.49%	0.37%	0.45%

CORRELATION OF ALTMAN NYU-SALOMON CENTER INDEXES OF DEFAULTED BONDS WITH OTHER SECURITIES INDEXES 1987 – 2009

Correlation of Altman Bond Index Monthly Returns

	Altman Bond Index	S&P 500	Citi HY Index	10yr T-Bond
Altman Bond Index	100.00%	40.38%	67.24%	-27.31%
S&P 500		100.00%	56.29%	0.33%
Citi HY Index			100.00%	-2.68%
10-yr T-Bond				100.00%

CORRELATION OF ALTMAN NYU-SALOMON CENTER INDEXES OF DEFAULTED LOANS WITH OTHER SECURITIES INDEXES 1996 – 2009

Correlation of Altman Indices Monthly Returns

	Altman Bond Index	Altman Loan Index	Altman Combined Index	S&P 500	Citi HY Index	10yr T-Bond
Altman Bond Index	100.00%	66.29%	92.09%	42.41%	69.77%	-34.68%
Altman Loan Index		100.00%	89.16%	33.38%	58.50%	-26.13%
Altman Combined Index			100.00%	40.97%	69.21%	-33.95%
S&P 500				100.00%	60.26%	-14.63%
Citi HY Index					100.00%	-14.78%
10-yr T-Bond						100.00%

U.S. Distressed Debt Managers

Abrams Capital
ADM Maculus
AEG
Anchorage Advisors
Angelo, Gordon & Co.
Apex Fndmntl Partners
Apollo Managememt
Appaloosa Mgmt
Archview Investment
Ares Corp. Opp. Fund
Ashmore Asian Recov.
Atalaya Cap. Mgmt
Aurelius Capital Mgmt
Avenue Capital Group
Basso Asset Mgmt
Baupost Group
Bay Harbour Mgmt
Bayside Capital
Beltway Capital
Bennett Mgmt Co.
Black Diamond
Blackport Capital Fund
Black River Asset Mgmt
Blackrock
Blackstone Group
Blue Mountain Cap Mgmt
Blue Wolf Capital
Bluebay Asset Mgmt
Bluecrest Cap. Mgmt
Bond Street Capital
Boone Capital Mgmt
Brencourt Advisors
Brigade Capital
The Broe Companies
Brookfield Asset Mgmt
Canyon Capital
Candlewood Partners
Cardinal Capital
Carl Marks
Carlyle Strategic
Cargill Value Invstmt
CarVal Investors
Caspian Capital
Centerbridge Capital
Cerberus Partners
Citadel Investments
Cohanzick Mgmt
Columbus Hill Cap.
Commonwealth Advisors
Concordia Advisors
Contrarian Cap. Mgmt
Corsair Capital
Cypress Mgmt
Cyrus Capital Partners
D.E. Shaw
Davidson / Kempner
DDJ Capital Mgmt
Deephaven Cap. Mgmt
Delaware Street Capital
Deltec Recovery Fund
DKPR Wolf Point Mgmt
Drake Mgmt
Dreman Value Mgmt
Drucker Capital
Dune Capital Mgmt

U.S. Distressed Debt Managers

Durham Asset Mgmt
Eagle Rock Capital
Elliott Advisors
Endurance Capital
EOS Partners
Epic Asset Mgmt
Everest Capital Ltd
Fairfield Greenwich
Farallon Partners
Fintech Advisory
Fir Tree Partners
Forest Investment Mgmt
Franklin Mutual Rec.
Fridson Investment Advisors
Fulcrum Capital Mgmt
GE Finance
Glenview Capital Mgmt
GLG Partners, NA
Global Credit Advisors
Golden Capital
GoldenTree Asset Mgmt
Goldman Spec Situations
Gracie Capital
Gradient Partners
Gramercy Capital
Greenlight Capital
Greywolf Capital
Gruss Asset Mgmt
GSC Group
GSO Capital Prtnrs
Guggenheim Inv. Mgmt
H.I.G.
Hain Capital
Halbis Cap. Mgmt (US)
Halcyon/Slika Mgmt.
Harbert Fund Advisors
Harbinger Capital
Harvest Capital
Helios Advisors
HIG Brightpoint Cap.
Highbridge Cap. Mgmt
Highland Capital
Highland Rest. Cap.
Huizenga Capital Mgmt
Icahn Capital Corp.
Insight Equity
Ivory Invest. Management
Jana Partners
JLL Partners
JMB Capital
K Capital Partners
Katonah Scott's Cove Cap. Mgmt.
KD Distressed Capital
Kilimanjaro Advisors
King Street Advisors
Knighthead Capital
KPS Spec. Siittns Fd
Lampe Conway
Latigo Partners
Laurel Ridge Ast Mgmt.
Leucadia Nat'l Corp.
Levco Debt Opps
Litespeed Partners
Littlejohn & Co.
Loeb Partners
Lonestar Partners
LongAcre Cap. Partners
Longroad Asset Mgmt

U.S. Distressed Debt Managers

Marathon Capital
Mariner Invest. Group
Mason Capital Management
MatlinPatterson Global
Mellon HBV Cap. Mgmt
MHR
Millennium
MJ Whitman Mgmt Co.
Monarch Alternative Cap.
Monomoy Capital
Mount Kellett Cap. Mgmt
MSD Capital
New Generation Advisers
Normandy Hill Capital
Oakhill
Oaktree Capital
Och Ziff Capital Management
Octavian Advisors
Onex Credit Partners
Orehill Partners
Owl Creek Asset Management
Pacholder Assoc., Inc.
Pacific Altern. Ast Mgmt.
Paige Capital
Pardus Capital
Patriarch
Paulson & Co.
Pegasus Investors
Perella Weinberg Ptnrs Cap.
Perry Partners
Phoenix Investment Adviser
Pine Creek
Pinewood Cap. Partners
Plainfield Asset Mgmt
PMI
Principal Global Investors
Questor Management
Radius Partners
Ramius
Redwood Capital
Resolution Partners
Restoration Capital Mgmt
Resurgence Corp. Fund
Salisbury
Sandell Asset Mgmt
Scoggin Capital
Seneca Cap. Inv. Ptnshp
Signature Cap. Partners
Silverpoint Capital
Solus Alternative Management
Soros NY
Spring Street
Stanfield Capital Mgmt
Stairway Capital Advisors
Standard General Management
Stark Investments
Stone Harbor Inv. Ptnrs
Stonehill Capital
Stone Lion Capital
Stony Lane Partners
Strategic Value Partners
Summit
Sunrise Capital Partners
TA Mckay & Co.
Taconic Capital Partners
Tennenbaum Capital
Third Avenue Value Fund
Third Point
Tiburon Capital Management

U.S. Distressed Debt Managers

Treadstone Group
Tricadia Capital
Triage Capital
Trilogy Capital
Trust Co. of the West
Tuckerbrook
Tudor Investment Corp.
Turnberry Capital
Twin Haven Capital
Tyndall Partners
Van Kampe
Varde Partners, Inc.
Venor Capital Mgmt
Versa Capital Mgmt
Viking Global
W.L. Ross & Co.
Washington Corner Cap.
Watershed Asset Management
Wayzata Invest. Partners
Wellspring Cap. Partners
Wexford Capital
William E. Simon & Sons
Woodside Management
York Capital
Z Capital Partners

U.S. Distressed Funds with European Offices

Aladdin Capital Management
Apollo Management
Avenue Capital Group
Camulos Capital
Cargill Investors
Cerberus Partners
Citadel Investments
Davidson Kempner
D.E. Shaw
Elliott Advisors
EOS Partners
Fortress Capital Corp
HBK Investments
Highbridge Capital Management
Kelso Place Asset Management
Lonestar Partners
Marathon Capital
Matlin Patterson Global Advisors
Millennium Capital
Oaktree Capital
Och Ziff Capital Mgmt.
Peter Schoenfeld Asset Mgmt.
Silverpoint Capital
Strategic Value Partners
TPG Credit Mgmt.
Värde Partners

European Distressed Debt Managers (Home Grown)

Alchemy Partners
Argo Capital
Arrowgrass Capital Partners
Bluebay Asset Management
Butler Capital Management
Carousel
Cyrus Capital
Development & Partenariat
Endless
EQT Opportunities
Equinox
Fin'active
Fortelus Capital management
Green Recovery
H2 Equity Partners
HIG Europe Capital Partners
Ilex
Marco Polo
Nordwind Capital
Orlando Management GmbH
Perusa
Providente
RAB Capital
Rutland Fund
Sisu Capital
Sothic Capital Management
Trafalgar Asset Managers
Verdoso Special Opportunity Fund
Vermeer Capital Partners

Distressed Active/Control Investors

American Securities
Angelo, Gordon & Co.
Apollo Management
Appaloosa Management
Audax Credit Opportunities
Aurelius Capital Management
Aurora Resurgence Mgt Partners
Avenue Capital Partners
Bay Harbour Management
Black Diamond
BlackEagle Partners
Brookfield Asset Mgmt
Carlyle Strategic Partners
Catalyst Partners
Centerbridge Capital Partners
Cerberus Partners
Citadel Limited Partnership
DDJ Capital Management
D.E. Shaw
Elliott Associates
Ewing Management
Farallon Capital
Gores Group
GSC Group
Harbinger Capital Partners
H.I.G. Capital
Highland Rest. Capital Partners
Industria Partners
Insight Equity I
Levine Liechtman
Littlejohn & Co.
Lone Star Partners
Longroad Asset Management
KPS Special Situations Fund
Marathon Capital
Marlin Equity Partners
MatlinPatterson Global Advisors
Mellon HBV
MHR Institutional Partners
Millroad Partners
Monomoy Capital Partners
Newport Global Advisors
Oakhill
Oaktree Capital
Panagaen Capital Management
P. Schoenfeld Asset Management
Paulson & Co.
Perry Capital
Plainfield Asset Mgt
Platinum Equity Capital Partners
Prophet Equity
Ramius Capital Group
Relativity Fund
Remedial Capital
Resurgence Asset Management
Sandell Asset Management Corp.
Saybrook Capital
Silver Point Capital
Stark Investments
Stony Lane Partners
Strategic Value Partners
Sun Capital Partners
Sunrise Capital
TCW Crescent Mezzanine
TPG Credit Management
Tuckerbrook
Tudor Investment Corp et al
Twin Haven Caqpital
Vector Capital

Distressed Active/Control Investors

Versa Capital Management
Water Tower Capital
Wayzata Investment Partners
W.L. Ross & Co
Whippoorwill Associates
Wingate Partners
York Capital
Z Capital Partners

Investment Styles and Target Returns in Distressed Debt Investing

Active/Control	Active/Non-Control	Passive
Requires 1/3 minimum to block and ½ to control; may require partner(s)	Senior secured, senior unsecured	Invest in undervalued securities trading at distressed levels
Take Control of company through debt/equity swap	Active participation in restructuring process; Influence process	Sub-strategies: trading/buy-hold/senior or senior secured/sub debt/"busted converts"/capital structure arbitrage/long-short, value
Restructure or even purchase related businesses; roll-up	Exit via debt or equity (post-chapter 11) markets	Trading oriented; Sometimes get restricted
Equity infusion; run Company	Generally do not control	Holding period of 6 months to 1 year generally; Longer sometimes
Exit 2-3 years	Holding period of 1-2 years	Target return: 12-20%
Large or Mid-Small Cap focus	Large or Mid-Small Cap focus	
Target return: 20-25%	Target return: 15-20%	