

Standard & Poor's Annual 2005 Global Corporate Default Study And Rating Transitions

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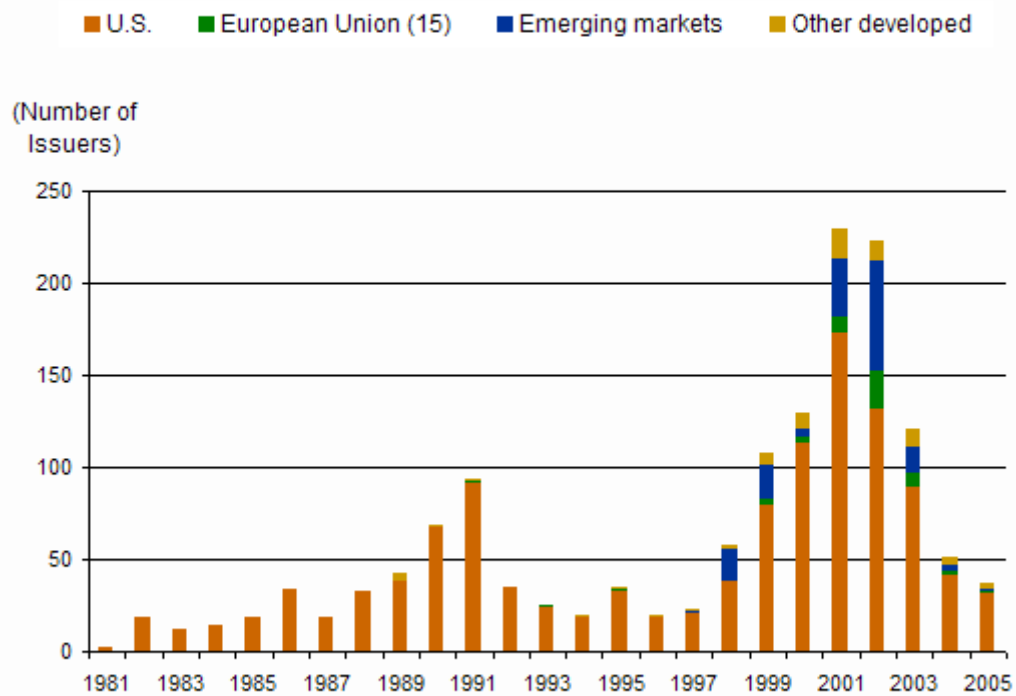
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The key points presented in this study are as follows:

- The global corporate default rate for speculative-grade and investment-grade rated entities remained near all-time lows, reaching 0.55% at the end of 2005 from 0.73% in 2004 on an issuer-weighted basis.
- Globally, speculative-grade default rates have remained below the long-term (1981-2005) average of 4.65% for 23 consecutive months.
- In 2005, the total number of defaults (37) was the lowest recorded since 1997, but the global default rate is expected to edge up from its trough in 2006.
- A spate of high-profile defaults in the third and fourth quarters of 2005 raised the total amount of debt affected to US\$42.5 billion, the largest volume since 2003.
- Analysis of the transition rates over the four quarters ended December 2005 suggests that ratings behavior continues to exhibit consistency with long-term trends, showing a clear negative correlation between credit quality and default probability.
- Not surprisingly, low defaults coincided with high recovery rates, with ultimate recoveries in 2005 posting their highest rates in 10 years.
- Gini ratios displayed a high degree of ratings accuracy in terms of their historical ability of ratings to predict default. Among corporate entities rated by Standard & Poor's, an average one-year Gini coefficient of 84% was recorded; three-year 78%; five-year 75%; and seven-year 72%. (For details on Gini ratios, refer to Appendix II at the end of the report).
- Corporate rating behavior was consistent with the improving trends noted in other asset classes, notably global structured finance. Appendix III summarizes the key points from global structured finance relative to corporates.

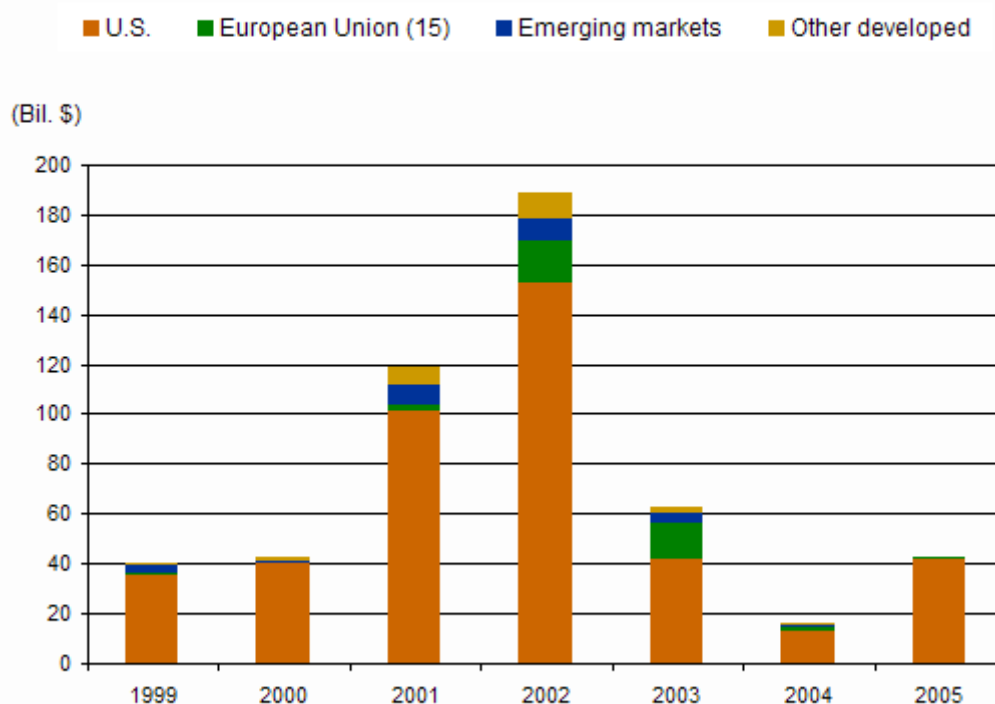
A total of 37 corporate defaults were recorded globally in 2005, affecting rated debt worth US\$42.5 billion (see Charts 1 and 2). Of the total, the U.S. recorded 32 defaults, whereas Europe recorded one, affecting rated debt worth US\$41.6 billion and US\$378 million, respectively. The remaining four defaults were a Canada-based telecommunications company, a Japan-based automotive company, a Uruguay-based petroleum and natural gas company, and a confidentially rated default. This concentration is in part attributable to the larger rated population in the U.S. Table 3 provides an itemized list of all the defaults recorded in 2005. On an annual basis, the overall issuer-weighted default rate—including both investment-grade and speculative-grade entities—was 0.55%, the lowest rate since 1997 (see Table 1). One year earlier, 51 defaults had been recorded on rated debt worth US\$16.2 billion. The historical breakout of speculative-grade default rate by region is displayed in Table 2. At 1.35% in Dec. 2005, the global speculative-grade default rate has remained below the long-term (1981-2005) average of 4.65% for 23 consecutive months, but is still more than the record low of 1.3% posted in the second quarter of 1997.

Chart 1

Annual Corporate Defaults By Number Of Issuers

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Chart 2

Annual Global Corporate Defaulting Debt Amount

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 1

Global Corporate Default Summary							
Year	Total Defaults*	Investment-Grade Defaults	Speculative-Grade Defaults	Default Rate (%)	Investment-Grade Default Rate (%)	Speculative-Grade Default Rate (%)	Total Debt Defaulting (Bil. \$)
1981	2	0	2	0.1	0.0	0.6	0.1
1982	18	2	15	1.2	0.2	4.4	0.9
1983	12	1	10	0.8	0.1	2.9	0.4
1984	14	2	12	0.9	0.2	3.2	0.4
1985	19	0	18	1.1	0.0	4.3	0.3
1986	34	2	30	1.7	0.1	5.6	0.5
1987	19	0	19	0.9	0.0	2.8	1.6
1988	33	0	30	1.4	0.0	3.9	3.3
1989	42	2	34	1.7	0.1	4.5	7.3
1990	69	2	56	2.7	0.1	8.1	21.2
1991	94	3	65	3.3	0.2	11.0	23.6
1992	35	0	30	1.4	0.0	5.7	5.4
1993	25	0	13	0.5	0.0	2.3	2.4
1994	20	1	15	0.6	0.1	2.1	2.3
1995	35	1	29	1.0	0.0	3.5	9.0

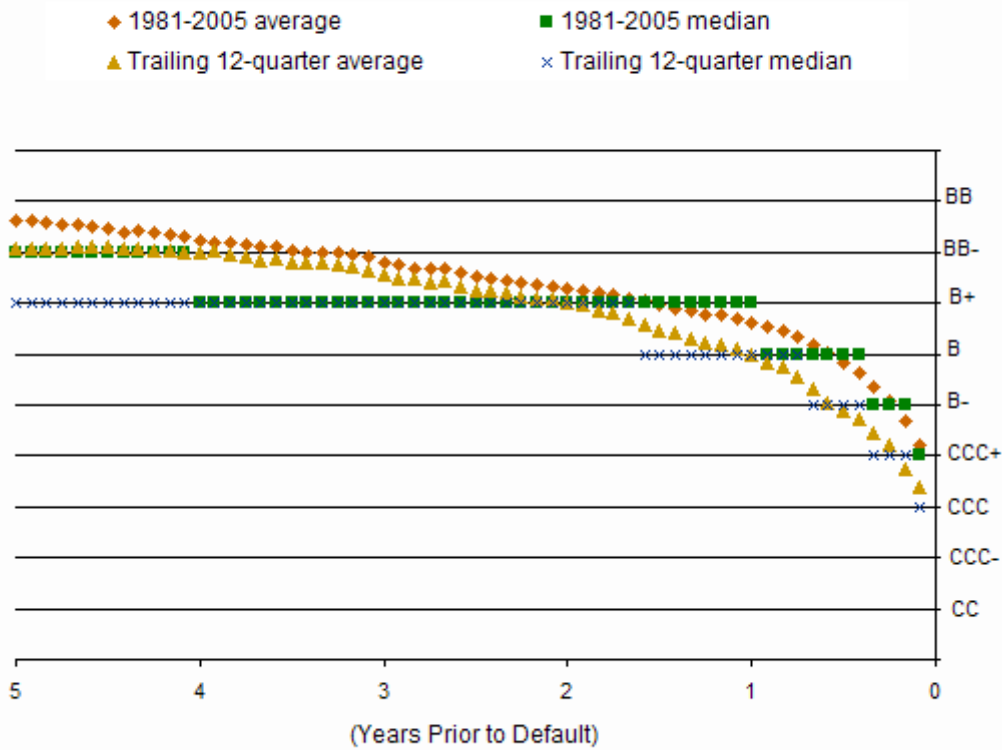
1996	20	0	16	0.5	0.0	1.8	2.7
1997	23	2	20	0.6	0.1	2.0	4.9
1998	58	4	49	1.3	0.1	3.7	11.3
1999	108	4	92	2.2	0.1	5.5	37.8
2000	129	5	104	2.4	0.2	5.8	43.0
2001	229	6	173	3.8	0.2	9.6	118.8
2002	223	14	158	3.6	0.5	9.2	190.1
2003	121	3	90	1.9	0.1	4.9	62.5
2004	51	0	37	0.7	0.0	1.9	16.2
2005	37	1	29	0.6	0.0	1.3	42.0

*This column includes companies that were no longer rated at the time of default. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

The majority of defaults in 2005 were in the industrial sector, which constituted 31 of 37 defaults. Other sectors recording defaults in 2005 were telecommunications, utilities, and financial institutions with two defaults each. Within the industrial segment, transportation companies were worst affected (seven defaults), followed by automotive (six) and consumer products (five). Forest products and building materials, metals mining and steel, and retail/restaurants recorded two defaults each in 2005.

The average time to default for the pool of 37 defaulting issuers in 2005 was 8.4 years. The average time to default was marked at 6.3, 7.6, 11.9, and 5.4 years during the four quarters of 2005, respectively. The longest time to default among the 2005 entities was 24.7 years recorded by a U.S.-based utility (Entergy New Orleans Inc.), whereas the shortest was seven months recorded by a Japanese automaker (Mitsubishi Motors Corp.). This entity defaulted seven months after it had regained a rating subsequent to a previous default in 2004. Mitsubishi Motors Corp. has received a series of capital infusions in the form of debt-for-equity exchanges in which the consideration was less than par value (tantamount to default). All but seven defaulting entities in 2005 were originally rated speculative grade ('BB+' or lower). Not surprisingly, defaulted entities originally assigned an investment grade rating ('BBB-' or higher) had a higher average time to default (14.0 years), nearly double that of entities that were originally rated speculative grade (7.1 years). The rating path observed for defaulters in the trailing 12 quarters is broadly representative of the long-term ratings trend, which shows that both the average rating and median rating on all defaulting entities were in the speculative-grade category in the five years preceding default (see Chart 3).

Chart 3

Average And Median Rating Path Of Defaulters

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 2

Annual Speculative-Grade Default Rate By Region				
Year	U.S. And Tax Havens*	European Union†	Emerging Markets	Other‡
1981	0.62	0.00	N.A.	N.A.
1982	4.41	0.00	N.A.	N.A.
1983	2.96	0.00	N.A.	0.00
1984	3.29	0.00	N.A.	0.00
1985	4.37	0.00	N.A.	0.00
1986	5.71	0.00	N.A.	0.00
1987	2.81	0.00	N.A.	0.00
1988	3.99	0.00	N.A.	0.00
1989	4.17	0.00	N.A.	37.50
1990	7.88	0.00	N.A.	28.57
1991	10.69	50.00	N.A.	25.00
1992	5.86	0.00	N.A.	0.00
1993	2.21	20.00	0.00	0.00
1994	2.19	0.00	0.00	0.00
1995	3.62	8.33	0.00	0.00
1996	1.83	0.00	0.00	2.56
1997	2.15	0.00	0.00	1.89
1998	3.23	0.00	8.19	1.35
1999	5.16	6.58	7.14	5.00
2000	7.00	2.02	1.78	5.88
2001	10.51	7.34	5.88	12.12
2002	7.12	12.90	15.06	7.14
2003	5.55	3.42	3.39	5.08
2004	2.30	1.23	0.73	2.41
2005	1.88	0.56	0.21	1.18

*U.S., Bermuda, and Cayman Islands. †Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and U.K. ‡Australia, Canada, Iceland, Isle of Man, Japan, Liechtenstein, Malta, Monaco, New Zealand, Norway, and Switzerland. N.A.—Not available. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 3

2005 Defaults*				
Company	Country	Industry	Debt Amount (Mil.\$)	Default Date
Inland Fiber Group LLC	U.S.	Forest products and building materials	225.0	1/13/2005
Tower Automotive Inc.	U.S.	Automotive	1,156.5	2/2/2005
Brown Jordan International, Inc.	U.S.	Consumer products	105.0	2/15/2005
Concordia Bus AB	Sweden	Transportation	378.0	2/15/2005
Winn-Dixie Stores Inc.	U.S.	Retail/restaurants	1,385.9	2/21/2005
WHX Corp.	U.S.	Metals, mining, and steel	245.1	3/8/2005
Mitsubishi Motors Corp.	Japan	Automotive	0.0	3/10/2005
aaiPharma Inc.	U.S.	Consumer products	175.0	4/1/2005

Ventro Corp.	U.S.	High technology	9.3	4/1/2005
Eagle Picher Holdings Inc.	U.S.	Automotive	522.4	4/11/2005
SR Telecom Inc.	Canada	Telecommunications	60.7	4/22/2005
Meridian Automotive Systems Inc.	U.S.	Automotive	485.0	4/26/2005
Collins & Aikman Corp.	U.S.	Automotive	1,665.0	5/17/2005
Administracion Nacional de Combustibles Alcohol y Portland	Uruguay	Oil and gas exploration and production	0.0	5/31/2005
Salton Inc.	U.S.	Consumer products	275.0	6/15/2005
Frontier Insurance Group, Inc.	U.S.	Insurance	0.0	7/5/2005
O'Sullivan Industries Holdings Inc.	U.S.	Consumer products	255.0	7/15/2005
Allied Holdings Inc.	U.S.	Transportation	150.0	7/31/2005
Anchor Glass Container Corp.	U.S.	Forest products and building materials	350.0	8/8/2005
ASARCO Inc.	U.S.	Metals, mining, and steel	439.8	8/10/2005
Foamex L.P./Foamex Capital Corp.	U.S.	Finance company	497.5	8/15/2005
Delta Air Lines Inc.	U.S.	Transportation	6,046.9	9/14/2005
Delta Air Lines Inc. - Western Air Lines Inc.	U.S.	Transportation	0.0	9/14/2005
Northwest Airlines Corp.	U.S.	Transportation	2,677.8	9/14/2005
Northwest Airlines Corp. - Republic Airlines Inc.	U.S.	Transportation	0.0	9/14/2005
Entergy Corp - Entergy New Orleans Inc.	U.S.	Utility	155.0	9/23/2005
Charter Communications Inc. - Charter Communications Holdings, LLC	U.S.	Telecommunications	8,687.7	9/26/2005
Delphi Corp.	U.S.	Automotive	4,822.5	10/8/2005
Boyds Collection Ltd. (The)	U.S.	Consumer products	34.4	10/16/2005
Refco Group Ltd., LLC	U.S.	Broker	1,265.0	10/17/2005
Levitz Home Furnishings, Inc.	U.S.	Retail/restaurants	130.0	10/11/2005
FLYi Inc.	U.S.	Transportation	125.0	11/7/2005
Curative Health Services Inc.	U.S.	Healthcare	185.0	12/20/2005
Calpine Corp.	U.S.	Utility	9,559.5	12/6/2005
(Three companies were confidentially rated.)			406.0	
Total			42,475	

*Excludes three confidentially rated defaults. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

2005 Defaults*

Company	Next To Last Rating	Date Of Next To Last Rating	First Rating	Date of First Rating
Inland Fiber Group LLC	CCC	12/17/2003	B+	10/24/1997
Tower Automotive Inc.	CCC	1/21/2005	BB	12/9/1997
Brown Jordan International, Inc.	NR	9/14/2004	B+	8/4/1999
Concordia Bus AB	CC	1/19/2005	BB	1/17/2000
Winn-Dixie Stores Inc.	CCC	2/11/2005	BBB-	9/26/2000
WHX Corp.	CCC-	11/19/2004	BB	9/14/1994
Mitsubishi Motors Corp.	CC	1/31/2005	CCC+	7/29/2004
aaiPharma Inc.	CC	3/17/2005	B+	3/19/2002
Ventro Corp.	NR	10/19/2001	B-	5/25/2000
Eagle Picher Holdings Inc.	CCC+	3/24/2005	B+	2/6/1998
SR Telecom Inc.	CC	1/20/2005	BB-	4/9/1998
Meridian Automotive Systems Inc.	CCC+	2/14/2005	BB-	6/19/2000
Collins & Aikman Corp.	CCC-	5/12/2005	A	12/31/1980

Administracion Nacional de Combustibles Alcohol y Portland	B	7/22/2004	BBB	8/15/2000
Salton Inc.	CCC	11/23/2004	B+	12/4/1998
Frontier Insurance Group, Inc.	NR	3/24/2000	BBB+	3/31/1997
O'Sullivan Industries Holdings Inc.	CCC+	2/7/2005	B+	11/2/1999
Allied Holdings Inc.	CCC-	6/10/2005	BB	9/2/1997
Anchor Glass Container Corp.	CCC	6/28/2005	B+	1/24/2003
ASARCO Inc.	CCC	7/12/2005	CCC+	12/9/2003
Foamex L.P./Foamex Capital Corp.	CCC+	7/11/2005	B+	9/25/1992
Delta Air Lines Inc.	CC	9/16/2004	A	12/30/1980
Delta Air Lines Inc. - Western Air Lines Inc.	NR	6/15/1988	BB-	12/30/1980
Northwest Airlines Corp.	CCC-	9/6/2005	BB-	7/18/1995
Northwest Airlines Corp. - Republic Airlines Inc.	NR	2/1/1988	B+	1/5/1983
Entergy Corp - Entergy New Orleans Inc.	CCC+	9/20/2005	BBB+	12/30/1980
Charter Communications Inc. - Charter Communications Holdings, LLC	CCC+	8/19/2003	BB	3/10/1999
Delphi Corp.	CCC-	10/6/2005	BBB	2/17/1999
Boyds Collection Ltd. (The)	CCC	5/18/2005	B+	4/15/1998
Refco Group Ltd., LLC	CC	10/14/2005	BB-	7/12/2004
Levitz Home Furnishings, Inc.	NR	9/2/2005	B-	10/18/2004
FLYi Inc.	CC	1/11/2005	B	9/29/1997
Curative Health Services Inc.	CCC+	8/10/2005	B	4/6/2004
Calpine Corp.	CCC-	12/2/2005	B	1/28/1994

(Three companies were confidentially rated.)

*Excludes three confidentially rated defaults. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Within the speculative-grade category, the lower the original rating of an issuer, the shorter the time to default over the long term. For example, for the entire pool of defaulters (1981-2005), the average time to default for issuers that were originally rated in the 'BB' and 'B' rating categories was 5.9 years and 4.4 years, respectively, from initial rating (or from Dec. 31, 1980, the starting date of the study), whereas issuers in the 'CCC' rating category or lower had an average time to default of 2.6 years (see Table 4). Tables 4 and 5 display the median, average and standard deviations for the time to default from original as well as last rating. Note that the standard deviation of the times to default shrink progressively as one moves down the ratings ladder.

Table 4

Time To Default From Original Rating				
Original Rating	Defaults	Average Years From Original Rating*	Median Years From Original Rating	Standard Deviation Of Years From Original Rating
AAA	3	8.0	7.6	0.9
AA	18	12.0	10.1	6.1
A	58	12.5	10.7	6.5
BBB	133	8.0	6.4	5.9
BB	395	5.9	4.5	4.5
B	790	4.4	3.5	3.5
CCC/C	73	2.6	1.7	2.4
Total	1470	5.4	4.0	4.6

*Or Dec. 31, 1980, whichever is later. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 5

Time To Default From Last Rating				
Last Rating Prior to 'D'	Defaults	Average Years From Prior Rating	Median Years From Prior Rating	Standard Deviation of Years From Prior Rating
BBB	8	0.6	0.1	1.2
BB	28	1.6	1.3	1.5
B	291	1.2	0.7	1.3
CCC/C	852	0.4	0.2	0.6
N.R.	291	3.7	2.4	4.1
Total	1470	1.2	0.3	2.4

N.R.—Not rated. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

The incidence of defaults had been steadily trending down since its peak in 2002 but appears to have hit bottom in 2005 (see Chart 4). The seven defaults in the fourth quarter constituted the lowest number of defaults since the second quarter of 2004. In contrast, the volume of debt affected by the defaults rose to US\$19.6 billion and US\$16.1 billion in the third and fourth quarter of 2005, respectively, the highest levels since 2003 (see Chart 5). Most of the escalation in debt volume was attributable to the defaults by Charter Communications Inc., Delta Air Lines Inc., and Northwest Airlines Corp. in the third quarter and the defaults by Delphi Corp. and Calpine Corp. in the fourth quarter. For a listing of the largest defaults by year, refer to Table 6. In Europe, the dollar volume of debt defaulting shrank to US\$378 million from US\$1.3 billion one year earlier.

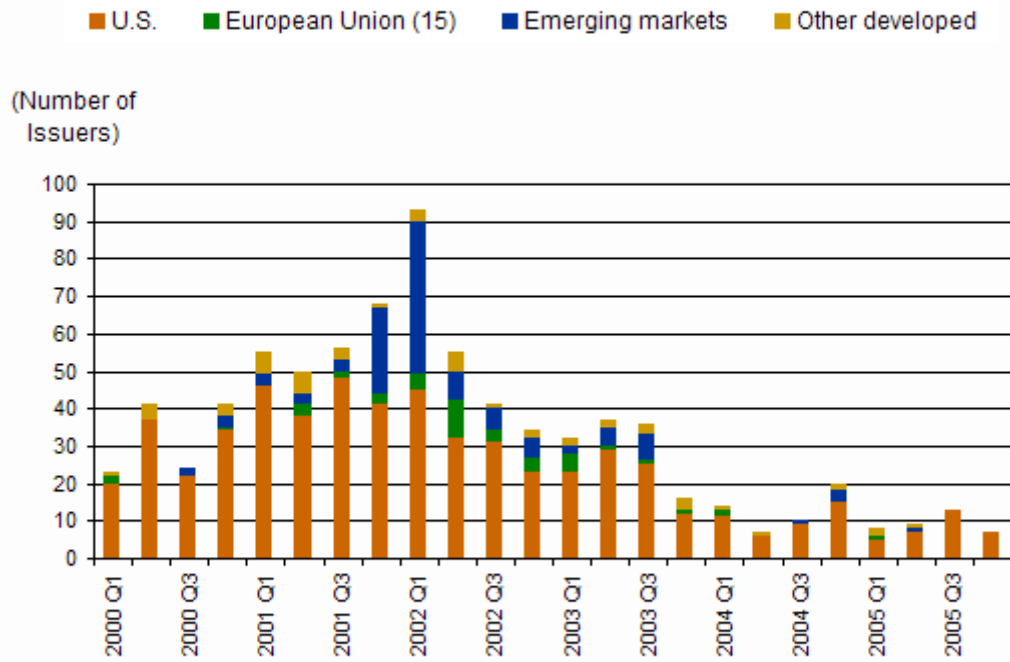
Table 6

Largest Global Rated Defaults By Year		
Largest Corporate Defaulters By Outstanding Debt Amount		
Year Defaulted	Issuer	Amount (Mil. \$)
1991	Columbia Gas System	2,292
1992	Macy (R.H.) & Co.	1,396
1993	Mesa, Inc.	600
1994	Confederation Life Insurance	2,415
1995	Grand Union Co./Grand Union Capital	2,163
1996	Tiphook Finance	700
1997	Flagstar Corp.	1,021
1998	Service Merchandise Co.	1,326
1999	Integrated Health Services Inc.	3,394
2000	Owens Corning	3,299
2001	Enron Corp.	10,779
2002	WorldCom Inc.	30,000
2003	Parmalat Finanziaria SpA	7,177
2004	RCN Corp.	1,800
2005	Calpine Corp.	9,559

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02

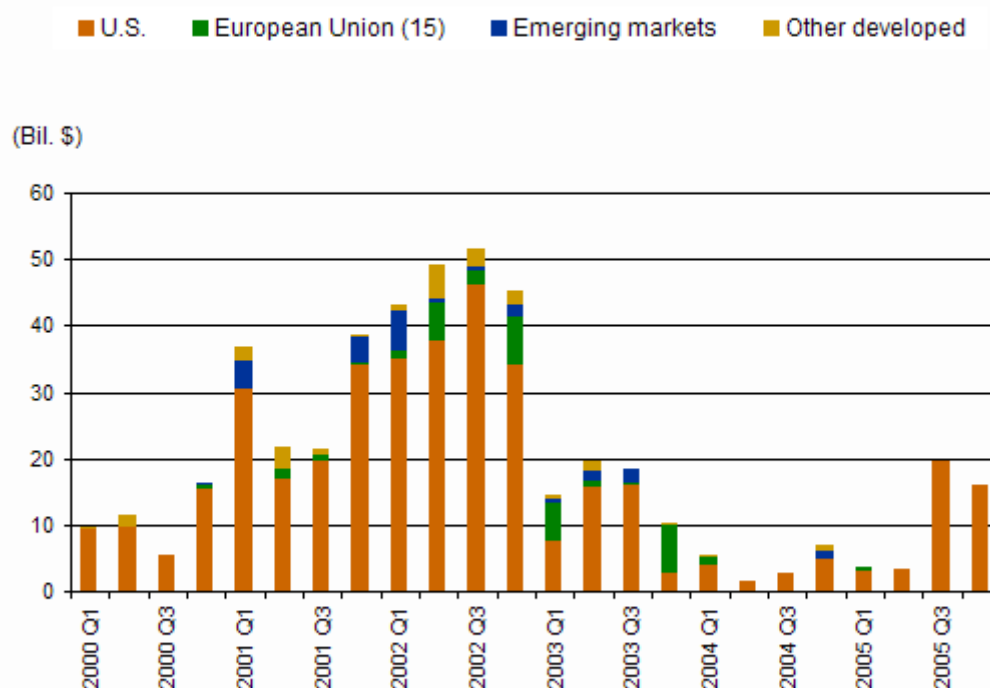
By industry, the highest default rates in 2005 were recorded in the transportation sector, followed by the broadly defined heavy industrials sector (comprised of aerospace, automotive, capital goods, and metals) and the consumer/service sector. Table 7 shows a historical breakout of global default rates by industry. The high default incidence among transportation, automotive, and consumer products entities is broadly mirrored in the industry concentration at the top rungs of the weakest links of the past 18 months.

Chart 4

Quarterly Corporate Defaults By Number Of Issuers

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02

Chart 5

Quarterly Global Corporate Defaulting Debt Amount

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 7

Annual Default Rates By Industry (%)						
Year	Aerospace / automotive / capital goods / metal	Consumer / service sector	Energy and natural resources	Financial institutions	Forest and building products / homebuilders	
1981	0.00	0.00	0.00	0.00	0.00	
1982	1.26	1.63	0.80	1.02	2.70	
1983	0.89	1.23	2.52	0.00	0.00	
1984	0.00	0.40	4.72	0.00	1.39	
1985	1.23	1.54	4.72	0.00	0.00	
1986	4.56	0.34	9.02	0.00	1.25	
1987	1.79	1.31	4.42	0.00	1.09	
1988	1.12	1.90	1.94	1.99	1.01	
1989	2.32	1.25	0.00	2.48	0.00	
1990	1.98	4.76	0.00	1.43	7.92	
1991	3.02	6.62	2.97	1.90	7.95	
1992	1.72	2.79	0.93	1.83	1.30	
1993	1.65	1.00	1.65	0.24	0.00	
1994	0.40	1.21	0.78	0.00	0.95	
1995	0.00	3.66	0.69	0.51	2.50	

1996	0.96	1.85	0.62	0.00	0.00
1997	0.88	2.40	0.00	0.27	0.00
1998	1.02	3.28	1.42	1.21	1.14
1999	3.82	3.10	5.00	0.25	1.55
2000	3.81	5.25	0.88	0.12	3.57
2001	9.45	5.97	1.73	1.53	4.28
2002	5.36	2.92	3.31	0.73	4.86
2003	3.51	3.04	1.19	0.29	1.11
2004	2.26	1.58	0.78	0.09	1.59
2005	1.33	1.01	0.36	0.09	0.48

Includes investment-grade and speculative-grade rated entities. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Annual Default Rates By Industry (%)

Year	Health care / chemicals	High technology / computers / office equipment	Insurance	Leisure time / media	Real estate	Telecommunications	Transportation	Utility
1981	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00
1982	0.00	1.47	2.78	2.08	0.00	0.00	2.02	0.40
1983	0.00	0.00	4.35	0.00	0.00	0.00	0.99	0.00
1984	0.00	2.99	0.00	1.52	0.00	0.00	2.91	0.00
1985	2.08	0.00	1.52	2.50	0.00	0.00	0.00	0.00
1986	1.87	3.53	0.00	0.94	0.00	0.00	0.87	0.00
1987	0.83	0.00	0.00	0.72	0.00	1.37	0.00	0.37
1988	3.17	0.00	0.00	3.16	0.00	1.28	0.00	0.72
1989	0.00	1.01	0.58	7.24	9.38	0.00	1.69	0.00
1990	0.00	4.60	0.00	9.70	8.00	2.60	3.60	0.00
1991	1.75	2.78	1.83	6.90	5.56	0.00	6.00	0.69
1992	0.00	4.35	0.00	1.83	5.56	0.00	0.00	0.98
1993	0.00	2.63	0.00	0.81	0.00	0.00	0.00	0.00
1994	0.60	1.18	0.26	2.82	0.00	0.00	1.60	0.00
1995	1.10	1.06	0.23	1.72	0.00	0.00	2.36	0.00
1996	0.00	0.00	0.00	1.94	0.00	0.95	0.00	0.00
1997	0.47	0.93	0.22	0.44	0.00	1.65	0.71	0.00
1998	2.07	0.00	0.00	2.81	0.77	1.18	1.85	0.00
1999	3.10	1.23	0.92	5.09	0.00	1.88	4.89	0.20
2000	4.30	4.29	0.71	4.03	0.00	2.98	4.49	0.38
2001	4.18	4.88	0.00	4.91	0.00	11.11	3.39	0.53
2002	1.81	1.82	0.96	5.83	0.56	17.01	4.92	4.17
2003	2.48	2.29	0.68	0.66	0.00	10.60	2.37	1.51
2004	0.32	0.00	0.00	0.94	0.00	1.45	0.99	0.17
2005	0.86	0.00	0.00	0.62	0.00	0.44	2.27	0.32

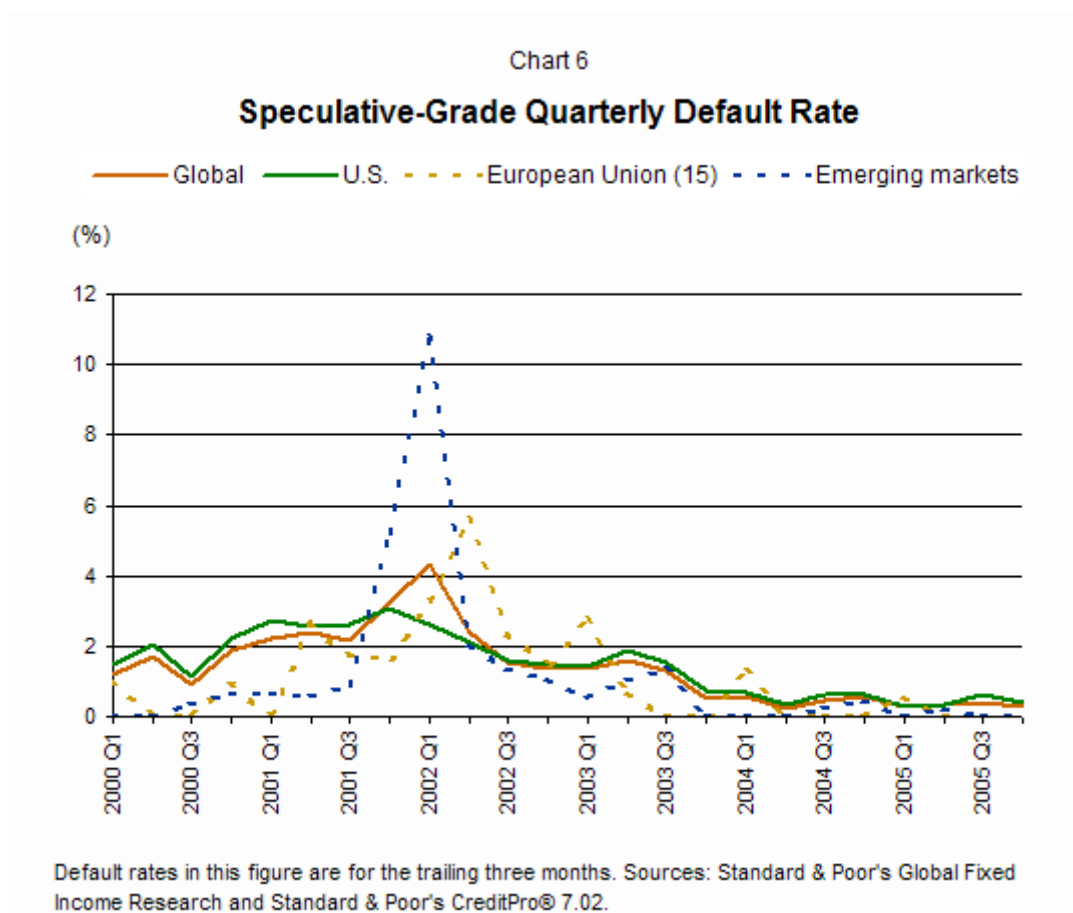
Includes investment-grade and speculative-grade rated entities. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

The trend in the quarterly default rate—defined as the number of defaulting entities as a proportion of total entities rated by Standard & Poor's—corroborates the compression in defaults. The EU speculative-grade default rate showed the greatest deceleration relative to its 2002 peak,

but volatility in this series is in part exacerbated by the smaller size of the underlying population (see Chart 6).

The deceleration in defaults can also be seen in the trailing 12-month default rate (see Chart 7). Globally, the speculative-grade default rate has sunk to levels not seen since 1997. This phenomenon is mirrored in both the U.S. and European bond markets. The 12-month rolling speculative-grade default rate for the U.S. remains at its lowest level since June 1997, having reached 1.88% at the end of December. The trailing 12 month speculative grade default rate for Europe was 0.56%.

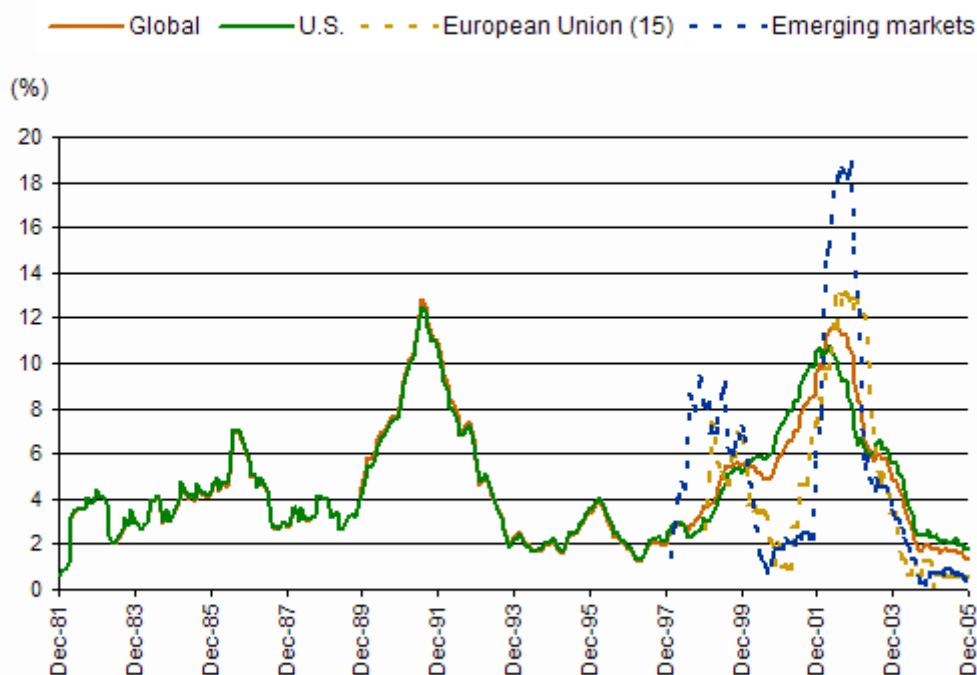
The global speculative-grade default rate is now a fraction of its long-term (1981-2005) average of 4.65%, but still slightly higher than the record low of 1.28% posted in April 1997. The U.S. speculative-grade default rate is also lower than its long-term (1981-2005) average of 4.70%. European speculative-grade default rates have remained very low with only one observed default in the trailing 12 months. Steep declines were also seen in the emerging markets, which recorded a 0.21% default rate at the end of 2005 versus 3.39% at the end of 2003 and 15.06% at the end of 2002. One emerging markets default has been observed in the trailing 12 months: Administracion Nacional de Combustibles Alcohol y Portland of Uruguay.



The growth in ratings penetration in the speculative-grade segment had no visible deleterious impact on the default rate, which continued to decrease relative to the peak in 2002, even though the proportion of issuers rated speculative grade showed no decline. This is true not only globally, but also at the regional level for the U.S. and Europe (see Charts 8, 9, and 10). The EU displays a flatter trend in the proportion of speculative-grade issuers compared with the U.S., but even

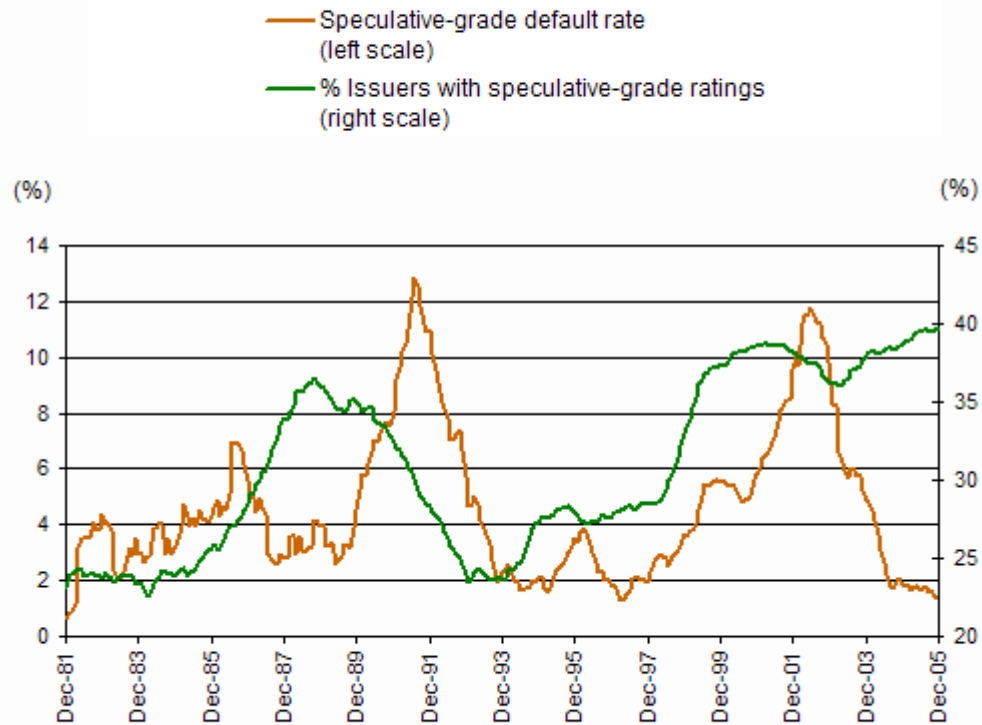
here there is no evidence of a decline (see Chart 10). Factors such as abundant liquidity, an accommodative monetary policy by major central banks (interest rates remain historically low notwithstanding a turnaround among central banks in certain regions, e.g., the U.S. and Canada), and a continued large appetite for risk among investors appear to have facilitated adequate financing opportunities to a growing universe of speculative-grade rated companies.

Chart 7

Trailing 12-Month Speculative-Grade Default Rate

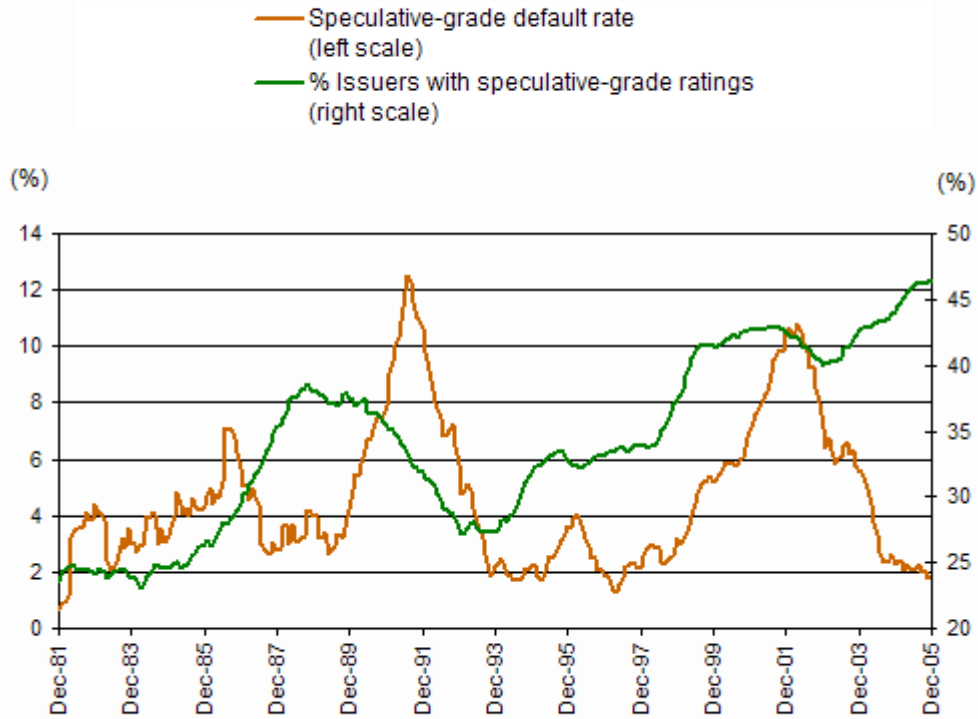
Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Chart 8

Global Speculative-Grade Default Rate Versus Credit Quality

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02

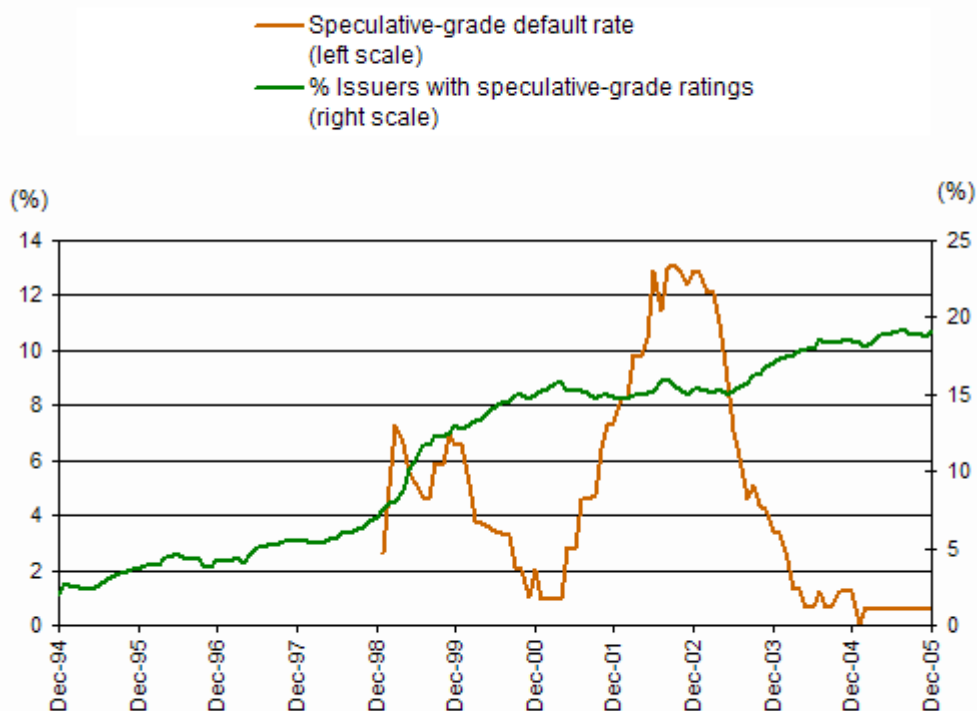
Chart 9

U.S. Speculative-Grade Default Rate Versus Credit Quality

Data for U.S. includes tax havens (Bermuda and Cayman Islands). Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Chart 10

European Union Speculative-Grade Default Rate Versus Credit Quality



European Union aggregate includes EU-15 countries only. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Analysis of the transition rates over the four quarters ended December 2005 suggests that ratings behavior continues to exhibit consistency with long-term trends, showing a clear negative correlation between credit quality and default probability. Table 8 demonstrates that investment grade rated issuers—globally as well as in the U.S. and Europe—tend to exhibit less ratings volatility than their speculative-grade counterparts. For instance, the probability that any issuer rated 'AA' at the beginning of this period (i.e., Jan. 1, 2005) will still be rated 'AA' at the end of this period (i.e., Dec. 31, 2005) is 90.66%, whereas the probability that an issuer rated 'B' will be rated 'B' at the end of the four quarters is only 70.59%. The same relationship holds even when the transition rates are analyzed separately for the U.S., Europe, or the emerging markets (see Table 8).

Table 8

2005 Transition Rates By Region (%)

From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
Global									
AAA	88.78	9.18	1.02	0.00	0.00	0.00	0.00	0.00	1.02
AA	0.00	90.66	4.91	0.49	0.00	0.00	0.00	0.00	3.93
A	0.08	1.63	88.89	4.41	0.00	0.00	0.00	0.00	4.98
BBB	0.00	0.20	5.93	84.04	3.06	0.46	0.00	0.07	6.25
BB	0.00	0.00	0.00	5.71	76.75	6.90	0.20	0.20	10.25
B	0.00	0.00	0.10	0.59	8.51	70.59	3.76	1.58	14.85
CCC/C	0.00	0.00	0.00	0.79	0.79	25.40	46.83	8.73	17.46

U.S.									
AAA	88.89	11.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	93.13	3.75	0.00	0.00	0.00	0.00	0.00	3.13
A	0.19	0.93	90.17	5.94	0.00	0.00	0.00	0.00	2.78
BBB	0.00	0.26	2.33	88.86	4.27	0.65	0.00	0.13	3.50
BB	0.00	0.00	0.00	3.59	78.28	8.98	0.36	0.36	8.44
B	0.00	0.00	0.14	0.29	5.58	72.39	4.72	2.15	14.74
CCC/C	0.00	0.00	0.00	1.33	0.00	18.67	50.67	10.67	18.67
European Union									
AAA	77.78	11.11	5.56	0.00	0.00	0.00	0.00	0.00	5.56
AA	0.00	81.95	9.77	1.50	0.00	0.00	0.00	0.00	6.77
A	0.00	2.49	85.08	3.59	0.00	0.00	0.00	0.00	8.84
BBB	0.00	0.40	7.26	79.44	2.42	0.81	0.00	0.00	9.68
BB	0.00	0.00	0.00	5.05	62.63	14.14	0.00	0.00	18.18
B	0.00	0.00	0.00	0.00	7.89	68.42	2.63	0.00	21.05
CCC/C	0.00	0.00	0.00	0.00	0.00	20.00	40.00	20.00	20.00
Emerging markets									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	87.50	12.50	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	4.00	92.00	1.33	0.00	0.00	0.00	0.00	2.67
BBB	0.00	0.00	13.68	78.30	0.47	0.00	0.00	0.00	7.55
BB	0.00	0.00	0.00	7.66	81.85	0.81	0.00	0.00	9.68
B	0.00	0.00	0.00	2.19	16.39	69.95	0.55	0.55	10.38
CCC/C	0.00	0.00	0.00	0.00	0.00	42.50	47.50	0.00	10.00

N.R.—Not rated. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 9

Global Average One-Year Transition Rates, 1981 - 2005 (%)									
From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	88.20	7.67	0.49	0.09	0.06	0.00	0.00	0.00	3.49
AA	0.58	87.16	7.63	0.58	0.06	0.11	0.02	0.01	3.85
A	0.05	1.90	87.24	5.59	0.42	0.15	0.03	0.04	4.58
BBB	0.02	0.16	3.85	84.13	4.27	0.76	0.17	0.27	6.37
BB	0.03	0.04	0.25	5.26	75.74	7.36	0.90	1.12	9.29
B	0.00	0.05	0.19	0.31	5.52	72.67	4.21	5.38	11.67
CCC/C	0.00	0.00	0.28	0.41	1.24	10.92	47.06	27.02	13.06

N.R.—Not rated. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

This pattern correlates with the long-term (1981-2005) trend of ratings behavior among all global rated issuers. This study—in line with previous default studies—confirms that companies to which Standard & Poor's assigns higher ratings are more stable than lower-rated companies. 'AAA' rated issuers were still rated 'AAA' one year later 88.20% of the time and 'CCC'/C' ratings remained 'CCC'/C' 47.06% of the time (see Table 9). These long-term relationships do not change even when default rates are broken out by region (see Table 10) or when entities that are not rated at some point during their rating history are removed from consideration (see Table 11).

Table 10

Average One-Year Transition Rates, 1981 - 2005 (%)									
From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
U.S.									
AAA	88.68	6.80	0.53	0.04	0.09	0.00	0.00	0.00	3.86
AA	0.60	87.14	7.39	0.67	0.07	0.15	0.03	0.01	3.94
A	0.06	1.86	87.14	5.70	0.50	0.18	0.04	0.05	4.46
BBB	0.02	0.17	3.76	84.09	4.55	0.77	0.13	0.28	6.23
BB	0.05	0.06	0.31	5.49	75.26	8.01	0.76	1.09	8.98
B	0.00	0.06	0.20	0.30	5.18	73.43	4.32	5.38	11.13
CCC/C	0.00	0.00	0.36	0.54	1.35	9.34	47.62	27.22	13.57
European Union									
AAA	87.32	8.99	0.64	0.16	0.00	0.00	0.00	0.00	2.89

AA	0.21	86.37	9.28	0.46	0.00	0.00	0.00	0.00	3.69
A	0.00	2.19	87.37	4.89	0.19	0.03	0.00	0.00	5.34
BBB	0.00	0.20	4.62	82.76	2.54	0.65	0.13	0.26	8.85
BB	0.00	0.00	0.00	3.04	72.68	8.43	0.51	0.67	14.67
B	0.00	0.00	0.26	0.51	5.91	63.75	4.88	4.88	19.79
CCC/C	0.00	0.00	0.00	0.00	0.00	13.51	29.73	51.35	5.41
Emerging markets									
AAA	90.91	2.27	0.00	0.00	0.00	0.00	0.00	0.00	6.82
AA	1.15	81.61	11.49	1.15	0.00	1.15	0.00	0.00	3.45
A	0.00	1.77	87.39	7.08	0.66	0.66	0.00	0.00	2.43
BBB	0.00	0.00	4.11	84.56	4.84	1.48	0.82	0.16	4.02
BB	0.00	0.00	0.07	4.35	79.54	4.15	2.11	1.63	8.16
B	0.00	0.00	0.10	0.39	8.11	70.90	3.22	4.88	12.40
CCC/C	0.00	0.00	0.00	0.00	0.82	18.78	49.80	20.82	9.80

N.R.—Not rated. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 11

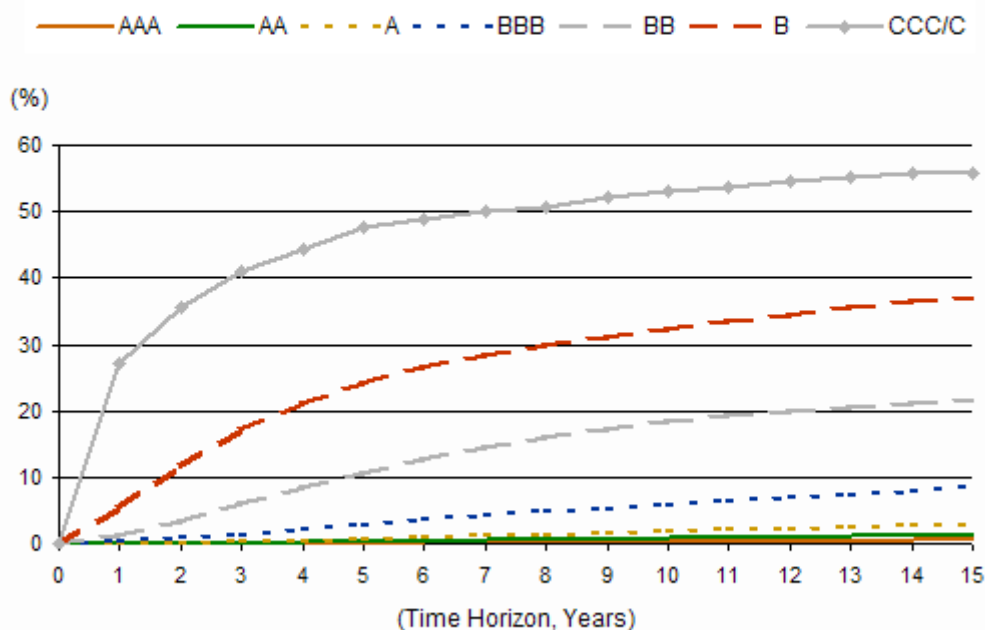
Average One-Year N.R.-Removed Transition Rates, 1981 - 2005 (%)								
From/To	AAA	AA	A	BBB	BB	B	CCC/C	D
AAA	91.42	7.92	0.51	0.09	0.06	0.00	0.00	0.00
AA	0.61	90.68	7.91	0.61	0.05	0.11	0.02	0.01
A	0.05	1.99	91.43	5.86	0.43	0.16	0.03	0.04
BBB	0.02	0.17	4.08	89.94	4.55	0.79	0.18	0.27
BB	0.04	0.05	0.27	5.79	83.61	8.06	0.99	1.20
B	0.00	0.06	0.22	0.35	6.21	82.49	4.76	5.91
CCC/C	0.00	0.00	0.32	0.48	1.45	12.63	54.71	30.41

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

All of Standard & Poor's default studies have found a clear correlation between credit quality and default remoteness: the higher the rating the lower the probability of default, and vice versa. Over each time span, lower ratings correspond to higher default rates (see Tables 12 and 13 and Chart 11). This property also holds true in each region worldwide (see Table 14).

Chart 11

Cumulative Average Default Rates By Rating, 1981 - 2005



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 12

Cumulative Average Default Rates, 1981 - 2005 (%)															
	--Time Horizon (Year)--														
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.00	0.00	0.03	0.06	0.10	0.17	0.24	0.36	0.40	0.44	0.44	0.44	0.44	0.51	0.58
AA	0.01	0.04	0.09	0.19	0.29	0.40	0.52	0.62	0.71	0.81	0.91	1.01	1.12	1.22	1.28
A	0.04	0.12	0.23	0.38	0.59	0.81	1.06	1.29	1.55	1.83	2.06	2.26	2.44	2.60	2.85
BBB	0.27	0.76	1.32	2.06	2.83	3.56	4.15	4.76	5.27	5.82	6.37	6.80	7.29	7.77	8.32
BB	1.12	3.33	5.96	8.45	10.65	12.77	14.45	15.90	17.26	18.29	19.25	19.97	20.62	21.05	21.58
B	5.38	11.80	17.14	21.24	24.16	26.45	28.37	29.91	31.15	32.38	33.48	34.44	35.44	36.34	37.18
CCC/C	27.02	35.63	40.93	44.39	47.56	48.78	49.98	50.64	52.17	53.05	53.79	54.57	55.19	55.90	55.90
Investment grade	0.11	0.31	0.54	0.85	1.18	1.51	1.81	2.10	2.37	2.65	2.91	3.12	3.34	3.55	3.81
Speculative grade	4.65	9.22	13.28	16.59	19.18	21.33	23.11	24.55	25.86	26.99	28.01	28.86	29.69	30.38	31.04
All rated	1.61	3.21	4.66	5.90	6.92	7.80	8.52	9.14	9.70	10.22	10.69	11.08	11.47	11.83	12.20

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 13

N.R.-Removed Cumulative Average Default Rates, 1981 - 2005 (%)

Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.00	0.00	0.03	0.07	0.11	0.20	0.30	0.47	0.53	0.60	0.60	0.60	0.60	0.60	0.60
AA	0.01	0.03	0.08	0.16	0.25	0.38	0.54	0.68	0.79	0.92	1.03	1.16	1.28	1.40	1.50
A	0.04	0.13	0.25	0.42	0.64	0.86	1.11	1.34	1.62	1.90	2.11	2.29	2.48	2.63	2.91
BBB	0.27	0.81	1.40	2.25	3.11	3.97	4.67	5.35	5.93	6.63	7.34	7.96	8.68	9.52	10.29
BB	1.20	3.71	6.86	9.94	12.74	15.57	18.02	20.27	22.39	24.04	25.66	27.00	28.09	28.85	29.93
B	5.91	13.60	20.55	26.23	30.48	34.01	37.23	40.15	42.36	44.75	46.82	48.49	50.25	52.15	53.72
CCC/C	30.41	40.02	46.13	50.55	56.04	58.53	59.63	60.43	64.38	67.72	67.72	67.72	67.72	69.19	69.19
Investment grade	0.11	0.32	0.56	0.89	1.24	1.59	1.91	2.22	2.50	2.81	3.08	3.32	3.57	3.84	4.14
Speculative grade	5.05	10.32	15.33	19.61	23.12	26.20	28.90	31.34	33.50	35.46	37.17	38.57	39.86	41.13	42.35
All rated	1.67	3.36	4.91	6.24	7.34	8.28	9.07	9.76	10.36	10.92	11.40	11.80	12.19	12.58	12.98

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02

The only exceptions occur when the number of defaults is very small, for example, among the higher rating categories at the rating modifier level (see Table 15). Issuers in investment-grade rating categories seldom default, so the number of defaults among these rating categories is very low. This small sample size can result in historical default rates that are counterintuitive. This does not imply, for example, that 'A+' rated companies are more risky than 'A' rated companies, but rather that both are very remote from default.

For additional detail on transition rates, please refer to tables in Appendix I.

Table 14

Cumulative Average Default Rates By Geographic Region, 1981 - 2005 (%)															
	--Time Horizon (Year)--														
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
U.S.															
AAA	0.00	0.00	0.00	0.00	0.00	0.05	0.11	0.23	0.29	0.35	0.35	0.35	0.35	0.45	0.55
AA	0.01	0.03	0.09	0.18	0.28	0.40	0.53	0.62	0.68	0.77	0.84	0.91	0.99	1.05	1.12
A	0.05	0.16	0.30	0.47	0.68	0.92	1.19	1.45	1.75	2.06	2.30	2.50	2.68	2.85	3.10
BBB	0.28	0.72	1.19	1.89	2.62	3.35	3.96	4.59	5.14	5.73	6.31	6.75	7.24	7.74	8.30
BB	1.09	3.22	5.81	8.22	10.29	12.37	14.01	15.44	16.81	17.87	18.86	19.61	20.27	20.72	21.25
B	5.38	11.83	17.25	21.38	24.29	26.74	28.83	30.23	31.44	32.65	33.76	34.73	35.56	36.37	37.49
CCC/C	27.22	37.02	42.42	46.84	50.75	54.13	57.02	59.53	61.85	63.95	65.86	67.57	69.15	70.58	71.84
Investment grade	0.12	0.32	0.54	0.85	1.19	1.55	1.87	2.19	2.49	2.81	3.09	3.31	3.54	3.76	4.04
Speculative grade	4.70	9.39	13.56	16.90	19.52	21.67	23.44	24.88	26.19	27.31	28.35	29.29	30.13	30.86	31.42
All rated	1.75	3.53	5.11	6.45	7.54	8.49	9.28	9.95	10.57	11.11	11.65	12.06	12.47	12.84	13.24
	--Time Horizon (Year)--														
Rating	1	2	3	4	5	6	7								
European Union															
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
AA	0.00	0.06	0.11	0.24	0.39	0.55	0.64								
A	0.00	0.00	0.04	0.14	0.30	0.44	0.68								
BBB	0.26	0.57	1.05	1.17	1.17	1.17	1.17								
BB	0.67	2.30	4.08	5.09	6.88	8.06	8.88								
B	4.88	13.30	18.69	20.27	20.95	22.77	25.86								
CCC/C	51.35	51.35	51.35	51.35	51.35	51.35	51.35								
Investment grade	0.06	0.13	0.25	0.35	0.47	0.58	0.70								
Speculative grade	4.12	8.21	11.25	12.44	13.75	15.13	16.65								
All rated	0.56	1.09	1.51	1.71	1.92	2.12	2.33								
	--Time Horizon (Year)--														
Rating	1	2	3	4	5										
Emerging Markets															
AAA	0.00	0.00	0.00	0.00	0.00										
AA	0.00	0.00	0.00	0.00	0.00										
A	0.00	0.00	0.00	0.00	0.00										
BBB	0.16	1.56	3.51	6.21	8.99										
BB	1.63	5.16	9.01	13.07	16.56										
B	4.88	9.57	13.14	16.74	18.46										
CCC/C	20.82	23.39	25.50	26.56	28.12										

Investment grade 0.11 1.04 2.33 4.08 5.85

Speculative grade 4.56 8.43 12.04 15.71 18.48

All rated 2.80 5.49 8.15 10.99 13.30

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 15

Cumulative Average Default Rates By Rating Modifier, 1981 - 2005 (%)															
Rating	--Time Horizon (Year)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.00	0.00	0.03	0.06	0.10	0.17	0.24	0.36	0.40	0.44	0.44	0.44	0.44	0.51	0.58
AA+	0.00	0.00	0.00	0.07	0.15	0.24	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
AA	0.00	0.00	0.00	0.07	0.15	0.22	0.34	0.48	0.61	0.74	0.85	0.92	1.08	1.17	1.22
AA-	0.02	0.10	0.23	0.36	0.51	0.67	0.81	0.89	0.97	1.07	1.17	1.36	1.43	1.59	1.69
A+	0.05	0.11	0.26	0.47	0.63	0.80	0.98	1.16	1.38	1.60	1.83	2.11	2.36	2.64	2.89
A	0.04	0.12	0.17	0.25	0.42	0.63	0.84	1.09	1.36	1.72	2.02	2.18	2.36	2.46	2.74
A-	0.04	0.15	0.30	0.50	0.80	1.11	1.50	1.73	2.03	2.25	2.35	2.51	2.63	2.77	2.92
BBB+	0.20	0.58	1.11	1.57	2.08	2.63	3.07	3.46	3.90	4.25	4.59	4.85	5.28	5.92	6.64
BBB	0.28	0.60	0.91	1.56	2.24	2.87	3.43	4.11	4.67	5.33	6.06	6.54	7.08	7.26	7.65
BBB-	0.36	1.19	2.11	3.34	4.52	5.60	6.42	7.18	7.73	8.36	8.87	9.44	9.90	10.73	11.33
BB+	0.59	1.62	3.35	4.94	6.29	7.62	8.88	9.41	10.43	11.20	11.75	12.24	12.67	13.14	14.02
BB	0.87	2.78	5.14	7.32	9.43	11.56	13.20	14.69	15.86	16.81	17.87	18.71	19.08	19.18	19.29
BB-	1.62	4.77	8.14	11.39	14.16	16.71	18.68	20.61	22.31	23.57	24.66	25.42	26.42	27.11	27.77
B+	2.86	7.99	12.85	16.96	19.93	22.19	24.26	26.00	27.46	28.97	30.24	31.31	32.44	33.57	34.51
B	7.78	15.61	21.24	25.20	27.91	30.26	31.79	32.98	33.95	34.93	35.92	36.91	37.99	38.72	39.62
B-	11.22	20.45	27.46	31.92	35.14	37.59	39.66	40.97	41.76	42.27	42.83	43.24	43.46	43.70	43.95
CCC/C	27.02	35.63	40.93	44.39	47.56	48.78	49.98	50.64	52.17	53.05	53.79	54.57	55.19	55.90	55.90
Investment grade	0.11	0.31	0.54	0.85	1.18	1.51	1.81	2.10	2.37	2.65	2.91	3.12	3.34	3.55	3.81
Speculative grade	4.65	9.22	13.28	16.59	19.18	21.33	23.11	24.55	25.86	26.99	28.01	28.86	29.69	30.38	31.04
All rated	1.61	3.21	4.66	5.90	6.92	7.80	8.52	9.14	9.70	10.22	10.69	11.08	11.47	11.83	12.20

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

A quantitative measure of ratings performance—the historical ability of ratings to predict default—for corporate entities rated by Standard & Poor's is displayed in the charts below. In order to measure ratings performance or ratings accuracy, the cumulative share of issuers by rating is plotted against the cumulative share of defaulters in a Lorenz curve to show visually the accuracy of its rank ordering (for definition and methodology, refer to Appendix II at the end of the report). The results are shown in Charts 12 through 15. Over the long term, the global average one-year transition to default shows a one-year Gini coefficient of 84%; a three-year of 78%; a five-year of 75%; and a seven-year of 72%.

Table 16

Gini Coefficients By Region (1981-2005)				
Region	--Time Horizon (Year)--			
	1	2	3	4
Global	84	78	75	72
U.S.	82	77	74	71
Europe	94	89	84	74

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

The variation in Gini coefficients by region is displayed in Table 16. As expected, the Gini coefficients decline over time because longer time horizons allow greater opportunity for credit degradation among higher-rated entities. In the one-year global Lorenz curve, for example, 95.4% of defaults occurred in the speculative grade category ('BB+' or lower), while ratings of 'BB+' or lower constituted only 32.9% of all corporate ratings (see Chart 12). Looking at the seven-year Lorenz curve, speculative-grade issuers constituted 85.0% of defaulters and only 29.5% of the entire sample. If the rank ordering of ratings had little predictive value, the cumulative share of defaulting corporate entities and the cumulative share of all entities would be nearly the same.

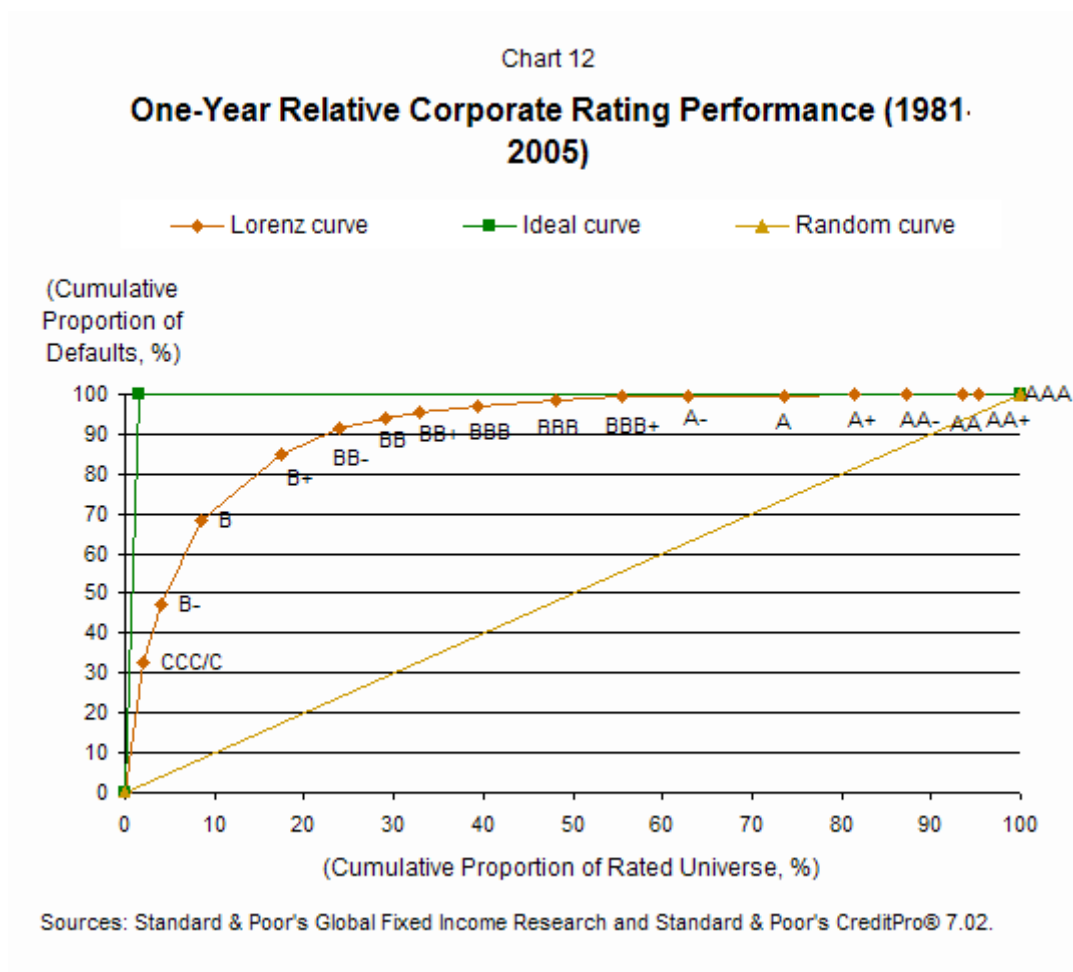
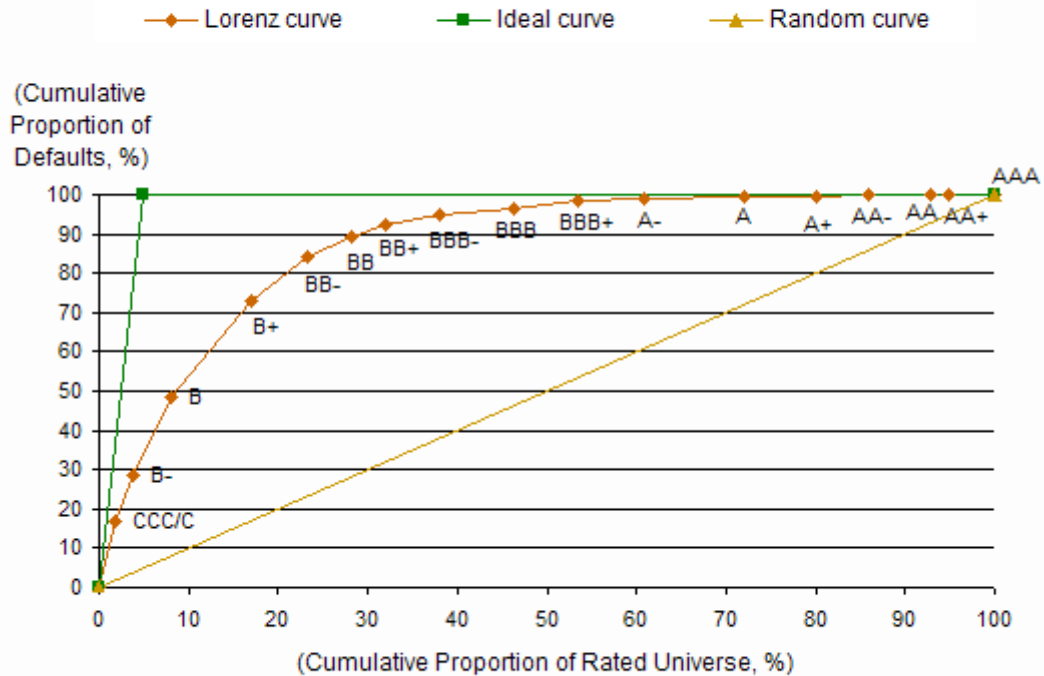


Chart 13

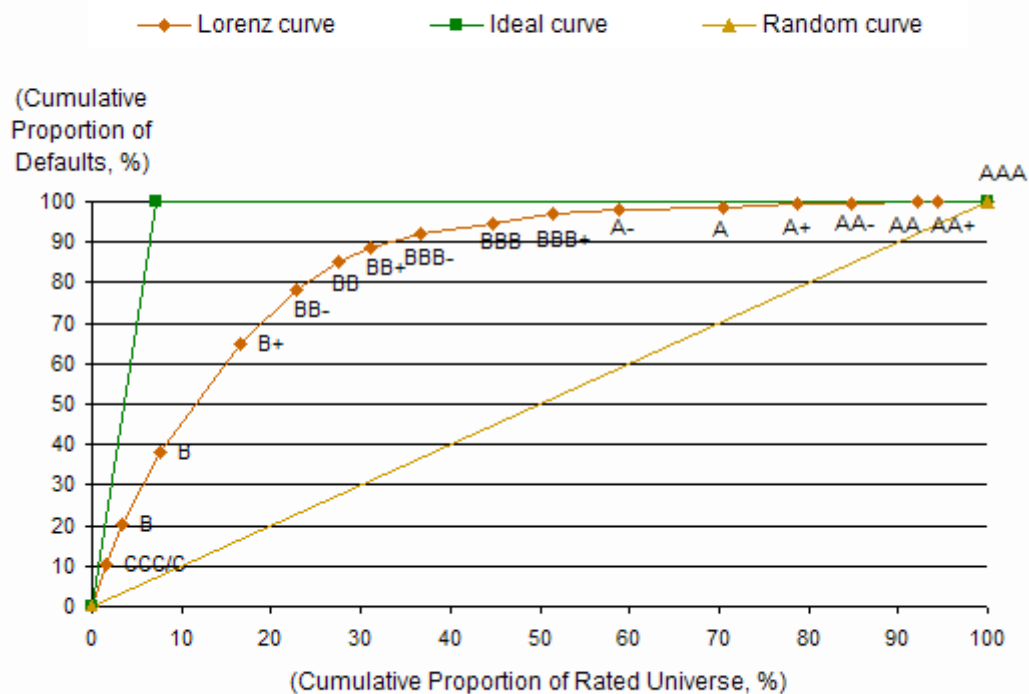
Three-Year Relative Corporate Rating Performance (1981-2005)



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Chart 14

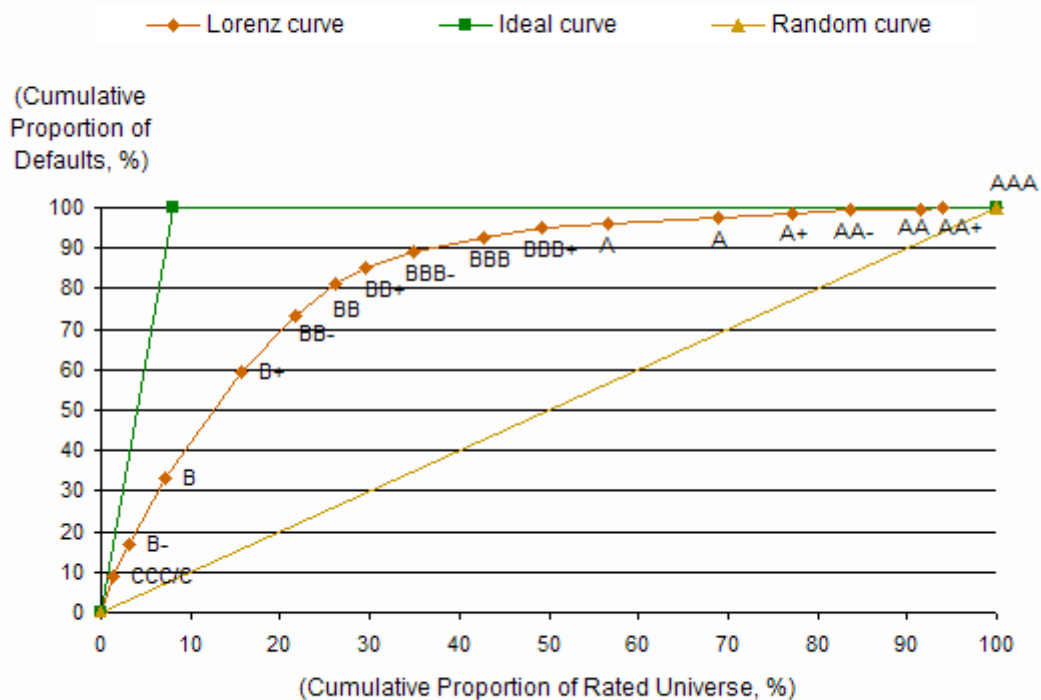
Five-Year Relative Corporate Rating Performance (1981-2005)



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

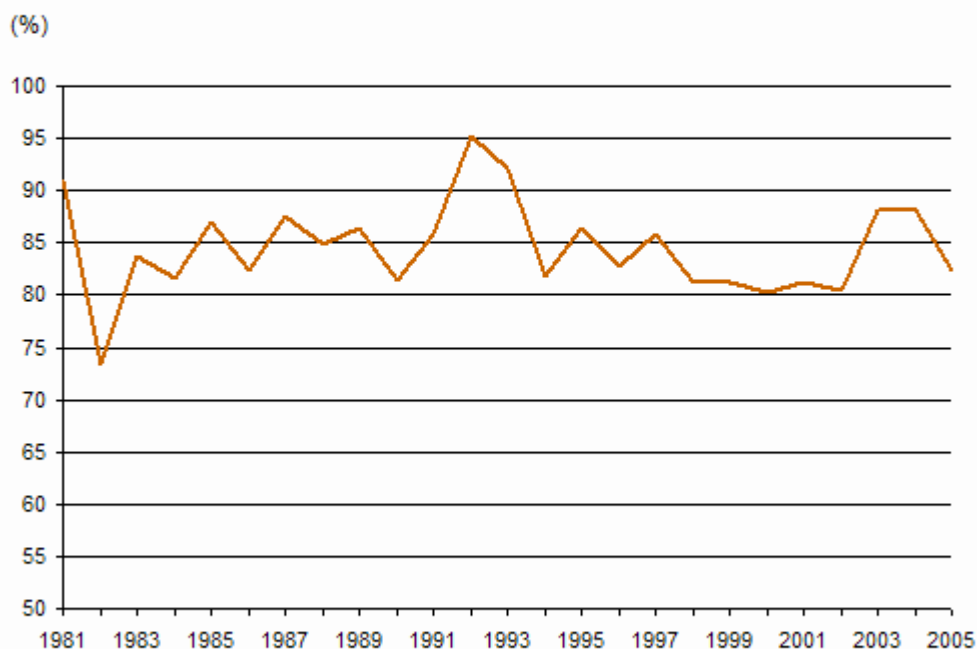
Chart 15

Seven-Year Relative Corporate Rating Performance (1981-2005)



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Chart 16

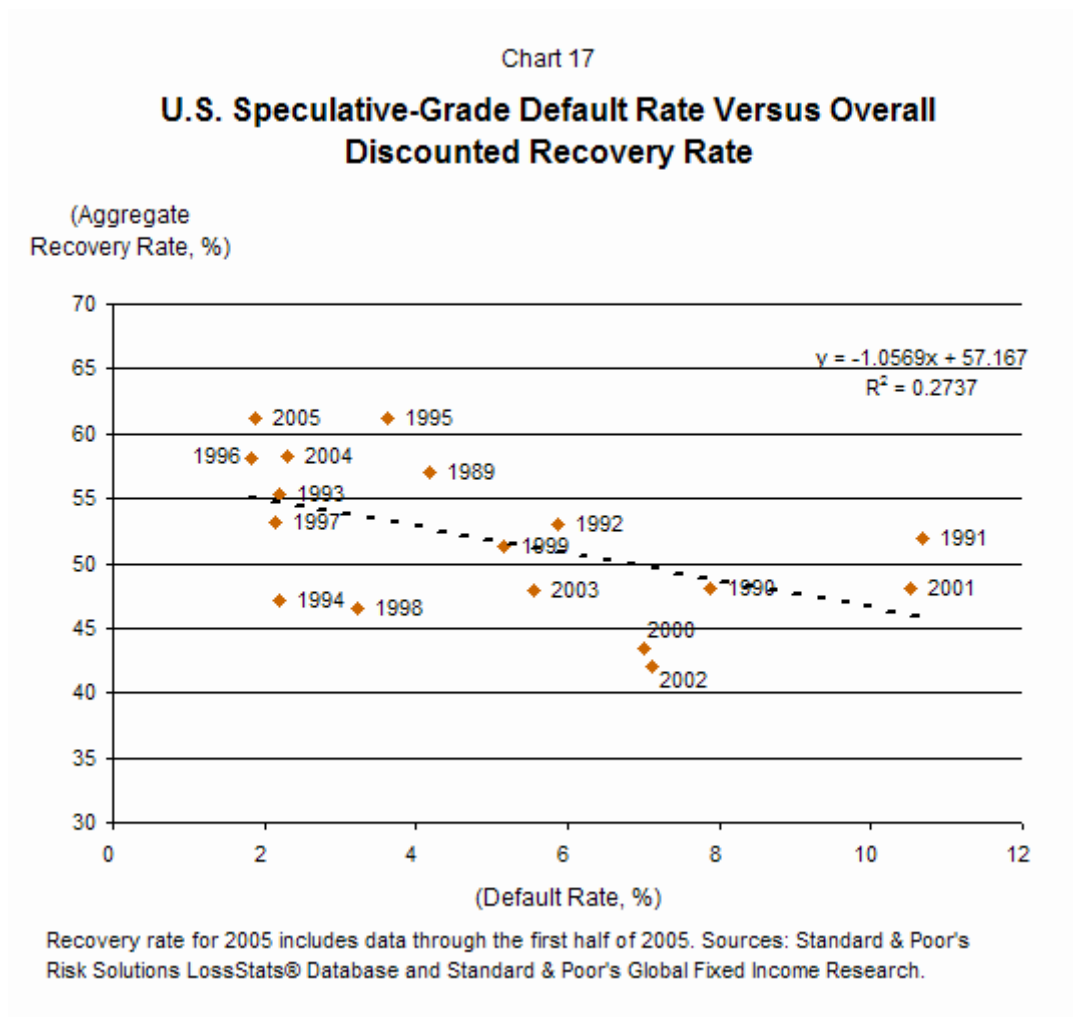
Global One-Year Gini Coefficients

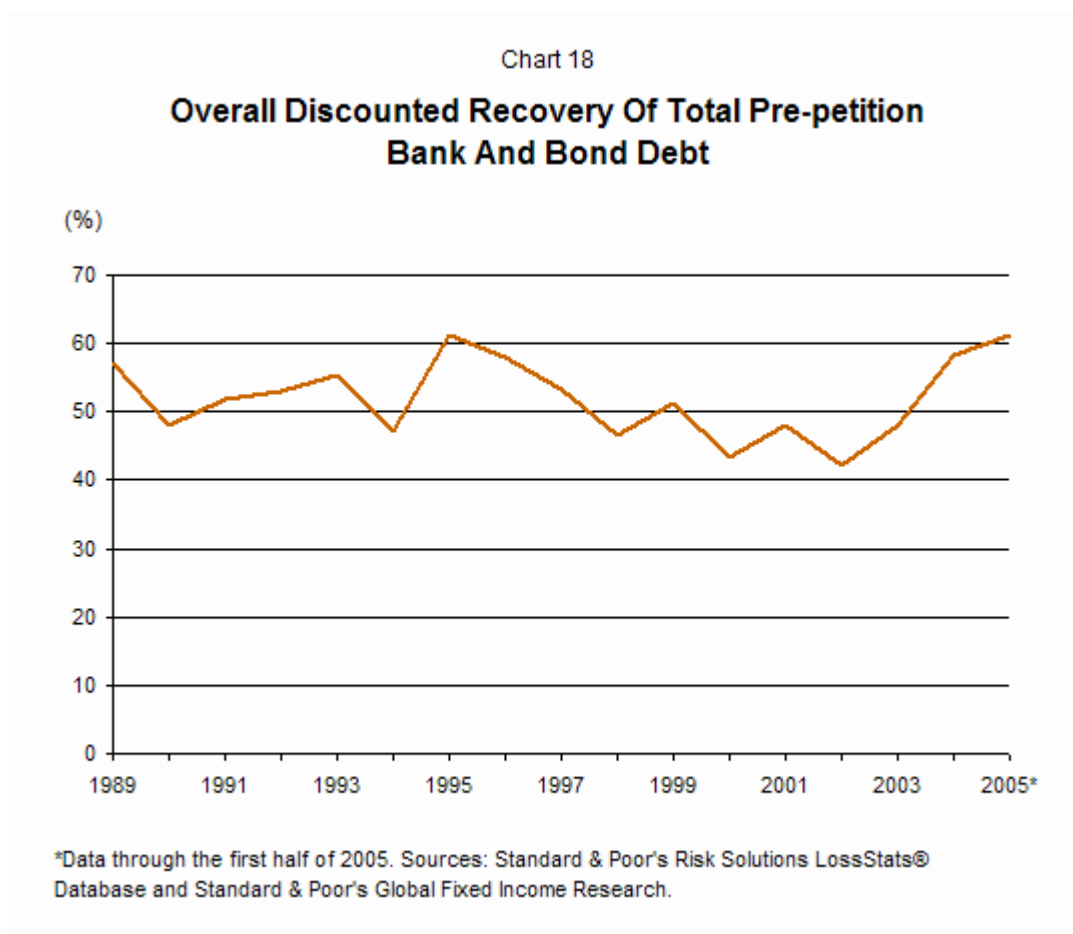
Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

The pattern of one-year Gini coefficients appears to be broadly cyclical (see Chart 16). Trends in the one-year Gini ratio emerge during periods of both extremes in default pressure, which is a reflection of the natural relationship between the two concepts. In periods of high defaults, there tends to be greater variation with respect to how the defaults are distributed across the ratings spectrum, which reduces the Gini. That is, when default pressure is high, the economic conditions are such that there is an increased likelihood of companies suffering a more rapid deterioration of credit quality.

Standard & Poor's issuer credit ratings are current opinions of an obligor's overall financial capacity (its creditworthiness) to pay its financial obligations. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they become due. It does not apply to any specific financial obligation, as it does not take into account the nature and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation. Even though Standard & Poor's ratings are not explicitly a comment on recovery prospects, an investigation of the relationship between the two concepts offers some valuable insight. Recovery in this case is defined as ultimate recovery rates following emergence from three types of default: bankruptcy filings, distressed exchanges, and defaults cured outside the grace period (30 days in the U.S.). This measure is believed to be a more accurate measure of value than the post-default trading price, which is subject to greater liquidity-related price impairment and less certainty about recovery prospects. In addition, the relationship between default rates and recovery rates broadly corresponds with expectations, and has been ably documented in academic literature. One interpretation of the inverse relationship between default rates and recovery rates is offered by Altman, Resti, and Sironi (2003), who suggest that economic conditions that cause defaults to rise may cause recovery rates to decline. Data for the

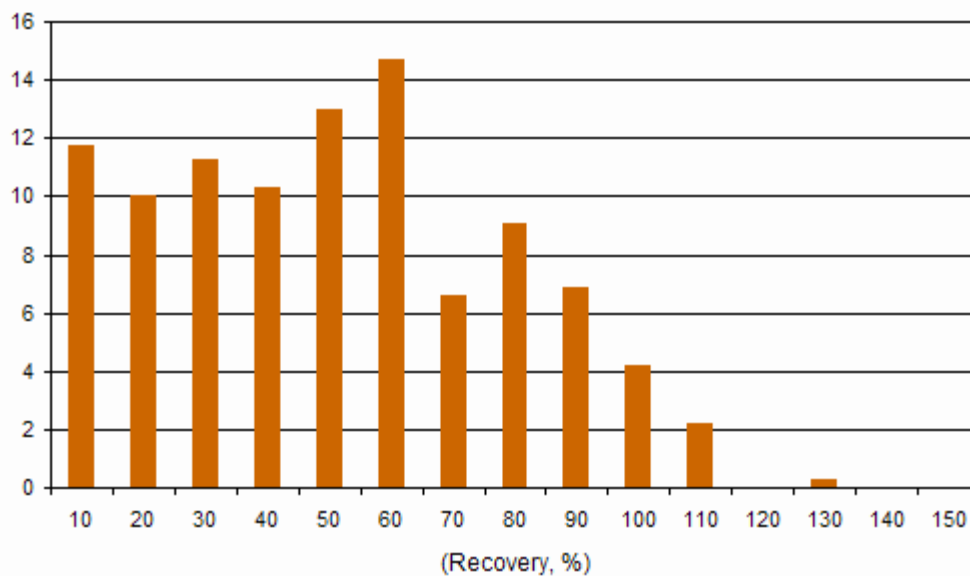
U.S. indicate that speculative-grade default rates and recovery rates are inversely correlated (see Chart 17). In other words, recovery rates tend to be low in years characterized by high defaults and vice versa.





In the present climate of low default rates, compressed spreads, and relatively easy access to capital, overall recovery rates are as high as they have been over the past 10 years (see Chart 18). In order to manage expectations for future recovery, it may be helpful to understand how recovery rates are distributed conditioned on ratings before default. Indeed, as we might have suspected, issuers that were rated investment grade one year prior to default have greater likelihood of high recovery than do those issuers that were rated speculative grade one year prior to their default. The median recovery for investment grade issuers over the period from 1987 to mid-2005 was 68%, while the median recovery for speculative grade issuers over the same period was 45% (see Charts 19 and 20). Still, investors need to weigh the implications of the securities' relative position in the capital structure since recovery experience varies greatly by level of seniority (see Table 17). Variations in ultimate recovery are also visible by industry, with the utility sector posting the highest recovery rates in the period since 2000 (see Chart 21).

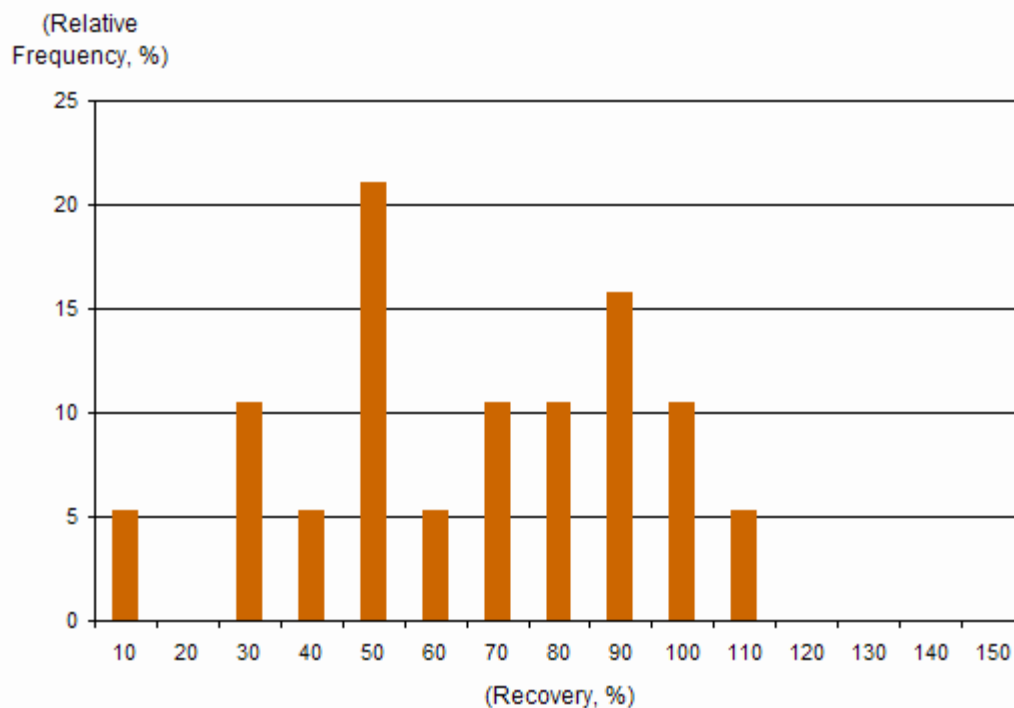
Chart 19

Recovery Rate Histogram For Speculative-Grade Issuers(Relative
Frequency, %)

Recovery bins are greater than or equal to the lower bound and strictly less than the upperbound; each bin is labeled with its upperbound. This histogram is based on the recovery experience of 409 issuers that defaulted from 1987 to mid-2005 and had speculative-grade ratings one year prior to default. Sources: Standard & Poor's Risk Solutions LossStats® Database and Standard & Poor's Global Fixed Income Research.

Chart 20

Recovery Rate Histogram For Investment-Grade Issuers



Recovery bins are greater than or equal to the lower bound and strictly less than the upperbound; each bin is labeled with its upperbound. This histogram is based on the recovery experience of 19 issuers that defaulted from 1987 to mid-2005 and had investment-grade ratings one year prior to default. Sources: Standard & Poor's Risk Solutions LossStats® Database and Standard & Poor's Global Fixed Income Research.

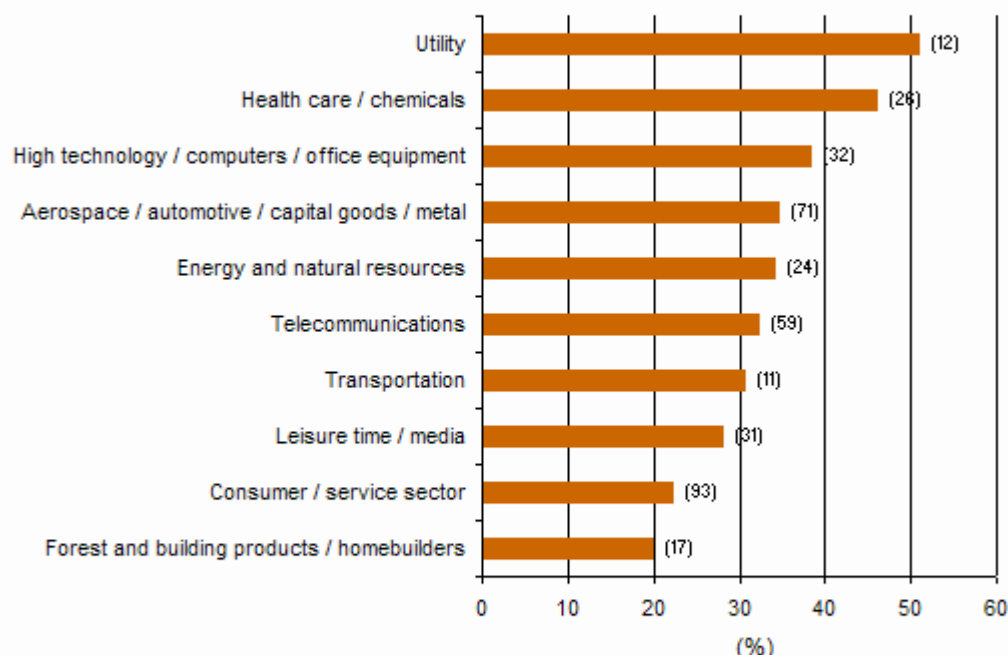
Table 17

Ultimate Recovery Rates By Asset Class (%)

Ultimate Recovery Rates			
	Recovery	Standard Deviation	Observations
Bank debt	77.5	30.9	1,204
Senior secured bonds	62.0	33.3	301
Senior unsecured bonds	42.6	34.8	769
Senior subordinated bonds	30.3	33.3	469
Subordinated bonds	29.2	34.2	394
Junior subordinated bonds	19.1	30.6	49

Recoveries are discounted at each instrument's pre-default interest rate. Source: Standard & Poor's Risk Solutions LossStats® Database.

Chart 21
Recovery Rates Since 2000



Recovery rates are calculated by taking the dollar-weighted average discounted recovery for entities that emerged from default from 2000 to mid-2005. Numbers in parentheses are the number of emergencies making up the aggregate recovery rate. Sources: Standard & Poor's Risk Solutions LossStats® Database and Standard & Poor's Global Fixed Income Research.

Appendix I: Default Methodology And Definitions

This long-term corporate default and rating transition study uses the CreditPro® 7.02 database of long-term local currency issuer credit ratings. An issuer credit rating reflects Standard & Poor's opinion of a company's overall capacity to pay its obligations (that is, its fundamental creditworthiness). This opinion focuses on the obligor's ability and willingness to meet its financial commitments on a timely basis, and it generally indicates the likelihood of default regarding all financial obligations of the firm. It is not necessary for a company to have rated debt in order to be assigned an issuer credit rating.

Although the rating on a company's very senior forms of secured debt, particularly ones with strong covenants, may occasionally be rated higher than the issuer credit rating on the company, specific issues are typically rated as high or lower than these ratings, depending on their relative priority within the company's debt structure. If they are speculative grade, issuer credit ratings are generally two notches higher than subordinated debt ratings. Otherwise, they are generally one notch higher. Therefore, though a 'BB+' issuer credit rating is paired with a 'BB-' subordinated debt rating, a 'AA' issuer credit rating corresponds to a 'AA-' subordinated rating.

Standard & Poor's ongoing enhancement of the CreditPro database used to generate this study may lead to outcomes that differ to some degree from those reported in previous studies.

However, this poses no continuity problem because each study reports statistics back to Dec. 31, 1980. Therefore, each annual default study is self-contained and effectively supersedes all previous versions.

Issuers included in this study

The study analyzed the rating histories of 11,605 companies that were rated by Standard & Poor's as of Dec. 31, 1980, or that were first rated between that date and Dec. 31, 2005. These companies include industrials, utilities, financial institutions, and insurance companies around the world with long-term local currency ratings. The analysis excludes public information (pi) ratings and ratings based on the guarantee of another company. Structured finance vehicles, public-sector issuers, and sovereign issuers are the subject of separate default and transition studies and are also excluded from this study. Appendix III in this study offers comparisons and key distinctions in rating transitions and defaults among corporate and structured finance asset classes.

Subsidiaries whose debt is fully guaranteed by a parent or whose default risk is considered identical to that of their parents were excluded. The latter are companies whose obligations are not legally guaranteed by a parent but whose operating or financing activities are so inextricably entwined with those of the parent that it would be impossible to imagine the default of one and not the other. At times, however, some of these subsidiaries might not yet have been covered by a parent's guarantee, or the relationship that combines the default risk of parent and child might have come to an end, or might not have begun. Such subsidiaries were included for the period during which they carried a distinct and separate risk of default.

Definition of default

A default is recorded on the first occurrence of a payment default on any financial obligation, rated or unrated, other than a financial obligation subject to a bona fide commercial dispute; an exception occurs when an interest payment missed on the due date is made within the grace period. Preferred stock is not considered a financial obligation; thus, a missed preferred stock dividend is not normally equated with default. Distressed exchanges, on the other hand, are considered defaults whenever the debt holders are coerced into accepting substitute instruments with lower coupons, longer maturities, or any other diminished financial terms.

Issue ratings are usually lowered to 'D' following a company's default on the corresponding obligation. In addition, 'SD' is used whenever Standard & Poor's believes that an obligor that has selectively defaulted on a specific issue or class of obligations will continue to meet its payment obligations on other issues or classes of obligations in a timely matter. 'R' indicates that an obligor is under regulatory supervision owing to its financial condition. This does not necessarily indicate a default event, but the regulator may have the power to favor one class of obligations over others or pay some obligations and not others. 'D', 'SD', and 'R' issuer ratings are deemed defaults for purposes of this study. A default is assumed to take place on the earliest of: the date Standard & Poor's revised the ratings to 'D', 'SD', or 'R'; the date a debt payment was missed; the date a distressed exchange offer was announced; or the date the debtor filed or was forced into bankruptcy.

Calculations

Static pool methodology. Standard & Poor's conducts its default studies on the basis of groupings called static pools. Static pools are formed by grouping issuers by rating category at the beginning of each year covered by the study. Each static pool is followed from that point forward. All companies included in the study are assigned to one or more static pools. When an issuer defaults, that default is assigned back to all of the static pools to which the issuer belonged.

calculated across multi-period time horizons. Some methods for calculating default and rating transition rates might charge defaults against only the initial rating on the issuer—ignoring more recent rating changes that supply more current information. Other methods may calculate default rates using only the most recent year's default and rating data—this method may yield comparatively low default rates during periods of high rating activity, as they ignore prior years' default activity.

The pools are static in the sense that their membership remains constant over time. Each static pool can be interpreted as a buy and hold portfolio. Because errors, if any, are corrected by every new update, and because the criteria for inclusion or exclusion of companies in the default study are subject to minor revisions as time goes by, it is not possible to compare static pools across different studies. Therefore, every new update revises results back to the same starting date of Dec. 31, 1980, so as to avoid continuity problems. Table 18 lays out the summary of annual rating changes for each static pool beginning with 1981 and ending in 2005.

Entities that have had ratings withdrawn—that is, revised to N.R.—are surveilled with the aim of capturing a potential default. These companies, as well as those that have defaulted, are excluded from subsequent static pools.

Table 18

Summary Of Annual Rating Changes* (%)								
Year	Issuers as of Jan. 1	Upgrades	Downgrades [¶]	Defaults	Withdrawn Ratings	Changed Ratings	Unchanged Ratings	Downgrade / Upgrade Ratio
1981	1,392	9.84	13.15	0.14	2.01	25.14	74.86	1.34
1982	1,440	5.83	12.71	1.18	5.28	25.00	75.00	2.18
1983	1,464	7.10	11.75	0.75	5.19	24.80	75.20	1.65
1984	1,552	11.08	9.99	0.90	3.03	25.00	75.00	0.90
1985	1,636	7.82	13.69	1.10	4.03	26.65	73.35	1.75
1986	1,870	7.17	15.94	1.71	6.84	31.66	68.34	2.22
1987	2,021	7.08	11.78	0.94	9.30	29.09	70.91	1.66
1988	2,109	8.87	11.76	1.42	8.20	30.25	69.75	1.33
1989	2,153	9.48	10.92	1.67	7.99	30.05	69.95	1.15
1990	2,141	6.12	15.18	2.71	6.54	30.55	69.45	2.48
1991	2,086	6.04	14.00	3.26	3.50	26.80	73.20	2.32
1992	2,186	9.24	11.62	1.37	4.16	26.40	73.60	1.26
1993	2,385	8.30	9.18	0.55	8.55	26.58	73.42	1.11
1994	2,633	6.84	9.38	0.61	4.71	21.53	78.47	1.37
1995	2,976	8.77	9.21	1.01	4.50	23.49	76.51	1.05
1996	3,233	9.22	7.24	0.49	7.08	24.03	75.97	0.79
1997	3,568	8.72	7.76	0.62	8.52	25.62	74.38	0.89
1998	4,052	7.13	11.45	1.31	8.22	28.11	71.89	1.61
1999	4,464	5.40	11.18	2.15	8.92	27.64	72.36	2.07
2000	4,617	6.71	11.74	2.36	6.58	27.40	72.60	1.75
2001	4,735	5.55	15.31	3.78	7.16	31.81	68.19	2.76
2002	4,776	5.13	18.55	3.60	6.51	33.79	66.21	3.62
2003	4,837	6.37	13.98	1.92	7.40	29.67	70.33	2.19
2004	5,072	8.46	7.22	0.73	7.18	23.58	76.42	0.85
2005	5,416	12.26	9.05	0.55	8.33	30.19	69.81	0.74
Weighted average		7.68	11.64	1.61	6.83	27.76	72.24	1.51

*This table compares the net change in ratings from the first to the last day of each year. All intermediate ratings are disregarded. †Excludes downgrades to 'D', shown separately in the default column. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

For instance, the 1981 static pool consists of all companies rated as of 12:01 a.m. Jan. 1, 1981. Adding those companies first rated in 1981 to the surviving members of the 1981 static pool forms the 1982 static pool. All rating changes that took place are reflected in the newly formed 1982 static pool. This same method was used to form static pools for 1983 through 2005. From Jan. 1, 1981 to Dec. 31, 2005, a total of 10,213 first-time rated organizations were added to form new static pools (see Table 19), while 1,470 defaulting companies and 4,497 companies classified as N.R. were excluded from them.

Consider the following example: An issuer is originally rated 'BB' in mid-1986 and is downgraded to 'B' in 1988. This is followed by a rating withdrawal (N.R.) in 1990, and a default ('D') in 1993. This hypothetical company would be included in the 1987 and 1988 pools with the 'BB' rating, which it was rated at the beginning of those years; likewise, it would be included in the 1989 and 1990 pools with the 'B' rating. It would not be part of the 1986 pool because it was not rated as of the first day of that year, and it would not be included in any pool after the last day of 1990 because the rating had been withdrawn by then. Yet each of the four pools in which this company was included, 1987 to 1990, would record its 1993 default at the appropriate time horizon.

Table 19

Rating Classification Of New Issuers*										
--First Rating--										
Year	AAA	AA	A	BBB	BB	B	CCC/C	Total	% Investment Grade	% Speculative Grade
1981	5	9	19	11	13	21	1	79	55.70	44.30
1982	17	20	31	16	14	18	1	117	71.79	28.21
1983	28	30	28	26	27	29	5	173	64.74	35.26
1984	10	17	30	16	29	35	2	139	52.52	47.48
1985	27	60	66	31	43	80	2	309	59.55	40.45
1986	28	19	40	26	53	125	10	301	37.54	62.46
1987	18	33	36	26	56	110	10	289	39.10	60.90
1988	22	41	33	32	31	69	10	238	53.78	46.22
1989	8	38	36	17	31	55	5	190	52.11	47.89
1990	19	36	32	15	11	14	8	135	75.56	24.44
1991	28	75	68	27	20	5	8	231	85.71	14.29
1992	15	52	59	55	59	53	5	298	60.74	39.26
1993	12	40	75	70	95	138	3	433	45.50	54.50
1994	22	37	131	82	72	115	3	462	58.87	41.13
1995	8	33	85	110	68	90	4	398	59.30	40.70
1996	11	43	101	133	127	134	2	551	52.27	47.73
1997	7	32	90	190	165	290	1	775	41.16	58.84
1998	5	52	101	132	185	287	7	769	37.71	62.29
1999	8	36	81	137	167	185	9	623	42.05	57.95
2000	6	29	91	127	100	141	13	507	49.90	50.10
2001	10	44	107	174	121	88	14	558	60.04	39.96
2002	4	20	71	126	165	144	19	549	40.26	59.74
2003	1	22	90	185	154	181	31	664	44.88	55.12
2004	8	20	101	144	140	281	33	727	37.55	62.45
2005	2	26	78	105	139	334	14	698	30.23	69.77

Total	329	864	1,680	2,013	2,085	3,022	220	10,213	47.84	52.16
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*Includes issuers that are assigned a new rating after default as well as those companies that are rated for the first time.

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Ratings are withdrawn when an entity's entire debt is paid off or when the program or programs rated are terminated and the relevant debt extinguished. They may also occur as a result of mergers and acquisitions. Others are withdrawn because of a lack of cooperation, particularly when a company is experiencing financial difficulties and refuses to provide all the information needed to continue surveillance on the ratings.

Default rate calculation. Annual default rates were calculated for each static pool: first in units, and later as percentages with respect to the number of issuers in each rating category. Finally, these percentages were combined to obtain cumulative default rates for the 25 years covered by the study (see Table 22).

Issuer-weighted default rates. Averages that appear in this study are calculated based on the number of issuers rather than the dollar amounts affected by defaults or rating changes. Although dollar amounts provide information about the portion of the market that is affected by defaults or rating changes, issuer-weighted averages are a more useful measure of the statistical performance of ratings.

Many practitioners utilize statistics from this default study and CreditPro® to estimate probability of default and probability of rating transition. It is important to note that Standard & Poor's ratings do not imply a specific probability of default; however, Standard & Poor's historical default rates are frequently used to estimate these characteristics. When estimating probability of default, issuer-weighted statistics have less variance than dollar-weighted statistics, and are therefore preferable.

To illustrate this point, assume that it is known that two issuers each have a 50% probability of default. (Again, Standard & Poor's credit ratings do not imply a specific probability of default.) Assume that one issuer has \$10 of principal outstanding while the other has \$90 of principal outstanding. If we estimate default probability using the issuer-weighted methodology, we have a 50% chance of estimating a 50% default probability (one of the two issuers defaults), a 25% chance of estimating a 0% default probability (neither defaults), and a 25% chance of estimating a 100% default probability (they both default). Therefore, the standard deviation of the issuer-weighted estimator is 12.5%. If we estimate default probability using the dollar-weighted methodology, we have a 25% chance, each, of estimating 0% (neither defaults), 10% (the \$10 issuer defaults), 90% (the \$90 issuer defaults), and 100% (both default). The standard deviation of the dollar-weighted estimator is 20.5%. This issuer-weighted estimator (12.5% standard deviation) is clearly preferable to the dollar-weighted estimator (20.5% standard deviation).

Cumulative average default rate calculation. Cumulative default rates that average the experience of all static pools were derived by calculating marginal default rates, conditional on survival (survivors being nondefaulters) for each possible time horizon and for each static pool, weight averaging the conditional marginal default rates, and accumulating the average conditional marginal default rates (see Tables 12, 13, 14, 15, and 22). Conditional default rates are calculated by dividing the number of issuers in a static pool that default at a specific time horizon by the number of issuers that survived (did not default) to that point in time. Weights are based on the number of issuers in each static pool. Cumulative default rates are one minus the product of the proportion of survivors (nondefaulters).

For instance, the weighted average first-year default rate for 'B' rated companies for all 25 pools was 5.38%, meaning that an average of 94.62% survived one year. Similarly, the second- and

year), respectively. Multiplying 94.62% by 93.22% results in an 88.20% survival rate to the end of the second year, or a two-year cumulative average default rate of 11.80%. Multiplying 88.20% by 93.95% results in an 82.86% survival rate to the end of the third year, or a three-year cumulative average default rate of 17.14%.

N.R.-removed default rates. A slightly different method is used to obtain N.R.-removed default rates. These are obtained by omitting those issuers that had ratings withdrawn. The N.R.-removal replicates the default rate that a buy-and-hold portfolio would experience if the portfolio were reallocated among the non-N.R. members of the portfolio each time the rating on a company is withdrawn. The numerators and denominators of the default rates decrease gradually as companies merge, leave the public fixed-income markets, or request the ratings on them be withdrawn. These rates are, in general, greater than those of the conventional default rate calculation, but the overall behavior of the default rates is quite similar. That is, the higher the rating, the lower the default likelihood.

The N.R.-removed default rate calculation may unduly inflate default rates as shown by the following example. Suppose that there were 10 issuers in a static pool, nine of which became N.R. over a 10-year time span for benign reasons such as mergers or retiring of debt. If, in the 10th year, the one company that was still rated were to default, the N.R.-adjusted default rate would be 100% for the 10-year time horizon. In order for the conventional default rate to reach 100%, all nine of the N.R. issuers would need to default after the ratings on them were withdrawn. Although the N.R.-removed default rate likely overstates the risk of default, it is included in this study because some investors use it as a conservative estimate of average default rates.

Time sample. This update limits the reporting of default rates to the 15-year time horizon; however, the data was gathered for 25 years and all calculations are based on the rating experience of that period. The maturities of most obligations are much shorter than 15 years. In addition, average default statistics become less reliable at longer time horizons as the sample size becomes smaller and the cyclical nature of default rates increases its effect on averages.

Default patterns share broad similarities across all static pools, suggesting that Standard & Poor's rating standards have been consistent over time. Adverse business conditions tend to coincide with default upswings for all pools. Speculative-grade issuers have been hit the hardest by these upswings, but investment-grade default rates also increase in stressful periods.

Transition analysis

Transition rates compare issuer ratings at the beginning of a time period with ratings at the end of the period. To compute one-year rating transition rates by rating category, the rating on each entity at the end of a particular year was compared with the rating at the beginning of the same year. An issuer that remained rated for more than one year was counted as many times as the number of years it was rated. For instance, an issuer continually rated from the middle of 1984 to the middle of 1991 would appear in the six consecutive one-year transition matrices from 1985 to 1990. All 1981 static pool members still rated on Dec. 31, 2005, had 25 one-year transitions, while companies first rated between Jan. 1, 2005, and Dec. 31, 2005 had only one. Table 20 displays the summary of one-year transitions within the investment-grade and speculative-grade rating categories.

Each one-year transition matrix displays all rating movements between letter categories from the beginning of the year through year-end. For each rating listed in the matrix's left-most column, there are nine ratios listed in the rows, corresponding to the ratings from 'AAA' to 'D,' plus an entry for N.R. (see Tables 21, 23, and 24). For instance, the first panel of Table 23, which corresponds to the 1981 static pool, shows that out of all 'A' rated companies at the beginning of that year, 88.03% were rated the same at year end, while 4.46% had been upgraded to 'AA,' 6.49% had been downgraded to 'BBB,' 0.20% had been downgraded to 'BB,' and so on.

Table 20

Summary Of One-Year Rating Transitions					
Investment-Grade Rating Distribution at Year-End					
Year	Jan. 1 Investment Grade (Count)	Investment Grade (%)	Speculative Grade* (%)	Defaulted† (%)	Rating Withdrawn (%)
1981	1,070	97.38	1.40	0.00	1.21
1982	1,099	93.63	3.00	0.18	3.18
1983	1,122	94.21	2.05	0.09	3.65
1984	1,181	95.17	2.29	0.17	2.37
1985	1,216	93.09	3.54	0.00	3.37
1986	1,337	89.90	3.96	0.15	5.98
1987	1,334	90.25	3.00	0.00	6.75
1988	1,349	91.85	2.74	0.00	5.41
1989	1,400	93.21	2.64	0.14	4.00
1990	1,447	94.75	2.00	0.14	3.11
1991	1,496	96.39	1.67	0.20	1.74
1992	1,661	96.21	1.20	0.00	2.59
1993	1,823	92.27	1.54	0.00	6.20
1994	1,916	95.62	0.84	0.05	3.50
1995	2,144	95.71	1.07	0.05	3.17
1996	2,336	94.26	0.60	0.00	5.14
1997	2,551	91.85	1.22	0.08	6.86
1998	2,718	90.10	2.28	0.15	7.47
1999	2,790	90.82	1.51	0.14	7.53
2000	2,835	92.45	1.80	0.18	5.57
2001	2,929	91.40	2.59	0.20	5.80
2002	3,049	90.03	4.20	0.46	5.31
2003	2,998	92.46	2.47	0.10	4.97
2004	3,117	94.32	0.96	0.00	4.72
2005	3,264	92.98	1.65	0.03	5.33
Weighted average		92.92	2.01	0.11	4.96
Speculative-Grade Rating Distribution at Year-End					
Year	Jan. 1 Speculative Grade (Count)	Investment Grade§ (%)	Speculative Grade (%)	Defaulted (%)	Rating Withdrawn (%)
1981	322	4.66	90.06	0.62	4.66
1982	341	2.64	80.94	4.40	12.02
1983	342	3.22	83.63	2.92	10.23
1984	371	4.85	86.79	3.23	5.12
1985	420	3.81	85.95	4.29	5.95
1986	533	3.00	82.36	5.63	9.01
1987	687	3.49	79.48	2.77	14.26
1988	760	3.68	79.21	3.95	13.16
1989	753	5.18	74.90	4.52	15.41
1990	694	3.17	75.07	8.07	13.69
1991	590	2.88	78.14	11.02	7.97
1992	525	6.29	78.86	5.71	9.14
1993	562	4.98	76.51	2.31	16.19

1994	717	3.91	86.05	2.09	7.95
1995	832	3.73	84.86	3.49	7.93
1996	897	4.68	81.38	1.78	12.15
1997	1,016	4.33	81.10	1.97	12.60
1998	1,334	3.07	83.51	3.67	9.75
1999	1,674	1.49	81.78	5.50	11.23
2000	1,782	2.02	83.95	5.84	8.19
2001	1,806	1.44	79.62	9.58	9.36
2002	1,726	1.91	80.36	9.15	8.57
2003	1,837	1.52	82.31	4.90	11.27
2004	1,955	2.25	84.76	1.89	11.10
2005	2,151	3.07	82.75	1.35	12.83
Weighted average		1.43	40.14	2.28	5.22

* Fallen angels that survived to Jan. 1 of the year after they were downgraded. ¶Investment-grade defaulters. §Rising stars.
Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 21

Average One-Year Transition Rates By Rating Modifier, 1981 - 2005 (%)										
From/To	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-
AAA	88.20	4.24	2.76	0.67	0.17	0.20	0.12	0.03	0.06	0.00
AA+	2.21	77.79	10.97	3.21	0.60	0.74	0.20	0.07	0.13	0.07
AA	0.56	1.11	81.86	7.76	2.65	1.35	0.32	0.45	0.15	0.04
AA-	0.05	0.23	3.37	77.95	9.75	2.91	0.73	0.33	0.21	0.09
A+	0.00	0.03	0.60	3.87	79.08	8.25	2.69	0.65	0.32	0.09
A	0.06	0.08	0.40	0.61	4.84	77.86	6.32	3.09	1.11	0.34
A-	0.07	0.02	0.09	0.23	0.69	6.50	74.63	8.45	2.66	0.69
BBB+	0.02	0.04	0.07	0.09	0.29	1.25	6.84	72.88	8.50	2.42
BBB	0.02	0.02	0.09	0.05	0.21	0.58	1.39	6.71	74.64	5.59
BBB-	0.02	0.00	0.02	0.11	0.08	0.29	0.46	1.62	8.24	70.79
BB+	0.14	0.03	0.00	0.03	0.07	0.21	0.17	0.66	2.69	10.62
BB	0.00	0.00	0.05	0.00	0.00	0.13	0.11	0.24	1.03	2.67
BB-	0.00	0.00	0.00	0.02	0.02	0.02	0.10	0.18	0.35	0.57
B+	0.00	0.01	0.00	0.06	0.00	0.04	0.12	0.07	0.07	0.15
B	0.00	0.00	0.03	0.00	0.00	0.12	0.12	0.03	0.18	0.03
B-	0.00	0.00	0.00	0.00	0.06	0.13	0.00	0.13	0.13	0.25
CCC/C	0.00	0.00	0.00	0.00	0.07	0.00	0.21	0.14	0.14	0.14

N.R.—Not rated. Source: Standard & Poor's Global Fixed Income Research; Standard & Poor's CreditPro® 7.02.

Table 21 (Continued)

Average One-Year Transition Rates By Rating Modifier, 1981 - 2005 (%)									
From/To	BB+	BB	BB-	B+	B	B-	CCC	D	N.R.
AAA	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	3.49
AA+	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	3.95
AA	0.04	0.02	0.02	0.00	0.00	0.02	0.04	0.00	3.59
AA-	0.05	0.00	0.00	0.07	0.12	0.02	0.00	0.02	4.10
A+	0.07	0.12	0.02	0.09	0.05	0.02	0.02	0.05	3.99

A	0.16	0.18	0.13	0.13	0.03	0.01	0.01	0.04	4.62
A-	0.19	0.23	0.14	0.11	0.02	0.02	0.07	0.04	5.16
BBB+	0.51	0.49	0.18	0.36	0.20	0.02	0.07	0.20	5.57
BBB	1.76	0.95	0.40	0.32	0.20	0.03	0.08	0.28	6.68
BBB-	5.71	2.70	1.05	0.65	0.34	0.25	0.42	0.36	6.89
BB+	63.55	6.24	3.21	1.38	0.76	0.17	0.62	0.59	8.86
BB	7.22	65.41	7.30	3.15	1.51	0.50	0.85	0.87	8.94
BB-	2.20	7.51	64.41	8.25	2.77	1.05	1.11	1.62	9.81
B+	0.38	1.62	5.74	66.97	6.38	2.38	2.21	2.86	10.92
B	0.37	0.55	1.95	8.33	57.20	5.68	5.34	7.78	12.27
B-	0.32	0.32	0.82	3.42	7.41	51.77	10.39	11.22	13.62
CCC/C	0.14	0.28	0.83	1.52	2.56	6.84	47.06	27.02	13.06

N.R.—Not rated. Source: Standard & Poor's Global Fixed Income Research; Standard & Poor's CreditPro® 7.02.

Practical application of transition rates. Rating transition rates are useful to investors and credit professionals for whom rating stability is important. For instance, investors restricted by law or inclination to invest in top-grade bonds would want to assess the likelihood that Standard & Poor's analysts will continue to assign top ratings to their investments. Conversely, investors buying high-yield bonds in hopes of profiting from a rating upgrade would be able to gauge that expectation realistically.

The credit community might also use rating transition information, in part, to determine maturity exposure limits or to measure credit risk in the context of the value-at-risk models. Assuming that the rating transition rates are stable and follow a first-order Markov process, cumulative default rates could be projected for any number of years into the future. Rating transition matrices could also be constructed to produce stressed default rates. Such matrices are often used in the area of credit risk measurement. In addition, multiyear transition matrices are valuable tools that can be used to forecast future rating distributions and may be better suited for certain applications than are one-year transition matrices.

N.R.-removed transition rates. The difference between Tables 9 and 11 is that the latter is based on pools that have been gradually pared down by dropping those obligors whose ratings have been withdrawn (set to 'N.R.'). The number of withdrawn ratings grows particularly large in the case of speculative-grade ratings categories after just a few years. Little is known about 'N.R.' obligors except that there is no public record of a default. Indeed, default might be unlikely for those obligors whose debt has been extinguished.

Multiyear transitions. Multiyear transitions were also calculated for periods of two up to 20 years. In this case, the rating at the beginning of the multiyear period was compared with the rating at the end. For example, three-year transition matrices were the result of comparing ratings at the beginning of the years 1981 to 2003 with the ratings at the end of the years 1983 to 2005. Otherwise, the methodology was identical to that used for single-year transitions.

Average transition matrices were calculated on the basis of the multiyear matrices just described. These average matrices are a true summary whose ratios represent the historical incidence of the ratings listed on the first column, changing to the ones listed on the top row over the course of the multiyear period (see Table 24).

Comparing transition rates with default rates. Rating transition rates may be compared with the marginal and cumulative default rates described in the previous section. For example, note that the one-year default rate column of Table 12 is equivalent to column 'D' of the average one-year transition matrix found in Tables 9 and 24. However, the two-year default rate column of Table 10 is not the same as column 'D' of the average two-year transition matrix found in Table 24. This difference results from the different static pools used to calculate transition to default and cumulative average default rates. Cumulative average default rates are the summary of all static

BBB	304	0.00	0.33	11.51	76.32	5.92	1.97	0.00	0.66	3.29
BB	178	0.00	0.00	1.12	7.87	80.34	5.06	0.00	1.12	4.49
B	177	0.00	0.00	0.00	1.13	5.08	84.75	0.00	3.39	5.65
CCC/C	16	0.00	0.00	0.00	0.00	0.00	0.00	68.75	25.00	6.25

1985 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	94	90.43	6.38	0.00	0.00	1.06	0.00	0.00	0.00	2.13
AA	331	0.30	85.20	8.16	1.81	0.00	1.21	0.30	0.00	3.02
A	508	0.00	1.97	86.61	6.69	1.18	0.20	0.00	0.00	3.35
BBB	283	0.00	0.71	8.13	76.33	6.36	4.24	0.00	0.00	4.24
BB	205	0.00	0.00	0.98	5.37	74.63	10.24	1.46	1.46	5.85
B	202	0.00	0.00	1.49	0.00	2.48	82.67	0.50	6.44	6.44
CCC/C	13	0.00	0.00	0.00	0.00	0.00	30.77	53.85	15.38	0.00

1986 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	113	87.61	7.08	0.00	0.00	0.00	0.00	0.00	0.00	5.31
AA	360	1.11	86.39	4.44	1.67	0.00	0.56	0.00	0.00	5.83
A	562	0.18	4.63	77.58	8.90	1.42	1.60	0.00	0.18	5.52
BBB	302	0.00	0.00	6.95	74.17	8.28	2.65	0.33	0.33	7.28
BB	231	0.00	0.00	0.00	6.49	75.32	6.06	1.30	1.30	9.52
B	288	0.00	0.00	0.00	0.35	3.82	68.40	10.42	8.33	8.68
CCC/C	14	0.00	0.00	0.00	0.00	0.00	0.00	71.43	21.43	7.14

1987 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	132	92.42	3.03	0.00	0.76	0.00	0.00	0.00	0.00	3.79
AA	364	1.65	87.36	4.95	0.27	0.00	0.00	0.00	0.00	5.77
A	515	0.00	1.36	83.30	5.83	0.39	1.17	0.00	0.00	7.96
BBB	323	0.00	0.62	5.26	77.09	6.50	3.41	0.00	0.00	7.12
BB	271	0.00	0.00	0.37	7.01	70.85	7.75	0.00	0.37	13.65
B	358	0.00	0.00	0.84	0.00	4.75	74.58	2.51	3.07	14.25
CCC/C	58	0.00	0.00	0.00	1.72	1.72	6.90	60.34	12.07	17.24

1988 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	146	88.36	5.48	2.05	0.00	0.68	0.00	0.00	0.00	3.42
AA	364	1.37	81.59	10.44	2.75	0.55	0.27	0.00	0.00	3.02
A	507	0.00	1.58	87.57	4.54	0.79	0.59	0.00	0.00	4.93
BBB	332	0.00	0.30	8.73	73.49	5.12	2.11	0.60	0.00	9.64
BB	291	0.00	0.00	1.03	7.22	70.79	7.56	1.72	1.03	10.65
B	415	0.00	0.24	0.00	0.24	4.58	73.25	2.89	3.86	14.94
CCC/C	54	0.00	0.00	0.00	3.70	3.70	9.26	50.00	20.37	12.96

1989 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	156	92.31	6.41	0.00	0.00	0.00	0.00	0.00	0.00	1.28
AA	357	0.56	90.76	6.72	0.00	0.00	0.00	0.00	0.00	1.96
A	553	0.00	1.45	85.71	6.51	2.17	0.18	0.00	0.00	3.98
BBB	334	0.00	0.00	6.89	77.84	5.99	0.60	0.60	0.60	7.49
BB	281	0.00	0.00	0.71	12.46	66.55	5.34	0.71	0.71	13.52
B	415	0.00	0.24	0.00	0.00	7.23	69.64	3.86	3.37	15.66
CCC/C	57	0.00	0.00	1.75	0.00	1.75	0.00	42.11	31.58	22.81

1990 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	154	94.81	4.55	0.00	0.00	0.00	0.00	0.00	0.00	0.65
AA	381	0.52	88.19	10.24	0.00	0.00	0.00	0.00	0.00	1.05
A	562	0.00	2.14	85.05	7.47	1.25	0.18	0.00	0.00	3.91
BBB	350	0.00	0.00	4.86	83.43	5.14	0.86	0.00	0.57	5.14
BB	283	0.00	0.00	0.00	6.36	65.02	9.89	3.18	3.53	12.01
B	363	0.00	0.55	0.00	0.55	3.31	66.12	4.96	8.54	15.98
CCC/C	48	0.00	0.00	0.00	0.00	2.08	4.17	56.25	31.25	6.25

1991 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	167	87.43	11.98	0.60	0.00	0.00	0.00	0.00	0.00	0.00
AA	394	0.25	90.36	7.61	0.00	0.00	0.00	0.00	0.00	1.78
A	568	0.18	0.53	91.37	6.16	0.53	0.00	0.00	0.00	1.23
BBB	367	0.00	0.82	3.81	85.29	5.18	0.82	0.00	0.82	3.27
BB	239	0.00	0.00	0.00	5.86	76.15	7.53	1.67	1.67	7.11
B	289	0.00	0.35	0.00	0.35	5.54	68.17	3.46	13.84	8.30
CCC/C	62	0.00	0.00	0.00	1.61	3.23	6.45	45.16	33.87	9.68

1992 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	176	88.64	9.66	0.00	0.00	0.00	0.00	0.00	0.00	1.70
AA	458	1.09	89.08	6.33	1.09	0.00	0.00	0.00	0.00	2.40
A	634	0.00	1.10	92.27	4.10	0.16	0.16	0.00	0.00	2.21
BBB	393	0.00	0.25	4.58	86.77	3.82	0.76	0.00	0.00	3.82

BB	245	0.00	0.00	0.00	11.84	73.88	4.08	2.86	0.00	7.35
B	229	0.00	0.00	0.44	1.31	10.92	65.50	3.93	6.99	10.92
CCC/C	51	0.00	0.00	0.00	0.00	3.92	11.76	47.06	27.45	9.80

1993 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	176	90.91	2.84	1.70	0.00	0.00	0.00	0.00	0.00	4.55
AA	485	0.00	90.72	5.77	0.21	0.00	0.00	0.00	0.00	3.30
A	697	0.29	1.00	87.80	3.59	0.00	0.00	0.00	0.00	7.32
BBB	465	0.00	0.00	4.30	81.51	5.81	0.00	0.22	0.00	8.17
BB	288	0.00	0.35	0.35	7.99	69.44	7.64	0.35	0.35	13.54
B	229	0.00	0.00	0.44	0.87	13.10	64.19	1.75	2.62	17.03
CCC/C	45	0.00	0.00	0.00	0.00	2.22	26.67	28.89	13.33	28.89

1994 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	175	89.14	8.57	0.57	0.00	0.00	0.00	0.00	0.00	1.71
AA	492	0.41	88.21	8.74	0.00	0.00	0.00	0.20	0.00	2.44
A	743	0.00	1.21	91.66	4.04	0.13	0.13	0.13	0.13	2.56
BBB	506	0.00	0.20	2.77	88.14	1.98	0.40	0.00	0.00	6.52
BB	366	0.00	0.00	0.00	7.38	83.33	2.73	0.00	0.27	6.28
B	327	0.00	0.00	0.00	0.31	4.89	80.73	2.75	3.06	8.26
CCC/C	24	0.00	0.00	0.00	0.00	0.00	8.33	45.83	16.67	29.17

1995 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	181	90.06	7.73	0.00	0.00	0.00	0.00	0.00	0.00	2.21
AA	499	0.60	87.37	9.22	0.20	0.00	0.00	0.00	0.00	2.61
A	873	0.00	2.29	90.84	3.55	0.23	0.00	0.00	0.00	3.09
BBB	591	0.00	0.34	4.23	87.65	3.55	0.00	0.00	0.17	4.06
BB	410	0.00	0.00	0.49	6.10	81.22	4.88	0.00	0.98	6.34
B	396	0.00	0.00	0.25	0.51	7.32	76.01	2.02	4.55	9.34
CCC/C	26	0.00	0.00	0.00	3.85	0.00	7.69	50.00	26.92	11.54

1996 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	175	89.71	6.29	0.00	0.00	0.00	0.00	0.00	0.00	4.00
AA	508	0.59	87.60	5.12	0.00	0.00	0.00	0.00	0.00	6.69
A	955	0.00	2.93	89.95	1.99	0.10	0.00	0.00	0.00	5.03
BBB	698	0.14	0.00	5.73	87.82	1.72	0.14	0.00	0.00	4.44
BB	455	0.00	0.00	0.44	8.13	76.48	4.62	0.44	0.66	9.23
B	417	0.00	0.00	0.24	0.48	8.15	71.70	1.92	2.88	14.63
CCC/C	25	0.00	0.00	0.00	0.00	8.00	12.00	52.00	4.00	24.00

1997 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	173	90.17	4.62	0.00	0.00	0.00	0.00	0.00	0.00	5.20
AA	527	0.76	88.99	3.61	0.76	0.00	0.19	0.00	0.00	5.69
A	1,036	0.00	1.74	86.97	4.05	0.19	0.29	0.00	0.00	6.76
BBB	815	0.00	0.12	3.44	85.03	2.33	0.74	0.00	0.25	8.10
BB	529	0.00	0.00	0.19	7.56	75.61	4.54	0.00	0.19	11.91
B	462	0.00	0.00	0.65	0.00	6.71	73.59	2.60	3.46	12.99
CCC/C	25	0.00	0.00	0.00	0.00	0.00	16.00	52.00	12.00	20.00

1998 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	168	88.69	6.55	0.00	0.60	0.00	0.00	0.00	0.00	4.17
AA	533	0.38	87.24	5.07	0.00	0.00	0.00	0.00	0.00	7.32
A	1,046	0.10	1.43	85.76	5.64	0.29	0.00	0.00	0.00	6.79
BBB	971	0.00	0.00	2.47	82.18	5.15	0.72	0.21	0.41	8.86
BB	629	0.32	0.16	0.16	4.93	74.09	6.36	2.23	0.95	10.81
B	677	0.00	0.15	0.15	0.44	5.76	74.89	5.02	4.58	9.01
CCC/C	28	0.00	0.00	3.57	0.00	0.00	17.86	32.14	42.86	3.57

1999 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	157	85.35	5.73	0.00	0.00	0.00	0.00	0.00	0.00	8.92
AA	547	0.18	87.57	6.95	0.55	0.00	0.00	0.00	0.18	4.57
A	1,064	0.00	2.26	84.40	5.73	0.09	0.09	0.00	0.09	7.33
BBB	1,022	0.00	0.20	2.94	83.66	3.91	0.00	0.00	0.20	9.10
BB	754	0.00	0.13	0.00	2.79	76.26	6.76	0.66	0.93	12.47
B	851	0.00	0.00	0.12	0.24	2.59	75.68	4.11	7.29	9.99
CCC/C	69	0.00	0.00	0.00	0.00	0.00	2.90	50.72	33.33	13.04

2000 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	145	86.90	3.45	1.38	0.00	0.00	0.00	0.00	0.00	8.28
AA	551	0.73	84.39	10.89	0.18	0.00	0.00	0.00	0.00	3.81
A	1,055	0.00	2.37	84.36	7.49	0.38	0.09	0.00	0.09	5.21
BBB	1,084	0.00	0.28	2.49	86.16	3.51	0.46	0.28	0.37	6.46
BB	811	0.00	0.00	0.12	3.82	79.90	6.29	1.11	1.23	7.52

B	888	0.00	0.00	0.23	0.23	3.49	75.45	4.28	7.55	8.78
CCC/C	83	0.00	0.00	0.00	0.00	1.20	6.02	51.81	32.53	8.43

2001 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	135	88.89	5.19	0.00	0.00	0.00	0.00	0.00	0.00	5.93
AA	529	0.19	84.50	11.15	0.00	0.00	0.00	0.00	0.00	4.16
A	1,079	0.00	2.32	84.89	6.86	0.19	0.00	0.37	0.19	5.19
BBB	1,186	0.00	0.08	3.12	83.47	4.38	0.59	0.93	0.34	7.08
BB	823	0.00	0.00	0.36	2.79	73.88	9.84	2.19	3.16	7.78
B	873	0.00	0.00	0.00	0.00	2.98	66.55	8.25	11.23	11.00
CCC/C	110	0.00	0.00	0.00	0.00	0.00	7.27	40.00	44.55	8.18

2002 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	132	81.06	11.36	0.00	0.76	0.00	0.00	0.00	0.00	6.82
AA	526	0.19	74.90	16.92	2.28	0.19	0.57	0.00	0.00	4.94
A	1,120	0.00	0.54	83.13	10.54	0.80	0.18	0.09	0.09	4.64
BBB	1,271	0.00	0.08	2.12	82.06	6.06	2.20	0.55	1.02	5.90
BB	802	0.12	0.00	0.37	3.24	77.68	7.61	1.37	2.74	6.86
B	754	0.00	0.00	0.00	0.27	4.64	68.30	9.15	8.09	9.55
CCC/C	170	0.00	0.00	0.59	0.00	1.18	7.65	34.12	44.12	12.35

2003 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	112	82.14	8.04	1.79	0.00	0.00	0.00	0.00	0.00	8.04
AA	432	0.46	83.80	10.88	0.46	0.00	0.00	0.00	0.00	4.40
A	1,128	0.00	0.62	88.48	6.56	0.18	0.00	0.00	0.00	4.17
BBB	1,326	0.00	0.00	1.43	87.33	5.13	0.30	0.00	0.23	5.58
BB	915	0.00	0.00	0.00	2.95	75.85	9.84	0.66	0.55	10.16
B	758	0.00	0.00	0.00	0.13	6.60	72.30	3.83	4.09	13.06
CCC/C	164	0.00	0.00	0.00	0.00	0.61	11.59	45.73	32.93	9.15

2004 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	95	92.63	6.32	0.00	0.00	0.00	0.00	0.00	0.00	1.05
AA	407	0.25	90.42	3.69	0.25	0.00	0.00	0.00	0.00	5.41
A	1,160	0.00	1.12	92.33	3.10	0.09	0.00	0.00	0.00	3.36
BBB	1,455	0.00	0.07	1.99	90.10	1.86	0.14	0.00	0.00	5.84
BB	968	0.10	0.00	0.10	4.03	81.20	5.37	0.21	0.41	8.57
B	849	0.00	0.00	0.12	0.12	6.60	76.21	2.24	1.53	13.19
CCC/C	138	0.00	0.00	0.72	0.00	0.72	15.22	52.90	14.49	15.94

2005 Static Pool

From/To	Number of Issuers	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	98	88.78	9.18	1.02	0.00	0.00	0.00	0.00	0.00	1.02
AA	407	0.00	90.66	4.91	0.49	0.00	0.00	0.00	0.00	3.93
A	1,224	0.08	1.63	88.89	4.41	0.00	0.00	0.00	0.00	4.98
BBB	1,535	0.00	0.20	5.93	84.04	3.06	0.46	0.00	0.07	6.25
BB	1,015	0.00	0.00	0.00	5.71	76.75	6.90	0.20	0.20	10.25
B	1,010	0.00	0.00	0.10	0.59	8.51	70.59	3.76	1.58	14.85
CCC/C	126	0.00	0.00	0.00	0.79	0.79	25.40	46.83	8.73	17.46

Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Table 24

Average Multi-Year Transition Matrices, 1981 - 2005 (%)										
One-Year Transition Rates										
From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.	
AAA	88.20	7.67	0.49	0.09	0.06	0.00	0.00	0.00	0.00	3.49
AA	0.58	87.16	7.63	0.58	0.06	0.11	0.02	0.01	0.01	3.85
A	0.05	1.90	87.24	5.59	0.42	0.15	0.03	0.04	0.04	4.58
BBB	0.02	0.16	3.85	84.13	4.27	0.76	0.17	0.27	0.27	6.37
BB	0.03	0.04	0.25	5.26	75.74	7.36	0.90	1.12	1.12	9.29
B	0.00	0.05	0.19	0.31	5.52	72.67	4.21	5.38	5.38	11.67
CCC/C	0.00	0.00	0.28	0.41	1.24	10.92	47.06	27.02	27.02	13.06
Two-Year Transition Rates										
From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.	
AAA	77.84	13.34	1.53	0.18	0.12	0.03	0.00	0.00	0.00	6.97

AA	1.05	75.94	13.61	1.50	0.22	0.20	0.01	0.04	7.44
A	0.07	3.43	76.14	9.75	0.99	0.37	0.06	0.13	9.07
BBB	0.04	0.31	6.73	70.88	6.93	1.62	0.35	0.78	12.35
BB	0.04	0.07	0.55	9.11	57.08	10.77	1.48	3.42	17.48
B	0.00	0.08	0.34	0.73	9.14	52.05	4.67	12.14	20.86
CCC/C	0.00	0.00	0.38	1.06	1.74	13.40	25.44	37.17	20.82

Three-Year Transition Rates

From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	68.36	17.85	2.59	0.40	0.09	0.03	0.00	0.03	10.65
AA	1.42	66.19	18.36	2.37	0.41	0.28	0.02	0.09	10.86
A	0.10	4.56	66.84	12.42	1.61	0.66	0.11	0.25	13.47
BBB	0.04	0.49	8.66	60.30	8.37	2.44	0.51	1.40	17.78
BB	0.04	0.08	0.86	11.35	43.46	11.97	1.64	6.31	24.29
B	0.01	0.07	0.47	1.28	10.52	37.03	4.33	18.17	28.12
CCC/C	0.00	0.00	0.34	1.10	2.37	13.69	13.78	44.38	24.34

Five-Year Transition Rates

From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	53.81	22.10	4.89	1.03	0.13	0.13	0.00	0.10	17.80
AA	1.81	51.23	24.07	4.11	0.62	0.43	0.05	0.30	17.38
A	0.13	5.76	52.75	15.45	2.57	1.09	0.16	0.64	21.45
BBB	0.08	0.85	10.63	45.93	8.84	3.05	0.65	3.01	26.97
BB	0.03	0.14	1.58	12.72	26.79	10.67	1.68	11.78	34.61
B	0.04	0.07	0.57	2.17	9.94	20.37	2.87	26.14	37.83
CCC/C	0.00	0.00	0.24	1.53	2.59	9.54	4.36	49.35	32.39

Seven-Year Transition Rates

From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	42.94	24.04	6.79	1.94	0.22	0.07	0.07	0.26	23.67
AA	1.90	40.87	26.68	5.23	0.82	0.34	0.03	0.55	23.57
A	0.14	5.91	43.78	16.39	3.13	1.20	0.16	1.10	28.18
BBB	0.11	1.14	11.31	37.09	8.11	2.77	0.55	4.08	34.84
BB	0.00	0.14	2.04	13.11	17.37	8.38	1.03	15.07	42.85
B	0.02	0.06	0.80	2.86	8.40	12.13	1.82	28.80	45.11
CCC/C	0.00	0.00	0.46	2.13	2.74	5.64	2.13	48.93	37.96

10-Year Transition Rates

From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	29.91	24.97	9.65	3.64	0.13	0.00	0.00	0.54	31.16
AA	1.66	29.99	27.57	7.08	1.05	0.38	0.02	0.85	31.40
A	0.24	5.65	35.72	16.40	3.36	1.21	0.06	1.89	35.46
BBB	0.07	1.43	12.24	28.55	7.04	2.10	0.23	5.43	42.91
BB	0.05	0.14	2.83	13.15	10.57	5.25	0.53	17.65	49.83
B	0.00	0.04	0.89	4.04	6.79	6.08	0.75	29.35	52.05
CCC/C	0.00	0.00	0.37	0.75	3.37	2.25	0.37	50.00	42.88

15-Year Transition Rates

From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	17.04	22.77	14.73	2.75	0.37	0.37	0.00	0.97	41.00
AA	1.67	18.41	26.24	9.42	1.22	0.59	0.00	1.73	40.72
A	0.28	4.20	26.28	16.32	3.94	1.25	0.07	3.16	44.50
BBB	0.00	1.23	11.00	21.05	5.05	2.24	0.20	8.33	50.90

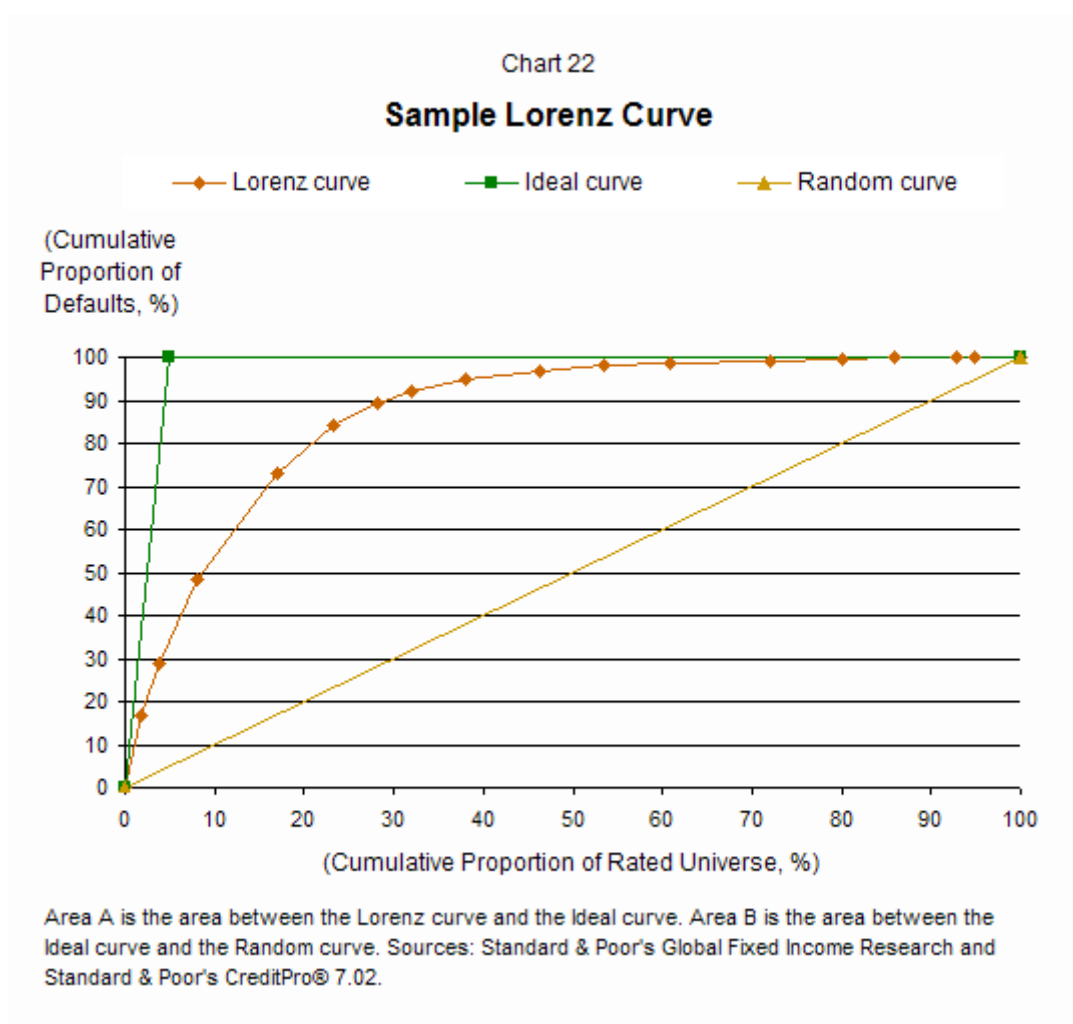
BB	0.00	0.28	3.15	9.17	5.90	2.64	0.24	22.94	55.69
B	0.00	0.00	1.03	4.16	3.54	2.61	0.69	35.72	52.25
CCC/C	0.00	0.00	1.10	1.38	3.03	1.38	0.00	55.65	37.47

20-Year Transition Rates									
From/To	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.
AAA	7.47	15.45	19.86	4.24	0.34	0.85	0.00	1.02	50.76
AA	1.49	9.19	20.35	13.84	1.79	0.36	0.06	3.22	49.70
A	0.40	2.21	20.18	14.48	3.39	2.11	0.20	5.67	51.36
BBB	0.00	1.01	7.93	17.45	3.60	1.29	0.51	11.76	56.44
BB	0.00	0.26	1.87	5.87	3.83	2.98	0.26	28.66	56.29
B	0.00	0.00	0.47	2.62	2.71	1.31	0.28	36.58	56.03
CCC/C	0.00	0.00	0.00	0.00	5.95	0.00	0.00	42.86	51.19

N.R.—Not rated. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro® 7.02.

Appendix II: Gini Methodology

To measure ratings performance or ratings accuracy, the cumulative share of issuers by rating is plotted against the cumulative share of defaulters in a Lorenz curve to show visually the accuracy of its rank ordering. The Lorenz curve was developed by Max O. Lorenz as a graphical representation of the proportionality of a distribution. To build the Lorenz curve, the observations are ordered from the low end of the ratings scale ('CC') to the high end ('AAA'). If Standard & Poor's corporate rating rank orderings only randomly approximated default risk, the curves would fall along the diagonal. Its Gini coefficient—which is a summary statistic of the Lorenz curve—would thus be zero. If corporate ratings were perfectly rank-ordered so that all defaults occurred only among the lowest-rated entities, the curve would capture all of the area above the diagonal on the graph and its Gini coefficient would be one (see Chart 22). The procedure for calculating the Gini coefficients is illustrated below, and is derived by dividing Area B by the total Area A+B. In other words, the Gini coefficient captures the extent to which actual ratings accuracy diverges from the random scenario and aspires to the ideal scenario.



Appendix III: Default And Transition Experience Of Corporates Versus Structured Finance Asset Classes

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Table 25

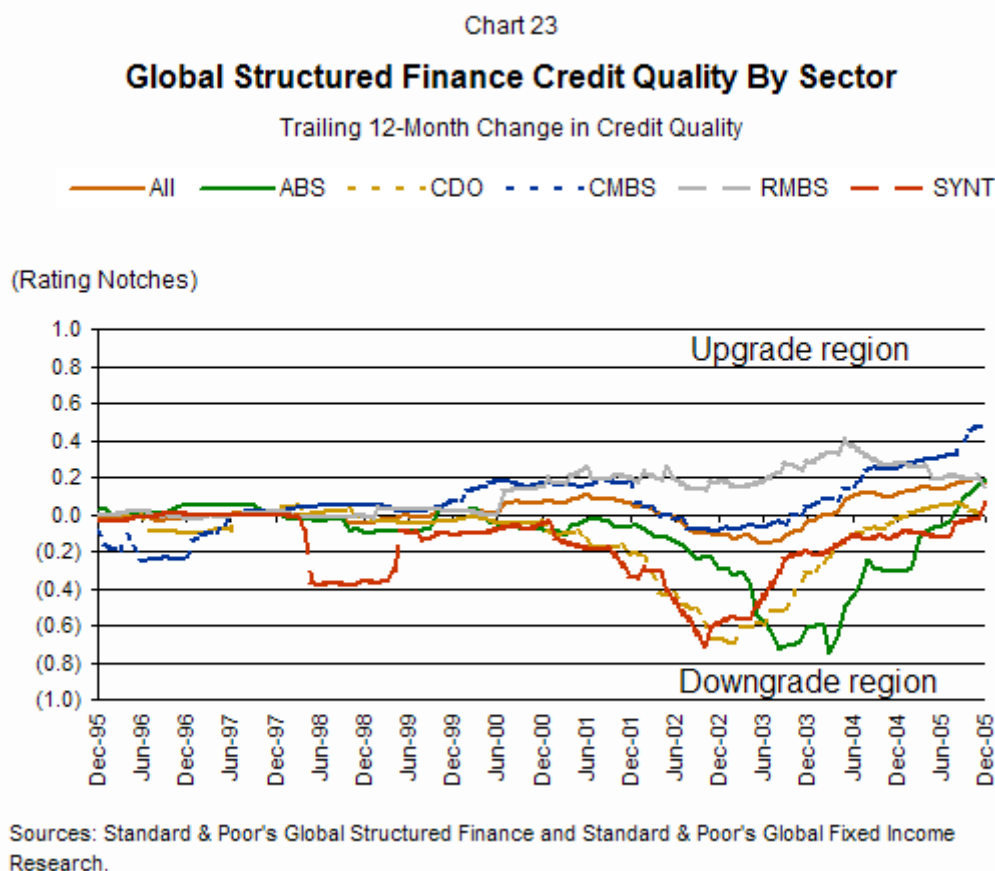
Global Structured Finance 2005 Rating Transition By Region And Sector							
Region/Sector	Beginning Number of Ratings	Stable (%)	Upgrade (%)	Downgrade (%)*	Near Default (%)*	Default (%)*	
U.S. ABS¶	3,728	93.43	4.75	1.82	0.00	0.97	
U.S. CDO§	3,917	93.16	3.47	3.37	0.38	0.56	
U.S. CMBS	4,353	76.29	21.36	2.34	0.00	0.51	
U.S. RMBS**	17,674	91.45	7.91	0.64	0.01	0.19	
U.S. Single-Issue Synthetics	879	81.91	10.58	7.51	0.00	0.57	
U.S. Corporate Bonds	2,866	71.35	9.11	12.14	N.A.	0.91	
Euro. ABS¶	592	95.78	2.36	1.86	0.51	1.18	
Euro. CDO§	2,552	92.71	3.41	3.88	0.00	0.00	
Euro. CMBS	430	91.16	6.51	2.33	0.00	0.00	

Euro. RMBS**	1,190	93.36	6.30	0.34	0.00	0.00
Euro. Single-Issue Synthetics	276	91.30	3.26	5.43	0.00	0.00
Euro. Corporate Bonds	941	68.97	8.93	11.37	N.A.	0.11
Asia (non-Japan)	51	86.27	11.76	1.96	0.00	0.00
Asia (non-Japan) Corporate Bonds	314	58.28	34.08	2.87	N.A.	0.00
Australia / New Zealand	878	95.56	3.42	1.03	0.00	0.00
Australia / New Zealand Corporate Bonds	167	76.65	6.59	9.58	N.A.	0.00
Canada	265	85.28	14.72	0.00	0.00	0.00
Canada Corporate Bonds	247	73.68	6.07	8.50	N.A.	0.40
Japan	897	89.19	8.58	2.23	0.00	0.00
Japan Corporate Bonds	347	64.84	26.22	1.73	N.A.	0.29
Latin America/Emerg. Mkt.	114	82.46	16.67	0.88	0.00	0.00
Latin America/Emerg. Mkt. Corporate Bonds	771	63.81	25.29	2.46	N.A.	0.13
Total Structured Finance	37,796	90.03	8.25	1.72	0.05	0.33
Total corporate bonds¶¶	5,416	69.81	12.26	9.05	N.A.	0.55

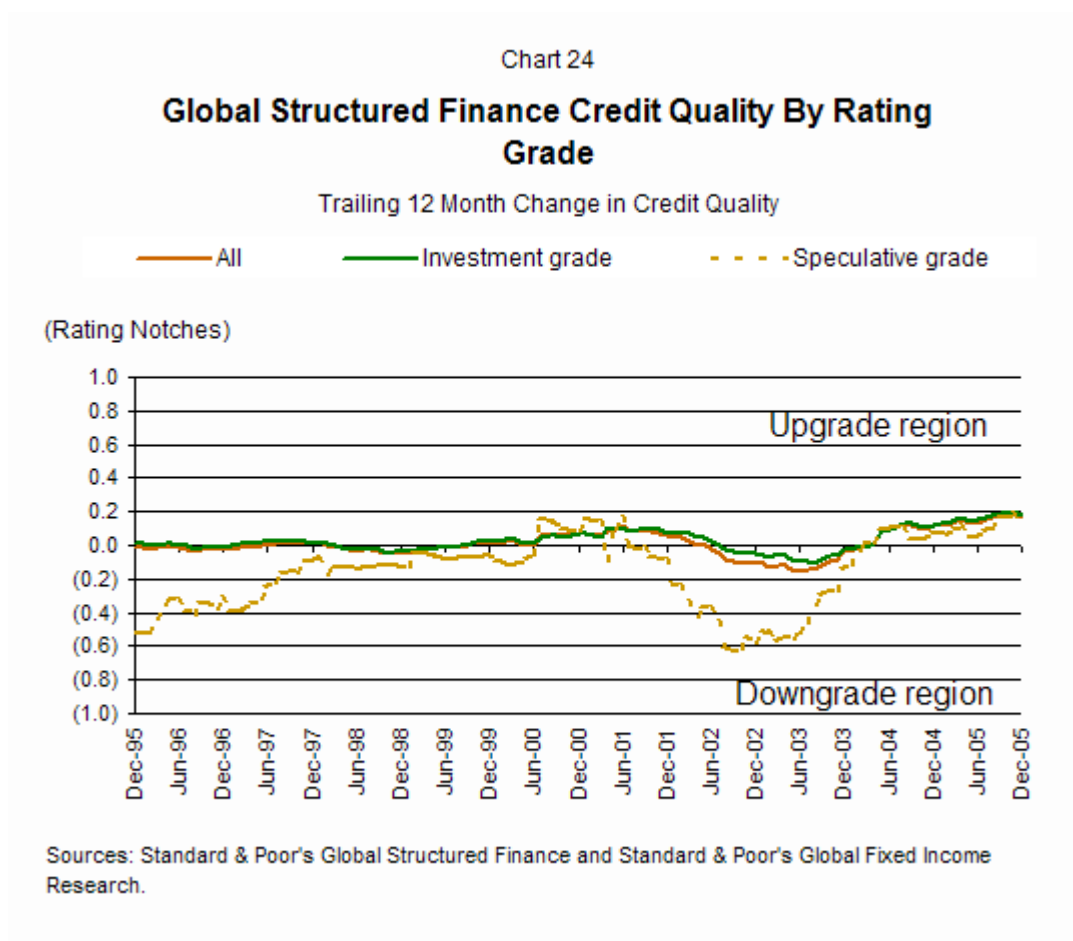
When ratings are withdrawn due to redemptions during the transition window, their last rating before withdrawal is used in the transition rate calculation. Rating modifiers (+ and -) are used when determining rating transitions such as upgrades and downgrades. 'AAA' ratings from the same transaction are treated as a single rating in the calculation of this table. *Downgrade rate among structured finance asset classes includes near-defaults ('CC' or 'C') and defaults. Default rate includes near-defaults. Among corporates, however, only transitions to 'D' or 'SD' are recorded in the default column. ¶ABS includes manufactured housing deals. §CDO includes cash, synthetic, and market value CDOs as well as leveraged funds. **RMBS includes subprime mortgage transactions. ¶¶Corporate bonds refer to issuer ratings of financial and nonfinancial entities. Source: Standard & Poor's

The propensity for downgrades was much higher among corporates than among structured finance securities, even though the gap in default rates was much smaller (see Table 25). Although the distinctions between these two asset classes need to be kept in mind, the broad trends established in 2005 are consistent with long-term patterns (see also Charts 25 and 26). Overall, the improving credit quality observed in 2005 was relatively significant. Table 25 shows the actual number of ratings outstanding at the beginning of this year for each sector and region and provides insight into the rating transition rates in 2005 for corporates as well as structured finance asset classes. In 2005, the following key trends were observed in the structured finance asset classes:

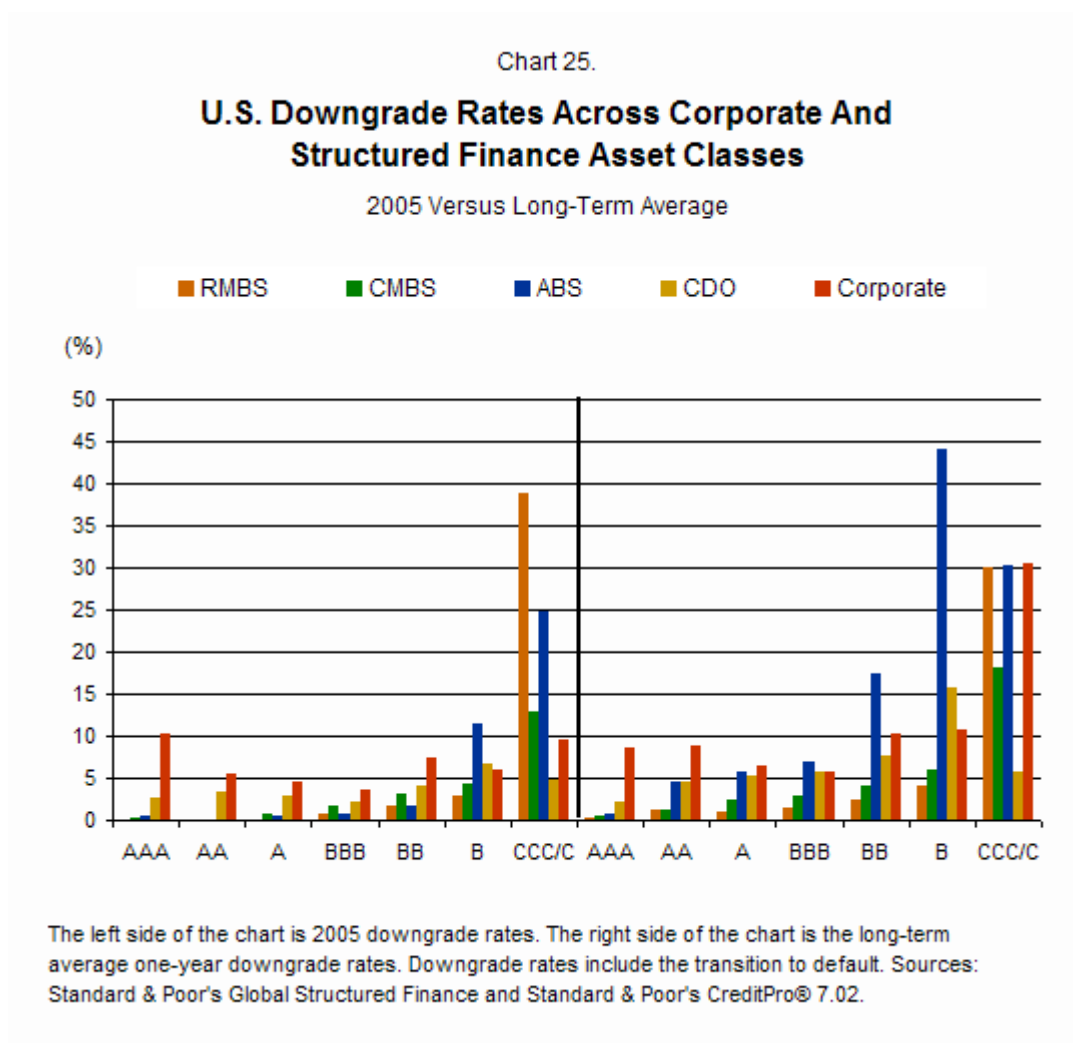
- Global structured securities continue to exhibit positive credit trends, reversing the significant declines in credit quality between 2001 and 2003.
- Overall, about 10% of global structured securities experienced rating transitions in 2005 compared with 10.87% in 2004.
- Globally, CMBS and RMBS sectors performed well in 2005 and accounted for the majority of raised ratings in terms of the number of upgraded securities.
- U.S. and European CMBS experienced improved credit quality, resulting in higher upgrade rates of 21.36% and 6.51%, respectively.
- Sectors such as aircraft, manufactured housing, early vintage CDO of ABS, and single-issue synthetic sectors accounted for most downgrades.
- The upgrade rate in 2005 was 8.25% versus 7.84% in 2004. In other words, 8.25% of outstanding ratings were raised during this time period, suggesting a slight improvement over 2004.
- The downgrade rate was 1.72% for global structured finance during 2005, down from a rate of 3.03% during 2004.
- Defaults and near defaults in 2005 came primarily from securities that were rated 'B' or lower at the beginning of 2005.



Overall, the global structured securities performed well in 2005, exceeding the credit experience observed by their corporate counterparts last year as well as their own prior performance during the past several years. The upgrade rate for global structured securities was about 4.8x the downgrade rate in 2005. Within structured finance asset classes globally, CMBS ratings have seen the most positive trend, with credit quality at the highest level in the 12 months ended Dec. 2005 (see Chart 23). This performance benefited from healthy real estate fundamentals (all property sectors posted rent gains), defeasance, and relatively low delinquency rates. The RMBS sector continued to be the most stable, benefiting from substantial upgrades. However, the credit quality of CDOs and, to a greater extent, ABS has improved in 2004 and 2005, following significant deterioration between 2001 and 2003. Credit quality of U.S. asset-backed securities (ABS) performed better than its historical average transition rates, primarily because of the strong credit behavior of credit card, auto, and student loan ABS ratings. The one exception was seasoned manufactured housing transactions. About 9% of all outstanding manufactured housing securities experienced downgrades, and they accounted for the majority of downgraded securities in the U.S. ABS market during the year.

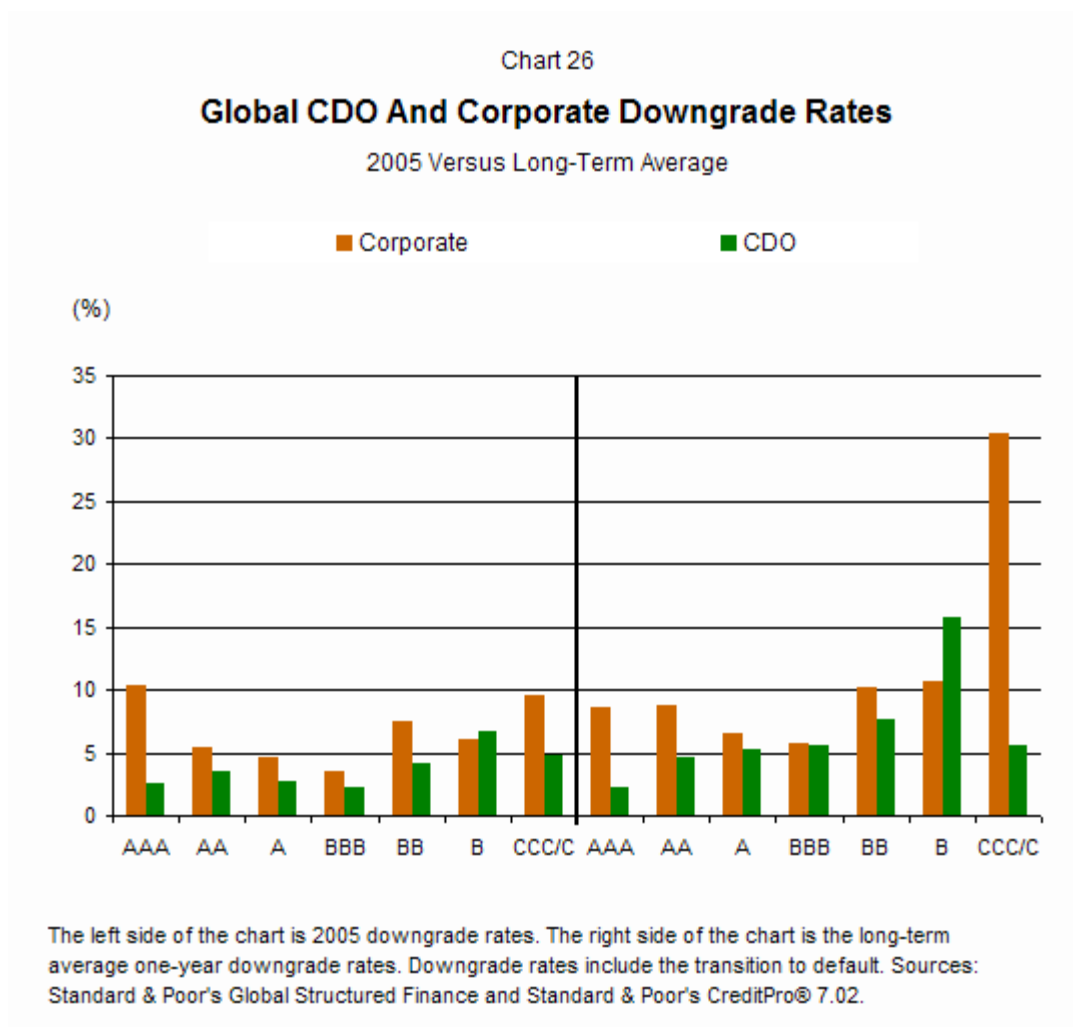


Across sectors, both investment- and speculative-grade securities showed improvements in credit quality (see Chart 24). Volatility in the speculative-grade segment declined significantly in 2005 compared with recent years, though it still accounted for a greater chunk of the overall volatility.



Viewed across rating categories (see Chart 25), the following key observations emerge from the U.S. market:

- Structured securities rated 'A' or higher, on average, tend to experience lower downgrade rates than their corporate counterparts.
- Within 'BBB' or below, ratings in the ABS sector on average show higher downgrade rates vis-à-vis corporates as well as other structured finance sectors. This is attributable largely to the poor credit performance of certain subsectors such as manufactured housing, franchise loans, and aircraft ABS in recent years.
- In 2005, structured finance securities performed better than corporates in terms of downgrade rates in every rating category higher than 'B'.
- The relatively high downgrade rates in the 'AAA' rated segment of the corporate sector in 2005 is attributable to a small universe of ratings (a small base creates room for greater volatility). Many of these actions were related to U.S.-based insurance companies that were downgraded from 'AAA' during the course of the year.



Globally, one-year downgrade rates among corporates in 2005 were higher than those seen in the CDO market, in keeping with long-term trends (see Chart 26). This was true across most major rating categories (all except 'B' rated entities) as well as many geographies (though in 2005, improvements were largely attributable to the U.S. and Australia/New Zealand). The gap between global CDOs and corporates in the 'CCC'/'C' rating category is likely overstated by the time horizon under consideration. Several 'CC' rated CDOs that have not faced a credit event in the one-year horizon will eventually move to default when actual principal loss events occur over a more extended period of time.

CDO rating behavior tends to be more closely correlated with corporates because CDOs backed by corporate credits are a significant part of the CDO universe. Performance among CDOs improved in 2005 relative to historical averages, owing to strong credit behavior among most structured finance sectors in 2005, even though early vintage CDOs of ABS transactions and synthetic corporate investment-grade CDOs experienced rating deterioration in 2005. The latter category was largely affected by high-profile downgrades in the auto sector as well as bankruptcy filings in the U.S. airline sector and by Delphi Automotive.