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## Default, Transition, and Recovery:

# 2015 Annual Global Corporate Default Study And Rating Transitions

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## Default, Transition, and Recovery:

# 2015 Annual Global Corporate Default Study And Rating Transitions

In 2015, oil prices continued to slide, volatility in emerging market financial sectors picked up, and the Federal Reserve raised the interest rate for the first time in almost 10 years. In particular, the stress felt in the commodities sectors pushed the corporate default count for 2015 up to 113--the first time an annual total has exceeded 100 since 2009 (see table 1). These 113 defaulted issuers accounted for a total of \$110.3 billion in debt, up from \$91.6 billion in 2014, though a proportionately much smaller amount on average considering the number of defaults.

At the end of December 2015, the global speculative-grade default rate rose to 2.75%--its highest level since 2010 (when it was 3%) but still well below the 35-year annual average of 4.1% (see chart 7). This increase was mostly the result of the much higher pace of defaults among energy and commodities sectors. At the end of 2015, the global speculative-grade default rate, excluding energy and natural resources, was a much more modest 1.85%. Meanwhile, the rate for the energy and natural resources sector was just under 10% by year-end.

### Overview

- In full-year 2015, the number of defaults globally nearly doubled from a year earlier, to 113 from 60 in 2014. This pushed the global speculative-grade default rate up to 2.75% from 1.43% at the end of 2014. This increase occurred alongside an 8.6% bump in the number of speculative-grade issuers at the start of the year relative to 2014.
- The continued decline in oil and other commodity prices in 2015 was one of the biggest factors behind the overall increase in defaults for the year. The energy and natural resources sector accounted for 39% of all defaults in 2015, well outpacing the consumer/service sector, which followed at roughly 16%.
- The one-year global Gini ratio fell to 83.5 in 2015, which is the lowest reading since 2009, when the speculative-grade default rate reached nearly 10%. This decline is partly driven by two defaulters that began the year with ratings in the 'BB' category. Also, not since 2009 has the 'CCC'/'C' category accounted for such a low proportion of all defaulters (46.8% of the total in 2015).
- The overall rate of rating actions increased in 2015 relative to 2014 but was very consistent with long-term averages. The downgrade rate increased to 11.8% from 8.5% in 2014, while the upgrade rate declined to 7.4% from 9.2%. Ratings stability decreased, with the rate of unchanged ratings falling slightly to 71.1%, from 74.5% a year earlier.
- Consistent with past years, the U.S. continues to account for the majority of defaults globally in 2015, at 58.4%. This is slightly higher than the 55% of last year's defaulters but is still historically low. Following the U.S., emerging markets accounted for just over 23% of the remaining defaulters.

Despite the increase in defaults, overall, credit quality and rating stability measures remained in line with most historical averages (see table 6). The ratio of downgrades to upgrades increased relative to 2014 on the back of an increase in downgrades and fewer upgrades. Overall, the percentage of rating actions increased somewhat, and the magnitude of individual rating changes also rose. This was reflected in the average number of notches recorded among

downgrades, which increased to 1.47 from 1.36. The average number of notches for upgrades increased slightly, to 1.18 versus 1.16 in 2014 (see chart 13).

All of the defaulted companies in 2015 that began the year with active ratings (94) were speculative grade (rated 'BB+' and lower) as of Jan. 1 (see table 1). Of the remaining 19, S&P Global Ratings assigned ratings on eight companies during 2015, and 11 began the year with withdrawn ratings. Also, of the 113 defaulters, 105 initially had speculative-grade ratings--the majority (92) from the 'B' and 'CCC'/'C' rating categories. We consider companies reemerging from a prior default separate entities from their experience prior to default.

This study includes industrials, utilities, financial institutions (which includes banks, brokerages, asset managers, and other financial entities), and insurance companies around the world with long-term local-currency ratings. We calculated all default rates reported on an issuer-weighted basis. (For a detailed explanation of the data sources and methodology used in the study, see Appendix I.)

Consistent with an increasing number of defaults in 2015 from the prior year, the one-year Gini ratio--a key measure of the relative ability of ratings to differentiate risk--fell to 83.5 in 2015 from 93 in 2014. This is the lowest annual Gini ratio in the last six years (see chart 30). The 2015 Gini is slightly lower than the one-year average of 84.8% (see table 2). (For details on the Gini methodology, refer to Appendix II.) A lot of the default activity in 2015 occurred within energy and natural resources--unsurprising given the continued decline in oil prices and other commodities that began in late 2014. Meanwhile, most other sectors had default rates close to their long-term averages, or ones that were well below those levels (see chart 2). The default rates in this study that we refer to as weighted averages use the number of issuers at the beginning of each year as the basis for each year's weight. Every rating category had an annual default rate in 2015 that was generally significantly lower than its long-term average (see table 9).

**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 outstanding (bil. \$)
1981	2	0	2	0.14	0.00	0.62	0.06
1982	18	2	15	1.19	0.18	4.41	0.90
1983	12	1	10	0.76	0.09	2.94	0.37
1984	14	2	12	0.91	0.17	3.27	0.36
1985	19	0	18	1.11	0.00	4.32	0.31
1986	34	2	30	1.72	0.15	5.67	0.46
1987	19	0	19	0.94	0.00	2.79	1.60
1988	32	0	29	1.38	0.00	3.85	3.30
1989	44	3	35	1.77	0.22	4.67	7.28
1990	70	2	56	2.73	0.14	8.12	21.15
1991	93	2	65	3.25	0.14	11.05	23.65
1992	39	0	32	1.49	0.00	6.10	5.40
1993	26	0	14	0.60	0.00	2.50	2.38
1994	21	1	15	0.63	0.05	2.11	2.30
1995	35	1	29	1.05	0.05	3.53	8.97

**Table 1**

Global Corporate Default Summary (cont.)							
Year	Total defaults*	Investment-grade defaults	Speculative-grade defaults	Default rate (%)	Investment-grade default rate (%)	Speculative-grade default rate (%)	Total debt outstanding (bil. \$)
1996	20	0	16	0.51	0.00	1.81	2.65
1997	23	2	20	0.63	0.08	2.01	4.93
1998	56	4	48	1.28	0.14	3.66	11.27
1999	109	5	92	2.14	0.17	5.56	39.38
2000	136	7	109	2.48	0.24	6.22	43.28
2001	229	7	173	3.78	0.23	9.86	118.79
2002	226	13	159	3.60	0.42	9.48	190.92
2003	119	3	89	1.92	0.10	5.05	62.89
2004	56	1	38	0.78	0.03	2.02	20.66
2005	40	1	31	0.60	0.03	1.50	42.00
2006	30	0	26	0.48	0.00	1.18	7.13
2007	24	0	21	0.37	0.00	0.91	8.15
2008	127	14	89	1.80	0.42	3.69	429.63
2009	268	11	224	4.18	0.33	9.88	627.70
2010	83	0	64	1.21	0.00	2.99	97.48
2011	53	1	44	0.80	0.03	1.83	84.30
2012	83	0	66	1.14	0.00	2.57	86.70
2013	81	0	64	1.06	0.00	2.29	97.29
2014	60	0	45	0.69	0.00	1.43	91.55
2015	113	0	94	1.36	0.00	2.75	110.31

\*This column includes companies that were no longer rated one year prior to default. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's Credit Pro®.

Chart 1

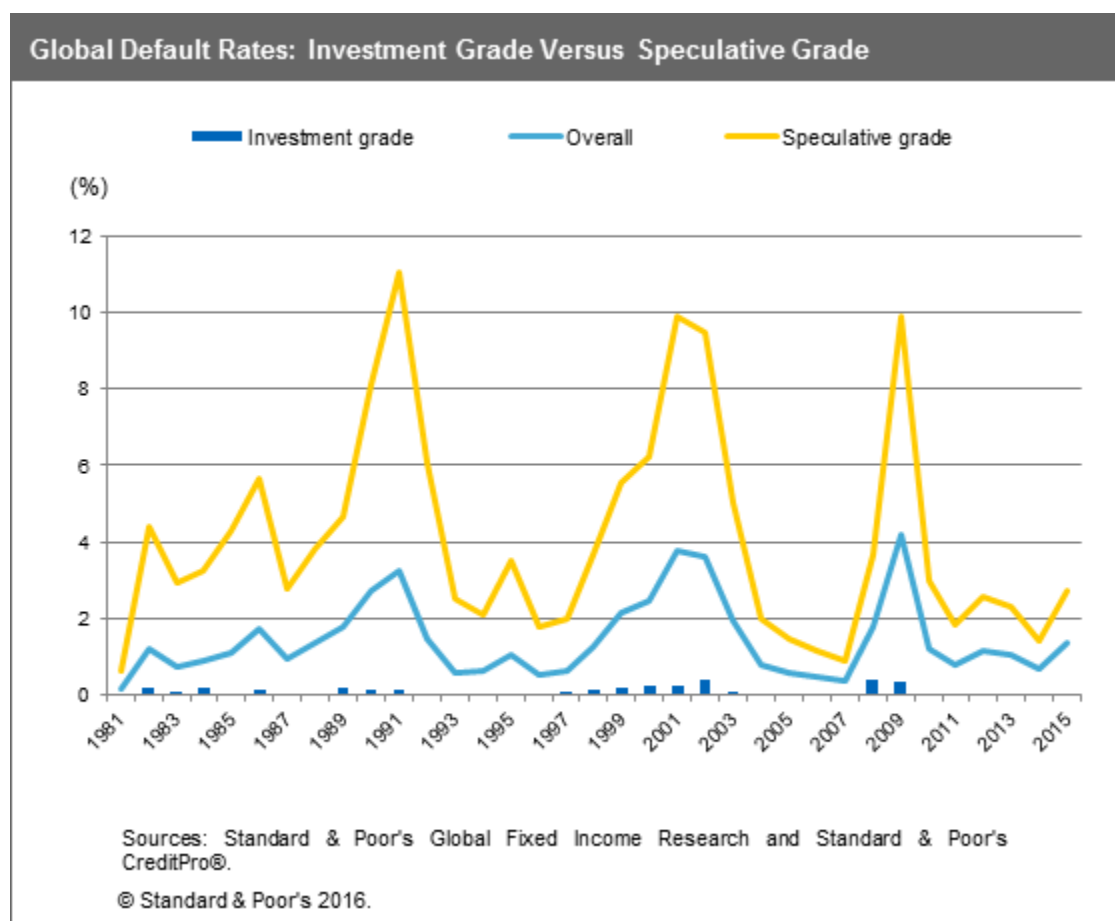
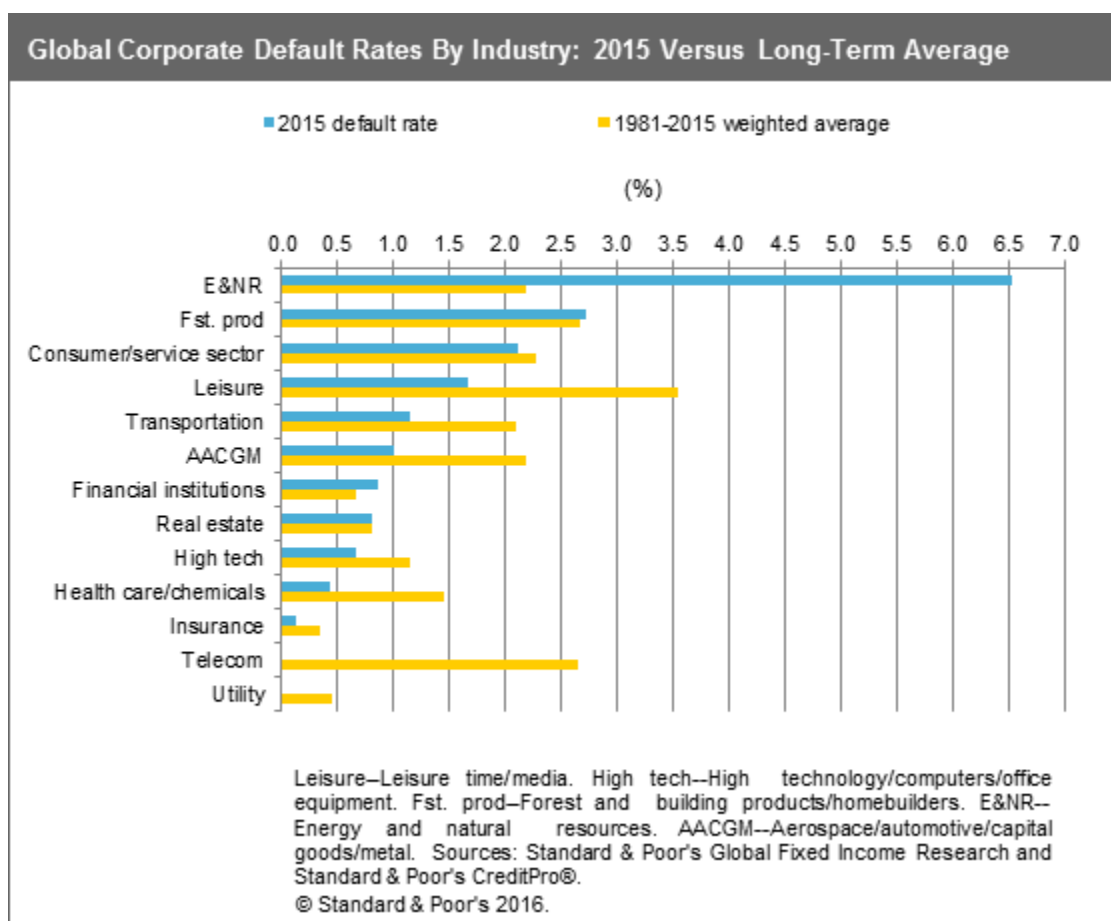
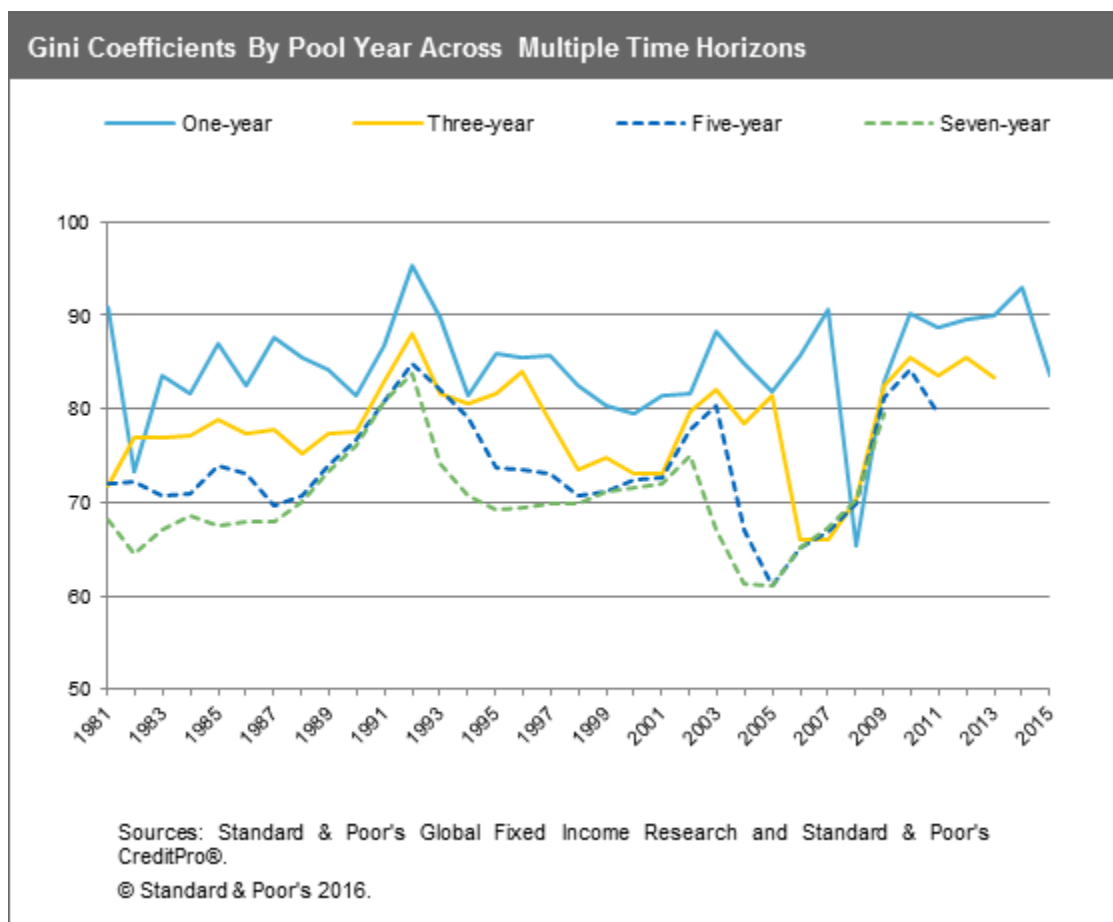


Chart 2



The Gini ratios are a measure of the rank-ordering power of ratings over a given time horizon--one through seven years (see chart 3). It shows the ratio of actual rank-ordering performance to theoretically perfect rank ordering.

Chart 3



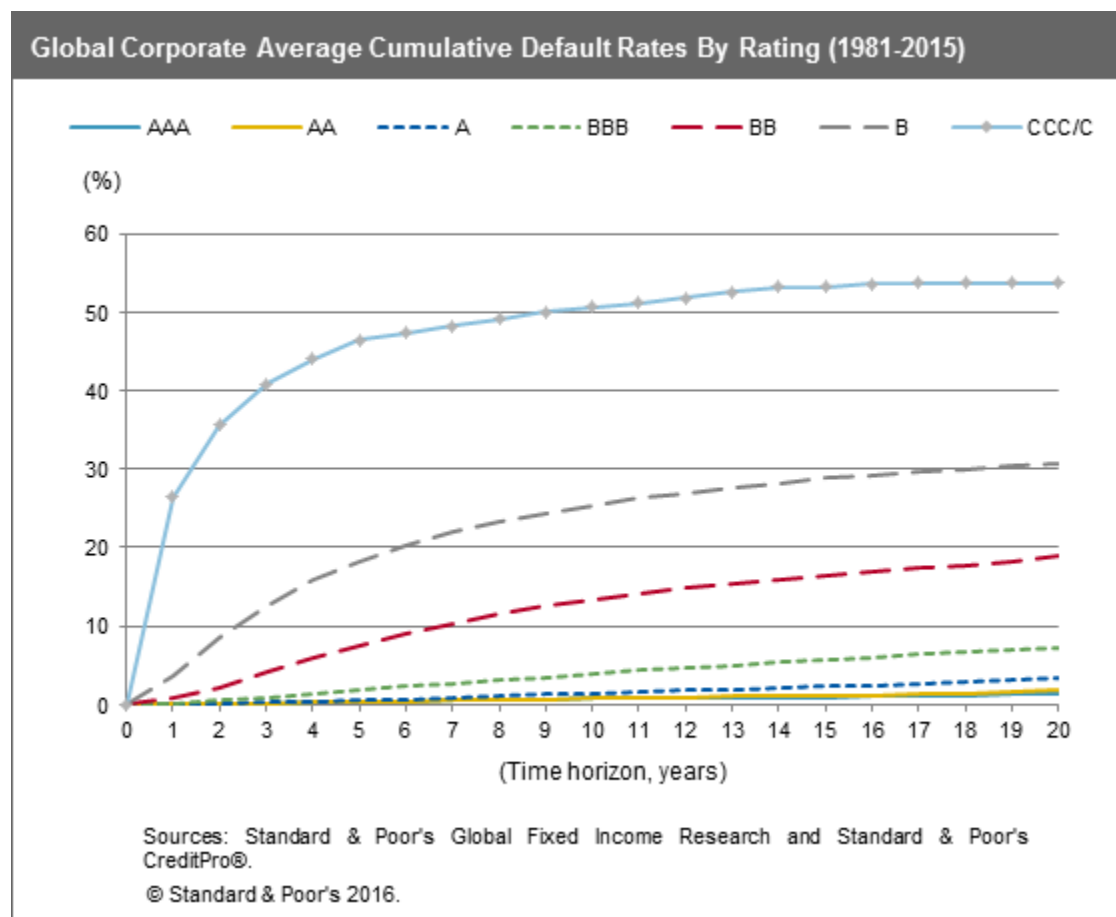
All of S&P Global Fixed Income Research's default studies have found a clear correlation between ratings and defaults: The higher the rating, the lower the observed frequency of default, and vice versa. Over each time span, lower ratings correspond to higher default rates (see chart 4 and chart 25). We found that the same is true when we broke out the data by rating (see table 24 and table 26), as well as by region (see table 25). As the Gini ratios show, the ability of corporate ratings to serve as an effective measure of relative risk remains intact, particularly in low-default years. Many default studies, including this one, also look at transition rates, which gauge the degree to which ratings change--either up or down--over a particular time. Transition studies have repeatedly confirmed that higher ratings tend to be more stable and that speculative-grade ratings generally experience more volatility. However, since the financial downturn of 2008 onward, many highly rated companies have been downgraded, leaving, for example, very few 'AAA' rated issuers at the start of 2015. As such, rating categories with smaller populations will experience high rating transition rates when even a small number of issuers experience upgrades or downgrades.

**Table 2**

Sector	--Time horizon--			
	One-year	Three-year	Five-year	Seven-year
<b>Global</b>				
Weighted average	82.02	75.30	71.79	69.57
Average	84.82	78.28	73.88	70.36
Standard deviation	(5.53)	(5.27)	(5.63)	(5.14)
<b>Financial</b>				
Weighted average	78.84	68.05	60.55	55.63
Average	80.90	73.83	64.96	58.20
Standard deviation	(19.81)	(14.69)	(15.56)	(14.00)
<b>Nonfinancial</b>				
Weighted average	80.62	73.41	70.23	68.37
Average	84.16	77.15	73.11	69.83
Standard deviation	(6.19)	(5.39)	(5.69)	(5.24)

Note: Numbers in parentheses are standard deviations. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Chart 4**





All but two of the rated defaulters in 2015 began the year among the lowest rating categories--'B' and 'CCC'/'C' (see table 3). The 'CCC'/'C' category accounted for a plurality of defaulters with active ratings at the beginning of 2015 (47%), but the 'B' and 'BB' categories accounted for larger proportions of the pool of defaulters than in very recent years (see table 4). The 'B' rating category's default rate was 2.4%, which is the highest level since 2009, while the 'BB' category recorded a 0.16% default rate, after not producing a default in 2014. Once again, the default rate in the 'AAA' rating category was zero, which maintains the unblemished default record for corporate ratings in this category and is consistent with historical trends. Finally, for the fourth year in a row, there were no investment-grade-rated defaults.

**Table 3**

Global Corporate Annual Default Rates By Rating Category (%)							
	AAA	AA	A	BBB	BB	B	CCC/C
1981	0.00	0.00	0.00	0.00	0.00	2.27	0.00
1982	0.00	0.00	0.21	0.34	4.22	3.13	21.43
1983	0.00	0.00	0.00	0.32	1.16	4.58	6.67
1984	0.00	0.00	0.00	0.66	1.14	3.41	25.00
1985	0.00	0.00	0.00	0.00	1.48	6.47	15.38
1986	0.00	0.00	0.18	0.33	1.31	8.36	23.08
1987	0.00	0.00	0.00	0.00	0.38	3.08	12.28
1988	0.00	0.00	0.00	0.00	1.05	3.63	20.37
1989	0.00	0.00	0.18	0.60	0.72	3.38	33.33
1990	0.00	0.00	0.00	0.58	3.57	8.56	31.25
1991	0.00	0.00	0.00	0.55	1.69	13.84	33.87
1992	0.00	0.00	0.00	0.00	0.00	6.99	30.19
1993	0.00	0.00	0.00	0.00	0.70	2.62	13.33
1994	0.00	0.00	0.14	0.00	0.28	3.08	16.67
1995	0.00	0.00	0.00	0.17	0.99	4.58	28.00
1996	0.00	0.00	0.00	0.00	0.45	2.91	8.00
1997	0.00	0.00	0.00	0.25	0.19	3.51	12.00
1998	0.00	0.00	0.00	0.41	0.82	4.63	42.86
1999	0.00	0.17	0.18	0.20	0.95	7.29	33.33
2000	0.00	0.00	0.27	0.37	1.15	7.70	35.96
2001	0.00	0.00	0.27	0.34	2.96	11.53	45.45
2002	0.00	0.00	0.00	1.01	2.88	8.21	44.44
2003	0.00	0.00	0.00	0.23	0.58	4.07	32.73
2004	0.00	0.00	0.08	0.00	0.44	1.45	16.18
2005	0.00	0.00	0.00	0.07	0.31	1.74	9.09
2006	0.00	0.00	0.00	0.00	0.30	0.82	13.33
2007	0.00	0.00	0.00	0.00	0.20	0.25	15.24
2008	0.00	0.38	0.39	0.49	0.81	4.08	27.27
2009	0.00	0.00	0.22	0.55	0.75	10.91	49.46
2010	0.00	0.00	0.00	0.00	0.58	0.85	22.73
2011	0.00	0.00	0.00	0.07	0.00	1.66	16.42
2012	0.00	0.00	0.00	0.00	0.30	1.56	27.33
2013	0.00	0.00	0.00	0.00	0.10	1.63	24.34

**Table 3**

**Global Corporate Annual Default Rates By Rating Category (%) (cont.)**

	AAA	AA	A	BBB	BB	B	CCC/C
2014	0.00	0.00	0.00	0.00	0.00	0.77	17.03
2015	0.00	0.00	0.00	0.00	0.16	2.39	25.73

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

**Table 4**

**Descriptive Statistics On One-Year Global Default Rates (%)**

	AAA	AA	A	BBB	BB	B	CCC/C
Minimum	0.00	0.00	0.00	0.00	0.00	0.25	0.00
Maximum	0.00	0.38	0.39	1.01	4.22	13.84	49.46
Weighted long-term average	0.00	0.02	0.06	0.19	0.73	3.77	26.36
Median	0.00	0.00	0.00	0.07	0.70	3.41	23.08
Standard deviation	0.00	0.07	0.11	0.26	1.02	3.33	11.83
2008 default rates	0.00	0.38	0.39	0.49	0.81	4.08	27.27
Latest four quarters (Q1 2015-Q4 2015)	0.00	0.00	0.00	0.00	0.16	2.39	25.73
Difference between last four quarters and weighted average	0.00	(0.02)	(0.06)	(0.19)	(0.57)	(1.38)	(0.63)
Number of standard deviations	0.00	(0.30)	(0.60)	(0.73)	(0.56)	(0.41)	(0.05)

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

## 2015 Summary

Below are some of our key findings for 2015:

- By count, the U.S. and associated tax havens (Bermuda and the Cayman Islands) accounted for 66 of defaults in 2015, emerging markets had 26 defaults, Europe produced 16, and the other developed nations had the fewest, at five.
- Distressed exchanges accounted for the largest share of defaults in 2015 (34.5%), with missed interest and/or principal payments coming in close behind at 33.6%. Chapter 7, Chapter 11, and Chapter 15 filings together accounted for another 19.5%.
- As of Dec. 31, 2015, 12-month-trailing speculative-grade default rates had risen across most regions from a year earlier. The global speculative-grade default rate was 2.8% at the end of 2015, from 2.3% in 2014. By region, default rates were 2.83% in the U.S., 2.1% in Europe, and 3.1% in the emerging markets (see table 7). Meanwhile the default rate for other developed nations held steady at 2.8%.
- All of the 94 defaulters that we rated at the beginning of the year had speculative-grade ratings ('BB+' or lower) at that time. The remainder of the 2015 defaulters began the year without active ratings or were first assigned ratings later in the year. None began the year rated investment grade.
- Of the entities that defaulted in 2015 (and that had ratings as of Jan. 1, 2015), we rated 65% 'B-' or lower at the start of the year.
- The overall volume of debt affected by 2015's defaulters was relatively smaller than would be expected historically. The largest defaulter in 2015 based on outstanding debt volume was Arch Coal Inc. It missed interest payments on Dec. 22 on its senior unsecured notes, and S&P Global Ratings believed they would not be paid within the 30-day grace period. At the time, the company had a total of \$6 billion in debt outstanding, which was the smallest amount

of debt outstanding for the largest annual defaulter in the last eight years.

- Markets contracted noticeably in the second half of 2015 on global financial and economic concerns, and corporate bonds in the U.S. experienced losses for the year as a result. By year-end, speculative-grade bonds in the U.S. fell 2.8%, after posting a gain of 4.1% through May 31. Investment-grade bonds saw a steadier, slower pace of decline through most of the year, ultimately coming in at a loss of 0.7%.
- The market jitters of the second half of the year pushed borrowing costs higher and prompted a flight to safety, causing a large contraction in the amount of new issuance in 2015. The total amount of annual new issuance fell to \$3.25 trillion (over 9,572 issues) from the 2014 high of \$3.76 trillion (11,933 issues).
- As a further reflection of increased risk associated with corporate bonds amid the chaotic market environment in the second half of the year, spreads on both investment-grade and speculative-grade U.S. corporate bonds shot up, pushing the five-year speculative-grade spread to 631 basis points (bps) from 491 bps in early June, while the 10-year investment-grade spread ended 2015 at 188 bps, compared with 146 bps in early March.
- The outstanding debt volume affected by defaults rose in 2015 to \$110.3 billion from \$91.6 billion in 2014. This increase was largely the result of the even larger rise in the number of defaulters, though, on average, the amount of debt affected per defaulter was much smaller than in 2014 (see chart 6).
- Overall ratings stability dropped in 2015, but only back to historical averages after it reached a higher level in 2014. While having declined somewhat overall, stability rates by rating category are still high by historical averages and continue to demonstrate a positive correlation with ratings.
- The percentage of defaulters with confidential ratings plummeted in 2015 to the lowest level since 2004. Of the 113 defaulters, seven had confidential issuer credit ratings, constituting 6.2% of the total. In 2014, confidentially rated issuers accounted for 11.7%.
- Eight of the defaulters in 2015 were initially rated 'BBB-' or higher, and the other 105 (92.9% of the total) had initial ratings of 'BB+' or lower.
- Of the defaulted entities in 2015 that S&P Global Ratings initially rated investment grade, the average time to default--the time between first rating and date of default--was 19.2 years, with an associated standard deviation of 6.6 years.
- In contrast, the average time to default among entities initially rated 'BB+' or lower was 5.25 years, with an associated standard deviation of 5.9 years.
- For all of the issuers that defaulted in 2015, the average time to default from first rating was 6.2 years, with a median of 3.9 years and a standard deviation of 6.9 years.
- The issuer with the longest time to default in 2015 was U.S.-based Standard Register Co., which took 34.2 years to default from its initial rating of 'A-'. U.S.-based RadioShack Corp.'s time to default was just one month shorter, and it had an initial rating of 'BB'.
- At the opposite end of the spectrum, the issuer with the shortest time to default, at just five days, was U.S.-based EXCO Resources Inc. This was the second time in less than two weeks that the company exercised a distressed exchange. We consider companies that reemerge from default--including distressed exchanges--as new entities for the purposes of this study.
- Alongside the overall increase in defaults in 2015, nearly every sector experienced at least one default, with the exception of telecommunications. The industry with the largest number of defaulters last year was energy and natural resources, with 44, or 39% of the total. This is the second year in a row that the sector contributed the most to the total.
- At the issuer level, S&P Global Ratings assigned first ratings on 658 entities in 2015, down substantially from 913 in 2014. Both the investment-grade and speculative-grade segments saw declines in the number of newly rated issuers in 2015, though the speculative-grade segment's drop in the number of newly assigned ratings from 2014 was 33%, more substantial than the 12% for investment grade.

## Annual Global Trends

The number of defaulters that began the year with active ratings in 2015 was significantly higher than in 2014 (see chart 5), and the amount of affected debt also rose, by just under \$19 billion (see chart 6). Consistent with historical trends, the U.S. accounted for the majority of defaults--by both count and amount of affected debt in 2015. This is mostly attributable to the larger rated population in the U.S. (roughly 47% of the global total at the start of 2015). However, emerging markets have had an increasing percentage of defaulters in recent years, accounting for about one-fifth to one-quarter of all defaults annually.

Alongside an increase in default activity in 2015, the proportion of upgrades fell, and the proportion of downgrades increased (see table 6). With the downgrade ratio finishing at 11.8% and the upgrade ratio at 7.4%, the downgrade-to-upgrade ratio moved back to over parity, to 1.6, after dipping below 1 the prior year. A ratio of 1 indicates that the percentage of upgrades and the percentage of downgrades is equal. In every month of 2015, downgrades outpaced upgrades--by an average of more than 41 issuers--and the gap widened substantially in the last four months of the year. Downgrades totaled 145 in September, with about half of those being the result of the sovereign downgrades of Brazil and Japan during the month.

**Table 5**

Largest Global Rated Defaulters By Year		
Largest corporate defaulters by outstanding debt amount		
Year defaulted	Issuer	Amount (mil. \$)
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
2006	Pliant Corp.	1,644
2007	Movie Gallery Inc.	1,225
2008	Lehman Brothers Holdings Inc.	144,426
2009	Ford Motor Co.	70,989
2010	Energy Future Holdings Corp.	47,648
2011	Texas Competitive Electric Holdings Co. LLC	32,460
2012	BTA Bank J.S.C.	10,184
2013	Texas Competitive Electric Holdings Co. LLC	31,628
2014	Texas Competitive Electric Holdings Co. LLC	28,651

**Table 5**

**Largest Global Rated Defaulters By Year (cont.)**

**Largest corporate defaulters by outstanding debt amount**

Year defaulted	Issuer	Amount (mil. \$)
2015	Arch Coal Inc.	6,025

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

**Chart 5**

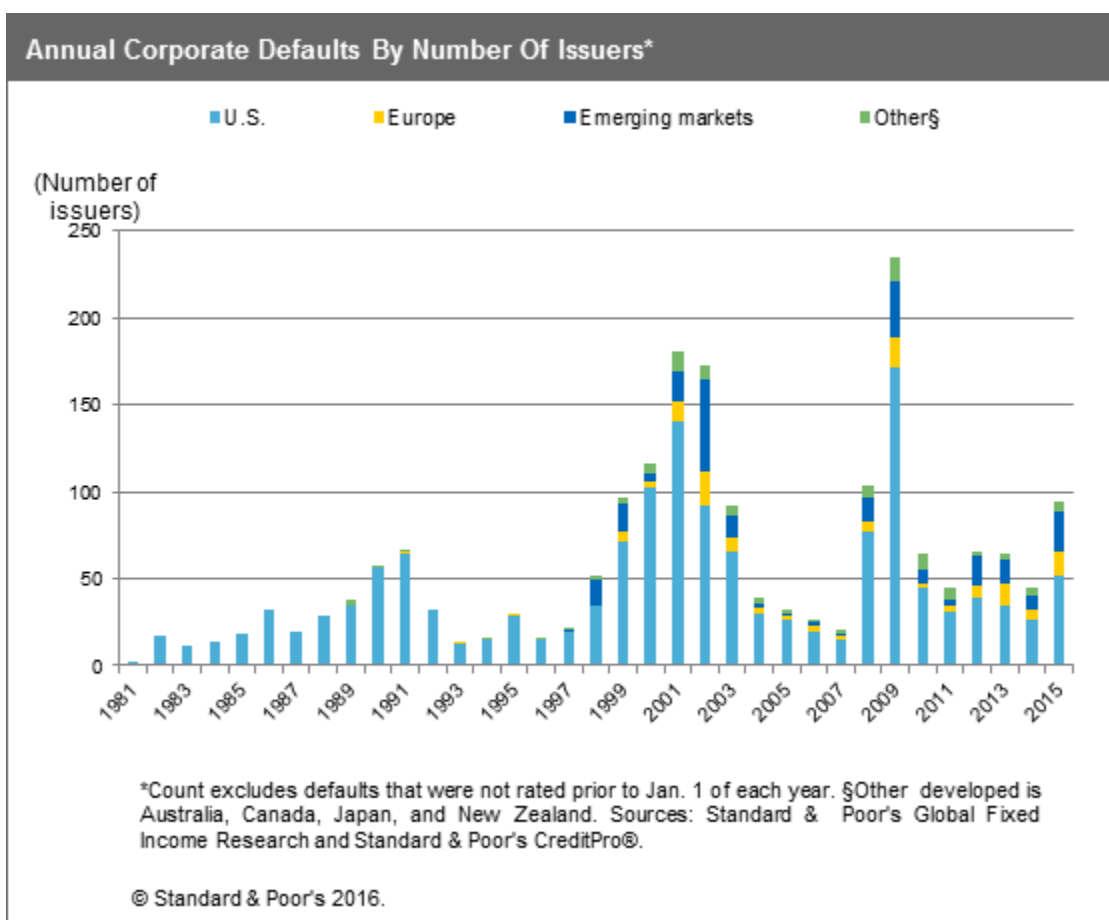


Chart 6

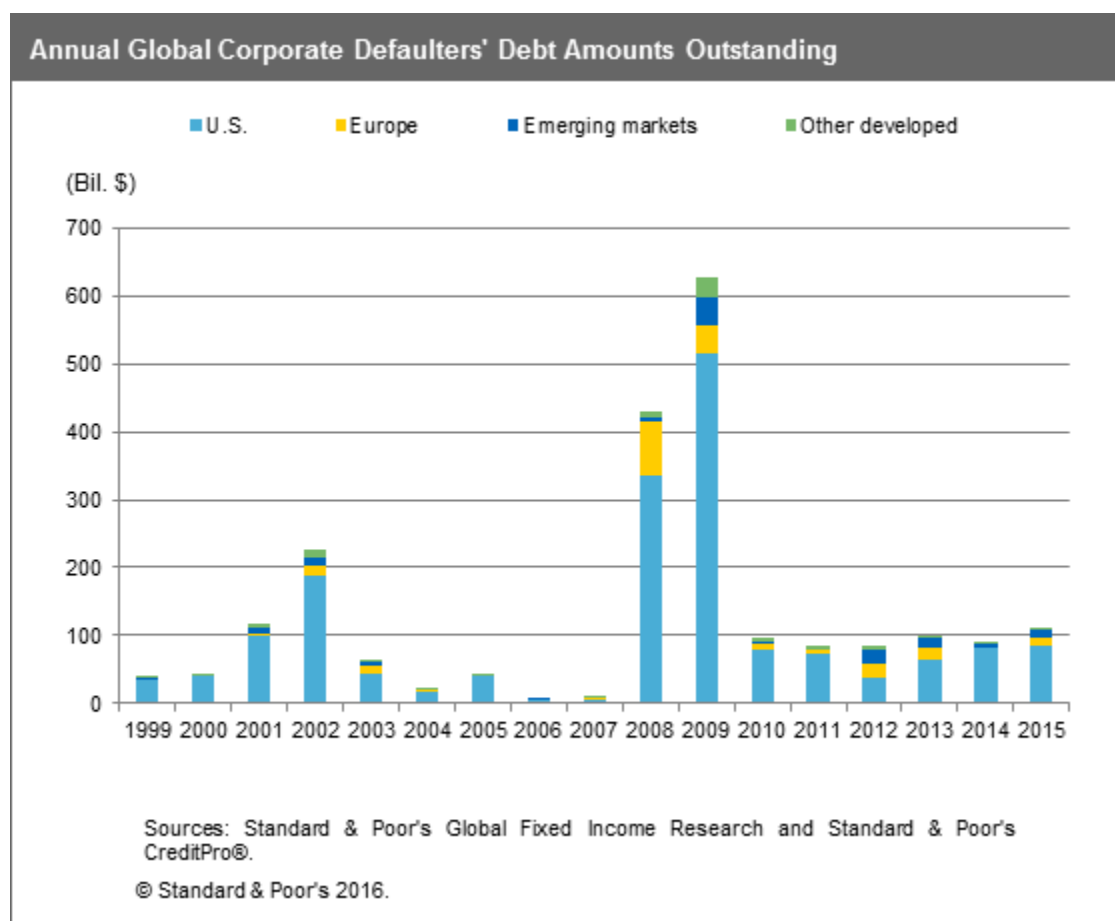


Table 6

**Summary Of Annual Corporate Rating Changes (%)\***

Year	Issuers as of Jan. 1	Upgrades	Downgrades\$	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
1981	1,383	9.76	13.30	0.14	2.02	25.23	74.77	1.36
1982	1,431	5.87	12.65	1.19	5.38	25.09	74.91	2.15
1983	1,452	7.09	11.78	0.76	5.23	24.86	75.14	1.66
1984	1,539	11.24	10.07	0.91	2.86	25.08	74.92	0.90
1985	1,626	7.87	13.78	1.11	4.06	26.81	73.19	1.75
1986	1,862	7.25	15.79	1.72	6.82	31.58	68.42	2.18
1987	2,015	7.20	11.86	0.94	9.23	29.23	70.77	1.65
1988	2,103	8.89	11.89	1.38	8.18	30.34	69.66	1.34
1989	2,141	9.67	10.98	1.77	7.99	30.41	69.59	1.14
1990	2,125	6.16	15.25	2.73	6.54	30.68	69.32	2.47
1991	2,060	6.02	14.32	3.25	3.54	27.14	72.86	2.38
1992	2,143	9.57	11.48	1.49	3.97	26.50	73.50	1.20
1993	2,326	8.56	9.24	0.60	8.34	26.74	73.26	1.08
1994	2,558	7.08	9.34	0.63	4.61	21.66	78.34	1.32

**Table 6**

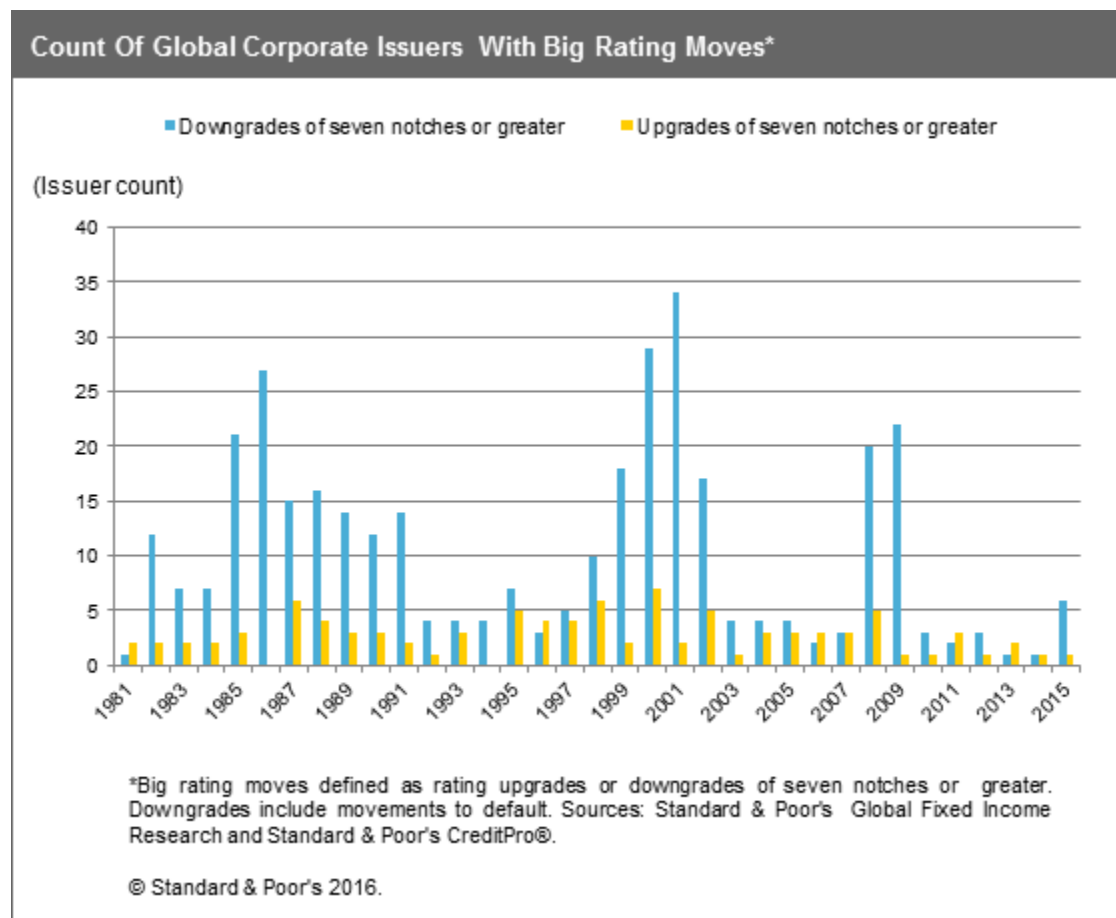
Summary Of Annual Corporate Rating Changes (%)* (cont.)								
Year	Issuers as of Jan. 1	Upgrades	Downgrades§	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
1995	2,868	9.07	9.87	1.05	4.60	24.58	75.42	1.09
1996	3,128	9.72	7.80	0.51	7.03	25.06	74.94	0.80
1997	3,490	9.20	7.94	0.63	7.56	25.33	74.67	0.86
1998	4,078	7.53	11.60	1.28	7.99	28.40	71.60	1.54
1999	4,529	5.92	12.06	2.14	9.05	29.17	70.83	2.04
2000	4,680	6.88	12.65	2.48	7.14	29.15	70.85	1.84
2001	4,756	5.99	16.61	3.78	7.57	33.96	66.04	2.77
2002	4,784	5.20	19.19	3.60	7.23	35.22	64.78	3.69
2003	4,782	6.46	14.60	1.92	7.34	30.32	69.68	2.26
2004	5,017	8.79	7.59	0.78	7.26	24.42	75.58	0.86
2005	5,307	12.85	9.21	0.60	8.52	31.19	68.81	0.72
2006	5,461	12.31	8.75	0.48	8.77	30.31	69.69	0.71
2007	5,646	13.51	9.30	0.37	10.63	33.81	66.19	0.69
2008	5,729	7.92	16.01	1.80	7.72	33.44	66.56	2.02
2009	5,616	4.81	19.12	4.18	8.89	37.00	63.00	3.98
2010	5,310	11.96	8.78	1.21	6.53	28.47	71.53	0.73
2011	5,629	12.24	11.97	0.80	7.85	32.87	67.13	0.98
2012	5,805	8.44	12.30	1.14	6.91	28.79	71.21	1.46
2013	6,041	11.41	9.39	1.06	6.74	28.59	71.41	0.82
2014	6,488	9.20	8.46	0.69	7.15	25.51	74.49	0.92
2015	6,906	7.43	11.79	1.36	8.36	28.93	71.07	1.59
Weighted average		8.78	11.84	1.49	7.36	29.46	70.54	1.56
Average		8.54	11.91	1.44	6.85	28.74	71.26	1.57
Median		8.44	11.79	1.14	7.23	28.79	71.21	1.36
Standard deviation		2.30	3.05	1.02	1.95	3.52	3.52	0.81
Minimum		4.81	7.59	0.14	2.02	21.66	63.00	0.69
Maximum		13.51	19.19	4.18	10.63	37.00	78.34	3.98

\*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®.

Ratings stability--as measured by the percentage of issuers with unchanged ratings--dropped somewhat in 2015. With this decline, the magnitude of absolute rating changes rose. The number of corporate issuers that experienced a rating change of more than six notches in 2015 jumped to a six-year high of seven--six of these were downgrades (see chart 7). Here, we include movements to 'D' as well as what we normally report as downgrades (downward movements between active ratings). All of the large downgrades within this measure were movements to default, with five possessing a rating in the 'B' category just prior to default, and the sixth--Kaisa Group Holdings Ltd.--defaulting from a 'BB-' rating. The last time an entity defaulted from the 'BB' rating category was on Dec. 4, 2008 (Commonwealth Land

Title Insurance Co.).

**Chart 7**



Most of the major regions saw increases in their annual speculative-grade default rates in 2015 (see table 7 and chart 21). Although, the default rate in the other developed region (consisting of Australia, Canada, Japan, and New Zealand) remained steady at 2.8%. Default activity in 2015 increased relative to the last few years but, in general, remained below long-term averages. However, these averages are often biased by the high default rates that occur in peak years (1991, 2001/2002, and 2009). On the other hand, when comparing 2015's default rates across the major regions to their long-term medians, Europe and emerging markets are now above these longer-term measures, and the other developed countries have now hit that level.

**Table 7**

Annual Corporate Speculative-Grade Default Rate By Geographic Region (%)				
Year	U.S. and tax havens*	Europe§	Emerging markets	Other†
1981	0.63	0.00	N/A	0.00
1982	4.44	0.00	N/A	0.00
1983	2.99	0.00	N/A	0.00
1984	3.33	0.00	0.00	0.00
1985	4.41	0.00	N/A	0.00



**Table 7**

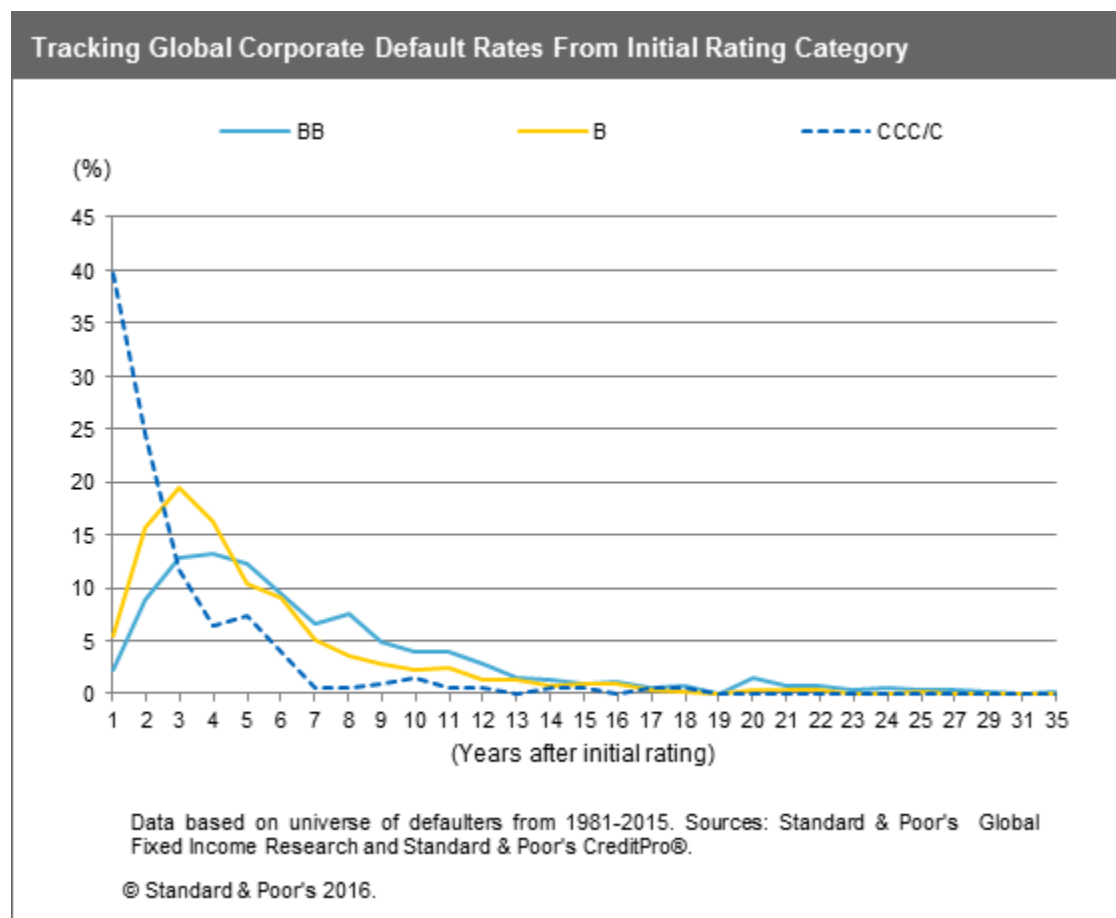
Annual Corporate Speculative-Grade Default Rate By Geographic Region (%) (cont.)				
Year	U.S. and tax havens*	Europe§	Emerging markets	Other†
1986	5.76	0.00	N/A	0.00
1987	2.84	0.00	N/A	0.00
1988	3.89	0.00	N/A	0.00
1989	4.33	0.00	N/A	42.86
1990	7.94	0.00	N/A	33.33
1991	10.73	66.67	N/A	14.29
1992	6.25	0.00	N/A	0.00
1993	2.40	20.00	0.00	0.00
1994	2.20	0.00	0.00	0.00
1995	3.65	9.09	0.00	0.00
1996	1.85	0.00	0.00	2.70
1997	2.17	0.00	0.00	1.92
1998	3.25	0.00	8.55	1.43
1999	5.25	6.25	7.66	4.40
2000	7.38	2.52	1.66	6.52
2001	10.62	8.33	6.27	12.36
2002	7.26	12.41	17.55	5.94
2003	5.60	3.66	3.90	4.76
2004	2.45	1.60	0.84	1.99
2005	2.02	0.94	0.24	1.30
2006	1.37	1.79	0.44	0.76
2007	1.02	0.96	0.20	2.24
2008	4.28	2.50	2.41	3.79
2009	11.72	8.67	5.46	9.60
2010	3.44	1.01	1.55	7.96
2011	2.14	1.59	0.47	6.14
2012	2.64	2.24	2.62	2.33
2013	2.17	3.43	2.00	1.97
2014	1.60	0.97	1.05	2.82
2015	2.83	2.10	3.07	2.79
Average	4.20	3.05	3.30	4.19
Median	3.33	1.94	1.83	2.81
Standard deviation	2.79	3.33	4.23	3.07
Minimum	0.63	0.00	0.00	0.76
Maximum	11.72	12.41	17.55	12.36

Note: Descriptive statistics for regions other than U.S. calculated from 1996 to 2015 due to sample size considerations. \*U.S., Bermuda, and Cayman Islands. §Austria, Belgium, British Virgin Islands, Bulgaria, Channel Islands, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Gibraltar, Greece, Guernsey, Hungary, Iceland, Ireland, Isle of Man, Italy, Jersey, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and U.K. †Australia, Canada, Japan, and New Zealand. N/A--Not available. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Data on defaulted corporate issuers globally indicate that defaults among speculative-grade entities tend to be

clustered in the third year after the initial rating, particularly in the 'B' rating category (see chart 8). For example, among defaulters that were rated 'B' at origination, the default rate climbs to a high of 19.5% in the first three years and then decelerates thereafter. Defaulted issuers initially rated 'BB' show a similar pattern but peak a little later—in the fourth year. Conversely, defaulters initially rated 'CCC' show the reverse, with the highest default rate observed in the first year, which is not surprising given the low rating.

**Chart 8**



In 2015, 105 (or 92.9%) of the 113 defaulted entities were originally rated speculative grade, which is more than six percentage points higher than the long-term average of 86.4%. This is typical in years with lower default rates and is reflected in the rating path observed for defaulters in the trailing 12 quarters (see chart 9). The median rating for all recently defaulted entities was solidly in the speculative-grade category in the seven years preceding default, and at any time during that period, it was at least one notch below that of the long-term equivalent.

Financial institutions and insurance companies are particularly sensitive to sudden declines in investor confidence, which can result in a relatively fast descent into default (see chart 10). This was especially evident during the recent financial crisis, when many highly rated banks defaulted within a short amount of time from their initial downgrades. However, now that about seven years have passed since the crisis, even the recent defaulters among financials had a speculative-grade median rating seven years prior to default. In contrast, nonfinancial defaulters travel a much slower,

smoother, and shorter path to default (see chart 11). A major difference between financials and nonfinancials is the incidence of default. Defaults are much less frequent for financial companies than they are among nonfinancials, which can also allow outliers to bias the averages. For instance, in the three years ended Dec. 31, 2015, 229 nonfinancial companies defaulted, while only 25 financials did. This helps to explain the more volatile path to default among financial institutions and insurance companies.

**Chart 9**

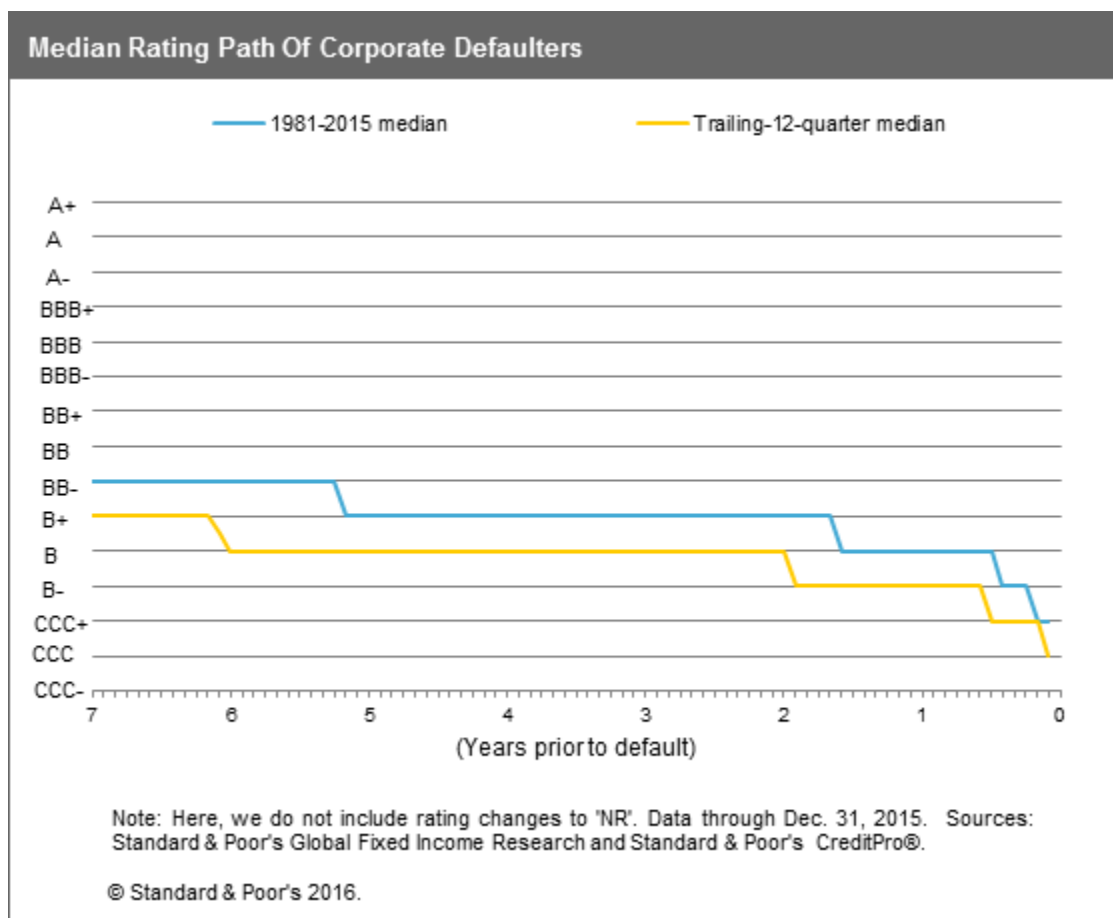


Chart 10

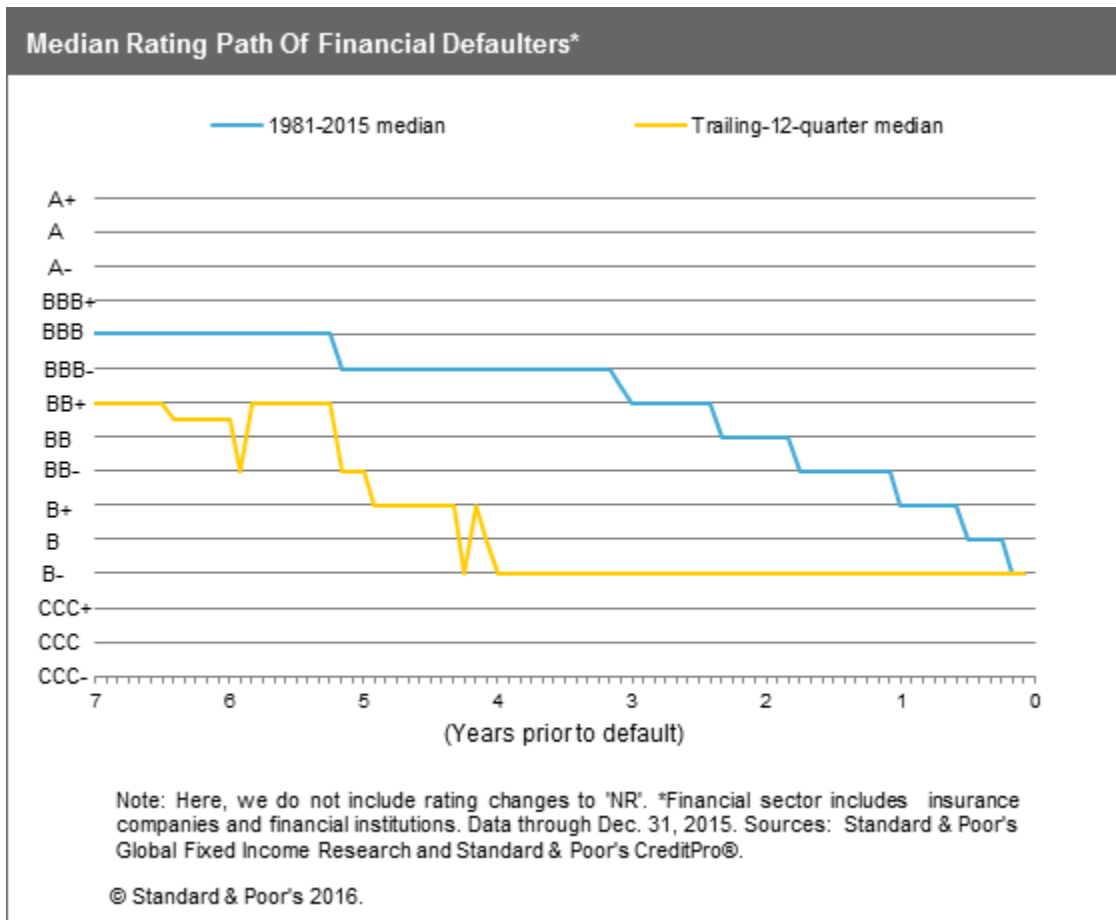
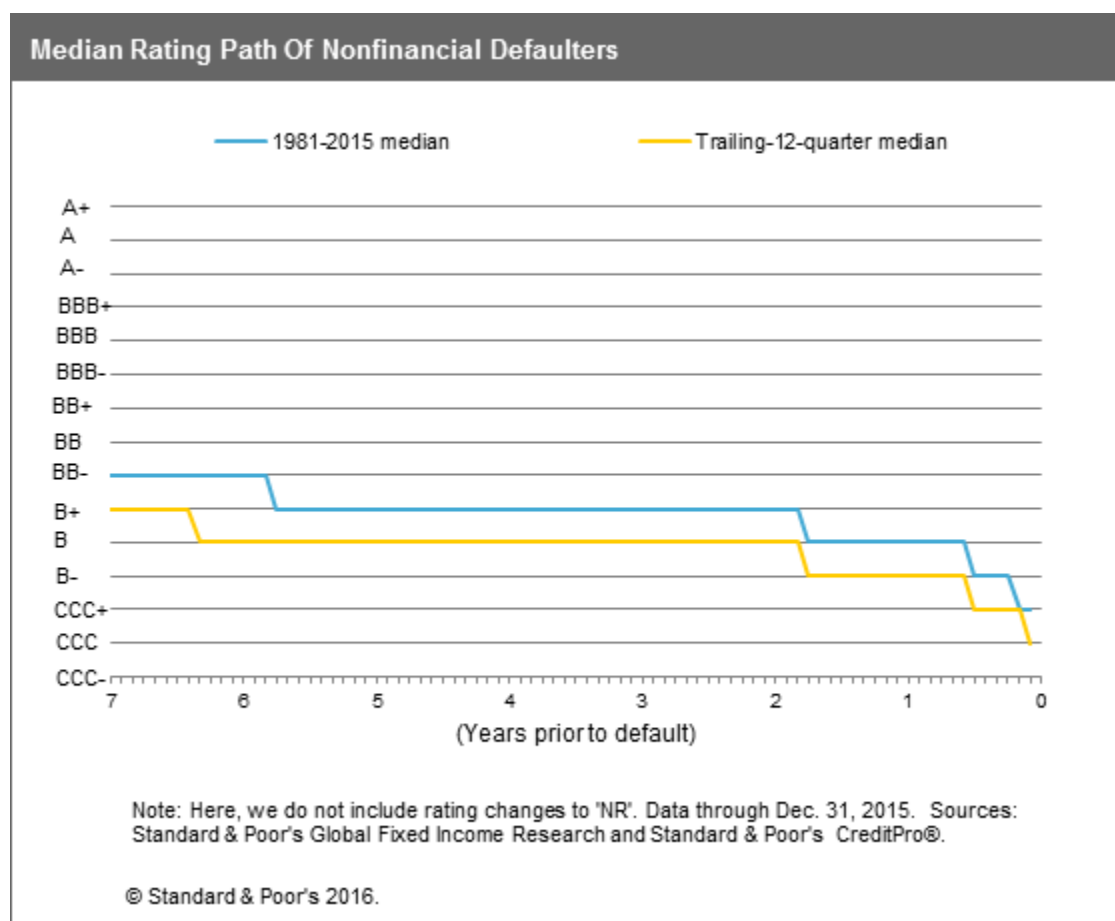


Chart 11



Some issuers default when S&P Global Ratings no longer rates them. We make our best effort to capture such defaults in the database, and we include them in the annual default rate calculations if an entity was rated as of Jan. 1 in the year of default. If, however, S&P Global Ratings withdrew the rating prior to Jan. 1 of the year of default, we did not include the issuer in the default rate calculation in that year. Of the 113 defaulted companies in 2015, 10.6% were not rated just prior to default, which is noticeably lower than the long-term total of 18.1% (see chart 12). Furthermore, although 'NR' defaulters are not always captured in the default rate calculation for the year of default, we do capture them in the longer-term cumulative default rate statistics, tied back to the year in which they were last rated. All of the defaulters in 2015 that had active ratings immediately prior to default were rated in the lowest rating categories. In particular, 73.5% were rated 'CCC+' or lower just prior to default, which is much higher than the 65.2% long-term total.

Chart 12a

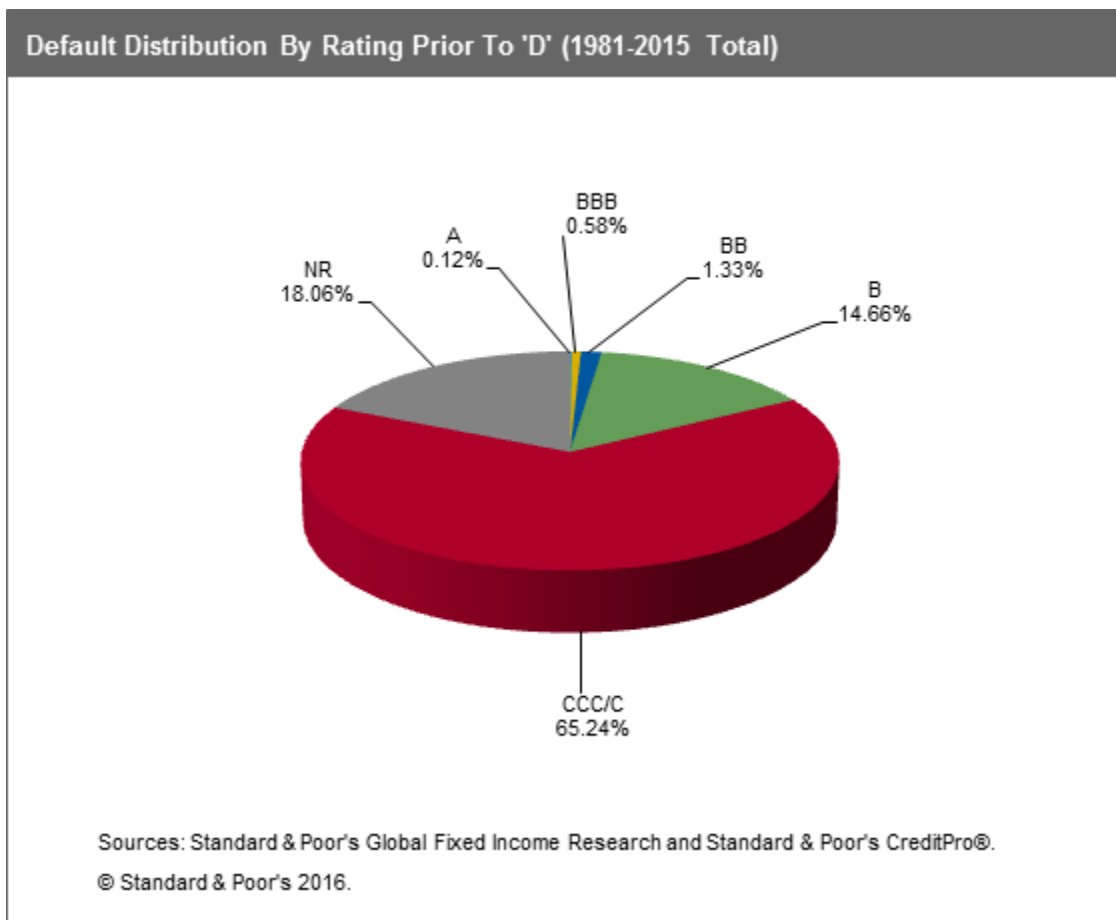


Chart 12b

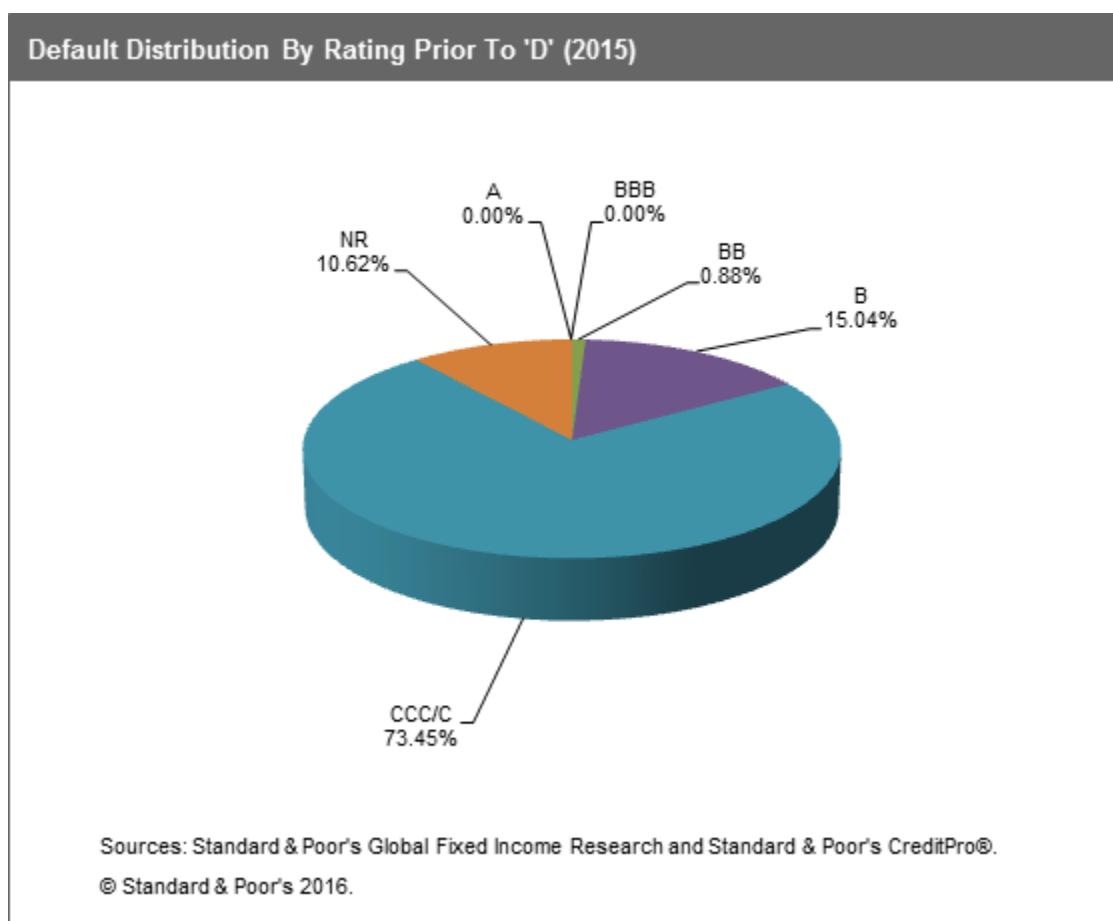


Table 8 provides a list of all the defaulted, publicly rated companies recorded in 2015. For additional details on the 2015 defaulters, see Appendix III.

Table 8

2015 Global Publicly Rated Corporate Defaults									
Company name	Reason for default	Country	Industry	Debt amount (mil.\$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Kaisa Group Holdings Ltd.	Missed principal or interest	Cayman Islands	Forest and building products/homebuilders	2,832.6	1/5/2015	B+	B+	BB-	4/12/2010
OAS S.A.	Missed principal or interest	Brazil	Aerospace/auto/capital goods/metal	1,934.8	1/7/2015	BB-		BB-	9/17/2012
Renhe Commercial Holdings Co. Ltd.	Distressed exchange	Cayman Islands	Real estate	900.0	1/8/2015	CCC	BB-	BB	4/27/2010
Verso Paper Holdings LLC	Distressed exchange	U.S.	Forest and building products/homebuilders	1,428.0	1/8/2015	B-		B	5/14/2012

Table 8

2015 Global Publicly Rated Corporate Defaults (cont.)									
Company name	Reason for default	Country	Industry	Debt amount (mil.\$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Virgolino de Oliveira S.A. - Acucar e Alcool	Missed principal or interest	Brazil	Consumer/service	735.0	1/14/2015	B	B	B	1/12/2011
Talon PIKco N.V.	Distressed exchange	Belgium	Leisure time/media	0.0	1/29/2015	CCC	CCC+	B-	12/2/2010
Connacher Oil and Gas Ltd.	Distressed exchange	Canada	Energy and natural resources	825.8	2/2/2015	CCC+	B	B+	9/6/2006
Corporate Risk Holdings LLC	Chapter 11	U.S.	Consumer/service	3,137.0	2/3/2015			CCC+	7/4/2014
Afren PLC	Missed principal or interest	U.K.	Energy and natural resources	1,160.0	2/4/2015	B+	B	B-	11/26/2010
RadioShack Corp.	Chapter 11	U.S.	Consumer/service	325.0	2/6/2015	CCC+	BB-	BB	12/31/1980
Bank Tavrichesky	Missed principal or interest	Russian Federation	Financial institutions	0.0	2/18/2015	B-		B-	5/29/2012
Commercial Bank Sudostroitelny Bank LLC	Missed principal or interest	Russian Federation	Financial institutions	0.0	2/18/2015	B		B	12/30/2013
Quicksilver Resources Inc.	Missed principal or interest	U.S.	Energy and natural resources	3,225.0	2/19/2015	CCC+	B+	BB-	3/3/2006
Norske Skogindustrier ASA	Distressed exchange	Norway	Forest and building products/homebuilders	1,263.4	2/27/2015	CCC+		CCC+	2/15/2013
BPZ Resources, Inc.	Missed principal or interest	U.S.	Energy and natural resources	150.0	3/4/2015			CCC+	10/2/2014
American Eagle Energy Corp.	Missed principal or interest	U.S.	Energy and natural resources	175.0	3/4/2015			CCC+	8/5/2014
Doral Financial Corp.	Chapter 11	U.S.	Financial Institutions	177.7	3/11/2015	CCC-	CCC+	BBB-	9/9/1996
Standard Register Co.	Chapter 11	U.S.	Leisure time/media	0.0	3/12/2015	NR	NR	A-	12/31/1980
UC Holdings Inc.	Chapter 11	U.S.	Aerospace/auto/capital goods/metal	525.0	3/12/2015	B-		B	11/14/2012
Allied Nevada Gold Corp	Chapter 11	U.S.	Energy and natural resources	312.8	3/18/2015	B		B	6/7/2012
Armtec Holdings Ltd.	Missed principal or interest	Canada	Forest and building products/homebuilders	119.2	3/23/2015	B-	B	BB-	9/1/2010
Sete Brasil Participacoes S.A	Missed principal or interest	Brazil	Energy and natural resources	573.7	3/23/2015	BB+		BB+	10/23/2012
EveryWare, Inc.	Chapter 11	U.S.	Consumer/service	0.0	4/1/2015	B		B	4/19/2012



**Table 8**

2015 Global Publicly Rated Corporate Defaults (cont.)									
Company name	Reason for default	Country	Industry	Debt amount (mil.\$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Liberty Tire Recycling Holdco LLC	Distressed exchange	U.S.	Health care/chemicals	225.0	4/3/2015	B-	B	B	9/16/2010
Venoco Inc.	Distressed exchange	U.S.	Energy and natural resources	965.0	4/3/2015	B-	B	B-	12/6/2004
Xinergy Corp.	Chapter 11	U.S.	Aerospace/auto/capital goods/metal	200.0	4/6/2015	NR	B-	B-	5/26/2011
RAAM Global Energy Co.	Missed principal or interest	U.S.	Energy and natural resources	438.4	4/7/2015	B-	B-	B-	8/6/2010
American Natural Resources Co.	Chapter 11	U.S.	Utility	0.0	4/13/2015	NR	NR	B+	8/24/1984
Walter Energy Inc.	Missed principal or interest	U.S.	Energy and natural resources	4,045.0	4/17/2015			CCC+	8/15/2014
Sabine Oil & Gas Corp.	Missed principal or interest	U.S.	Energy and natural resources	4,350.0	4/22/2015	B-	BB-	B	5/7/1993
Winsway Enterprises Holdings Ltd.	Missed principal or interest	British Virgin Islands	Transportation	309.0	4/27/2015	CCC		CCC	10/28/2013
Halcon Resources Corp.	Distressed exchange	U.S.	Energy and natural resources	3,700.0	5/1/2015	B		B-	6/25/2012
Magnetation LLC	Chapter 11	U.S.	Energy and natural resources	425.0	5/6/2015	B-		B-	5/7/2013
Patriot Coal Corp.	Chapter 11	U.S.	Energy and natural resources	500.0	5/14/2015	B		B	12/20/2013
Colt Defense LLC	Missed principal or interest	U.S.	Aerospace/auto/capital goods/metal	250.0	5/19/2015	CCC+	B-	B	8/1/2007
Far-Eastern Shipping Co. PLC	Distressed exchange	Russian Federation	Transportation	800.0	5/19/2015	B+		BB-	5/8/2013
SandRidge Energy Inc.	Distressed exchange	U.S.	Energy and natural resources	4,540.5	5/20/2015	B	B	B	3/8/2007
Tunica-Biloxi Gaming Authority	Missed principal or interest	U.S.	Leisure time/media	150.0	5/20/2015	B-	B+	B+	11/1/2005
Ceagro Agricola	Missed principal or interest	Brazil	Consumer/service	100.0	5/21/2015	B	B	B	10/4/2010
The State Administration of Railways Transport of Ukraine	Missed principal or interest	Ukraine	Transportation	500.0	5/21/2015	CCC	B-	B-	5/21/2012
Midstates Petroleum Co. Inc.	Distressed exchange	U.S.	Energy and natural resources	1,300.0	5/22/2015	B		B	9/6/2012

Table 8

2015 Global Publicly Rated Corporate Defaults (cont.)									
Company name	Reason for default	Country	Industry	Debt amount (mil.\$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Lupatech S.A.	Foreign bankruptcy	Brazil	Aerospace/auto/capital goods/metal	0.0	5/26/2015			CCC-	10/2/2014
Warren Resources, Inc.	Distressed exchange	U.S.	Energy and natural resources	500.0	5/27/2015	NR		B-	5/31/2013
Molycorp Inc.	Missed principal or interest	U.S.	Energy and natural resources	1,236.5	6/2/2015			CCC+	12/10/2014
Cimento Tupi S.A.	Missed principal or interest	Brazil	Forest and building products/homebuilders	150.0	6/11/2015	B	B	B	4/11/2011
Project Porsche Holdings Corp.	Distressed exchange	U.S.	High technology/computers/office equipment	0.0	6/15/2015	B		B	5/7/2014
Walter Energy Inc. §	Missed principal or interest	U.S.	Energy and natural resources	5,520.0	6/23/2015			CCC-	6/8/2015
American Energy - Woodford, LLC	Distressed exchange	U.S.	Energy and natural resources	350.0	6/25/2015			B-	9/4/2014
Alpha Bank A.E.	Regulatory directive	Greece	Financial institutions	1,184.0	6/30/2015	CCC+	CCC	BBB-	12/19/1997
Eurobank Ergasias S.A.	Regulatory directive	Greece	Financial institutions	1,992.1	6/30/2015	CCC+	CCC	BBB-	10/25/1999
National Bank of Greece S.A.	Regulatory directive	Greece	Financial institutions	722.4	6/30/2015	CCC+	CCC	BBB-	9/17/1997
Piraeus Bank S.A.	Regulatory directive	Greece	Financial institutions	944.2	6/30/2015	CCC+	CCC	BBB-	12/17/1999
Sharp Corp.	Distressed exchange	Japan	High technology/computers/office equipment	489.1	6/30/2015	B+	BBB+	A	11/20/2002
Ferrexpo PLC	Distressed exchange	U.K.	Energy and natural resources	632.7	7/6/2015	B-	B+	B+	6/30/2010
Lightstream Resources Ltd.	Distressed exchange	Canada	Energy and natural resources	335.0	7/9/2015	B+	B	B	1/18/2012
PT Berau Coal Energy Tbk.	Distressed exchange	Indonesia	Energy and natural resources	950.0	7/9/2015	BB-	BB-	B+	6/22/2010
Tonon Bioenergia S.A.	Distressed exchange	Brazil	Consumer/service	530.0	7/14/2015	B		B	1/7/2013
CORE Entertainment Inc.	Missed principal or interest	U.S.	Leisure time/media	360.0	7/17/2015	B	B	B	1/18/2012
Great Atlantic & Pacific Tea Co. Inc. (The)	Chapter 11	U.S.	Consumer/service	1,260.0	7/19/2015	CCC	B-	B-	3/20/2012
Hercules Offshore Inc.	Missed principal or interest	U.S.	Energy and natural resources	1,800.0	7/28/2015	B	B-	B-	6/7/2005

**Table 8**

2015 Global Publicly Rated Corporate Defaults (cont.)										
Company name	Reason for default	Country	Industry	Debt amount (mil.\$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating	
Coyne International Enterprises Corp.	Chapter 11	U.S.	Consumer/service	0.0	7/31/2015	NR	NR	B+	6/12/1998	
Alpha Natural Resources Inc.	Chapter 11	U.S.	Energy and natural resources	3,770.0	8/3/2015	B	BB-	BB-	7/8/2004	
ASG Consolidated LLC	Distressed exchange	U.S.	Consumer/service	235.0	8/11/2015	B-	B-	B+	10/12/2004	
Black Elk Energy Offshore Operations LLC	Chapter 11	U.S.	Energy and natural resources	150.0	8/11/2015	CCC+	B-	B-	11/4/2010	
SandRidge Energy Inc.§	Distressed exchange	U.S.	Energy and natural resources	4,725.0	8/14/2015			CCC+	5/28/2015	
Samson Resources Corp	Missed principal or interest	U.S.	Energy and natural resources	0.0	8/17/2015	B	B+	B+	1/31/2012	
Wilton Holdings Inc.	Distressed exchange	U.S.	Consumer/service	0.0	8/24/2015	B-	B	B	8/7/2012	
SAExploration Holdings, Inc.	Distressed exchange	U.S.	Energy and natural resources	150.0	8/27/2015	B-		B-	6/17/2014	
Halcon Resources Corp.§	Distressed exchange	U.S.	Energy and natural resources	3,900.0	8/28/2015			B-	6/22/2015	
Univita Health Inc.	Chapter 7	U.S.	Health care/chemicals	220.0	8/28/2015	NR	B	B	8/12/2011	
Investraderbank JSC	Regulatory directive	Russian Federation	Financial institutions	0.0	9/1/2015	B+		B+	10/14/2013	
Goodrich Petroleum Corp.	Distressed exchange	U.S.	Energy and natural resources	935.3	9/2/2015	B-	B	B	2/24/2011	
Quiksilver Inc.	Chapter 11	U.S.	Consumer/service	729.4	9/10/2015	B-	B	BB	6/30/2005	
PrivatBank		Ukraine	Financial institutions		9/23/2015	CCC	NR	B-	10/28/2003	
Edcon Holdings Ltd.	Distressed exchange	South Africa	Consumer/service	1,164.8	9/25/2015	B-	B-	B+	6/5/2007	
Floworks International LLC	Distressed exchange	U.S.	Energy and natural resources	250.0	9/29/2015	B-		B	10/22/2012	
Dex Media Inc.	Missed principal or interest	U.S.	Leisure time/media	300.0	10/1/2015	CCC+		B-	5/17/2013	
MMM Holdings Inc.	Missed principal or interest	U.S.	Insurance	480.0	10/2/2015	B+		B+	10/9/2012	
American Apparel Inc.	Chapter 11	U.S.	Consumer/service	200.0	10/5/2015	CCC-		B-	3/20/2013	
SandRidge Energy Inc.§	Distressed exchange	U.S.	Energy and natural resources	5,400.0	10/8/2015			CCC+	8/20/2015	
Affirmative Insurance Holdings Inc.	Chapter 11	U.S.	Insurance	0.0	10/14/2015	NR	NR	B	12/11/2006	

Table 8

2015 Global Publicly Rated Corporate Defaults (cont.)									
Company name	Reason for default	Country	Industry	Debt amount (mil.\$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Nota Bank	Regulatory directive	Russian Federation	Financial institutions	0.0	10/14/2015	B		B	6/13/2013
Logan's Roadhouse Inc.	Distressed exchange	U.S.	Consumer/service	30.0	10/20/2015	B-	B-	B-	11/1/2006
EXCO Resources Inc.	Distressed exchange	U.S.	Energy and natural resources	1,850.0	10/21/2015	B	B	B+	1/12/2004
NYDJ Apparel LLC	Distressed exchange	U.S.	Consumer/service	162.5	10/23/2015	B		B	12/13/2013
EXCO Resources Inc. §	Distressed exchange	U.S.	Energy and natural resources	966.0	11/3/2015			CCC+	10/29/2015
Vantage Drilling Co.	Missed principal or interest	U.S.	Energy and natural resources	1,950.0	11/3/2015	B-	B-	B-	7/23/2010
Hidili Industry International Development Ltd.	Missed principal or interest	Cayman Islands	Energy and natural resources	400.0	11/4/2015	CCC		CCC	10/23/2014
Globo PLC	Adiministration	U.K.	High technology/computers/office equipment	0.0	11/6/2015			BB-	6/19/2015
Affinion Group Holdings Inc.	Distressed exchange	U.S.	Leisure time/media	592.5	11/10/2015	CCC+		CCC+	6/12/2014
Essar Steel Algoma Inc.	Chapter 15	Canada	Energy and natural resources	1,002.0	11/11/2015			B-	11/17/2014
China Shanshui Cement Group Ltd.	Missed principal or interest	Hong Kong	Forest and building products/homebuilders	1,300.0	11/13/2015	B+	BB	BB	5/8/2011
Millennium Health LLC	Chapter 11	U.S.	Health care/chemicals	1,825.0	11/13/2015	B+		B+	3/28/2014
BANK URALSIB (PJSC)	Regulatory directive	Russian Federation	Financial institutions	0.0	11/25/2015	B+	BB-	CCC+	8/31/2001
China Fishery Group Ltd.	Missed principal or interest	Hong Kong	Consumer/service	0.0	11/26/2015	B	B+	B+	12/1/2006
Swift Energy Co.	Missed principal or interest	U.S.	Energy and natural resources	1,515.0	12/2/2015	B	B+	B+	11/11/1996
PrivatBank §	Distressed exchange	Ukraine	Financial institutions	0.0	12/4/2015			CC	9/28/2015
Tonon Bioenergia S.A. §	Judicial recovery	Brazil	Consumer/service	0.0	12/10/2015			CCC-	7/17/2015
Getty Images Inc.	Distressed exchange	U.S.	Leisure time/media	2,865.0	12/11/2015	B	B	B+	5/21/1998
Magnum Hunters Resources Corp.	Chapter 11	U.S.	Energy and natural resources	940.0	12/15/2015	B-	B-	B-	5/7/2012
Abengoa S.A.	Missed principal or interest	Spain	Energy and natural resources	2,075.6	12/16/2015	B	B+	B+	10/13/2010

**Table 8**

**2015 Global Publicly Rated Corporate Defaults (cont.)**

Company name	Reason for default	Country	Industry	Debt amount (mil.\$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Empresas ICA S.A.B. de C.V.	Missed principal or interest	Mexico	Aerospace/auto/capital goods/metal	1,550.0	12/18/2015	B+	BB-	BBB	3/4/1994
Foreign Economic Industrial Bank (Vneshprombank)	Regulatory directive	Russian Federation	Financial institutions	267.3	12/21/2015	B+	B	CCC	9/6/2007
Arch Coal Inc.	Missed principal or interest	U.S.	Aerospace/auto/capital goods/metal	6,025.0	12/22/2015	B	B+	BB+	10/13/1998
Heckler & Koch GmbH	Distressed exchange	Germany	Aerospace/auto/capital goods/metal	321.9	12/22/2015	CCC	CCC	B	7/2/2004
Cognor S.A.	Distressed exchange	Poland	Energy and natural resources	0.0	12/30/2015	CCC+		CCC+	2/17/2014
Total*				109,801.3					

\*This total does not match table 1 because it excludes confidentially rated defaults. §Initial ratings for these companies are those immediately following a prior default in 2015. Initial ratings, or those as of Dec. 31, 1980. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

The number of large rating changes (in terms of number of notches) hit seven in 2015--the highest level in the last six years. Considering this, it is not surprising that the annual average number of notches of ratings changes for both upgrades and downgrades expanded as well (see chart 13). At the end of 2015, the average number of notches for upgrades was 1.18 (from 1.16 in 2014), and the average notches for downgrades was 1.47 (from 1.36 in 2014).

Chart 13

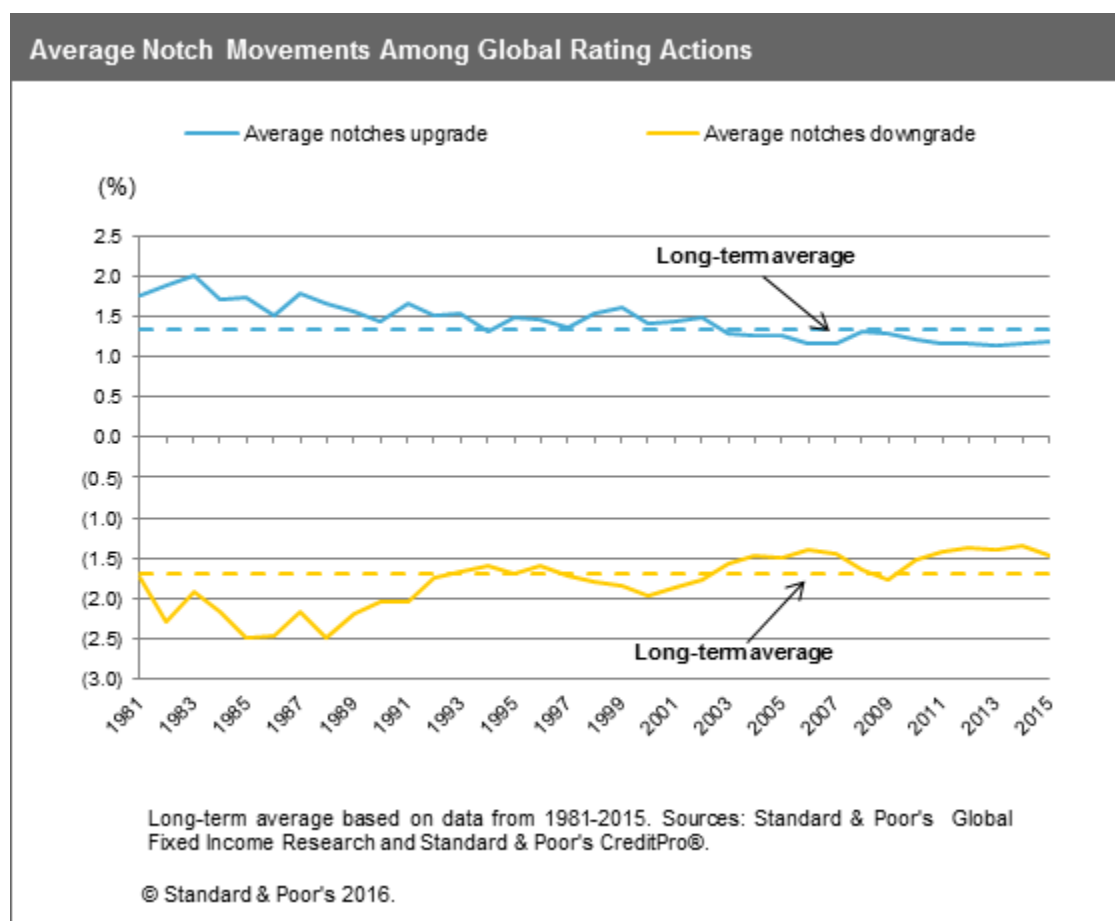


Table 9

One-Year Global Corporate Default Rates By Rating Modifier (%)																	
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/C
1981	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.28	0.00	0.00
1982	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.68	0.00	0.00	2.86	7.04	2.22	2.33	7.41	21.43
1983	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33	2.17	0.00	1.59	1.23	9.80	4.76	6.67
1984	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	0.00	0.00	1.64	1.49	2.15	3.51	7.69	25.00
1985	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	1.49	1.33	2.61	13.11	8.00	15.38
1986	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.00	0.78	0.00	1.82	1.18	1.12	4.68	12.16	16.67	23.08
1987	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	1.31	5.95	6.82	12.28
1988	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.34	1.99	4.50	9.80	20.37
1989	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.90	0.78	0.00	0.00	0.00	2.00	0.43	7.80	4.88	33.33
1990	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.00	1.10	2.78	3.09	4.50	4.89	12.26	22.58	31.25
1991	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.74	0.00	3.70	1.14	1.05	8.72	16.25	32.43	33.87
1992	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	14.93	20.83	30.19
1993	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.94	0.00	1.30	5.88	4.17	13.33
1994	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00	1.84	6.58	3.13	16.67
1995	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00	1.56	1.12	2.77	8.00	7.50	28.00

**Table 9**

One-Year Global Corporate Default Rates By Rating Modifier (%) (cont.)																	
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/C
1996	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.56	2.37	3.74	3.85	8.00
1997	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.35	0.00	0.00	0.00	0.41	0.72	5.30	14.58	12.00
1998	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	1.06	0.67	1.06	0.72	2.60	7.56	9.46	42.86
1999	0.00	0.00	0.00	0.36	0.00	0.24	0.27	0.00	0.28	0.31	0.55	1.34	0.91	4.22	10.45	15.60	33.33
2000	0.00	0.00	0.00	0.00	0.00	0.24	0.57	0.00	0.26	0.89	0.00	0.82	2.06	5.83	10.04	11.61	35.96
2001	0.00	0.00	0.00	0.00	0.58	0.25	0.00	0.24	0.49	0.28	0.52	1.22	5.60	5.84	17.24	22.46	45.45
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.88	1.07	1.58	1.77	4.81	3.27	10.23	19.85	44.44
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.54	0.50	0.97	0.28	1.72	5.34	9.52	32.73
2004	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.67	0.52	0.46	2.35	2.84	16.18
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.37	0.00	0.51	0.79	2.64	2.96	9.09
2006	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.50	0.55	0.82	1.57	13.33
2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.24	0.19	0.00	0.90	15.24
2008	0.00	0.00	0.44	0.41	0.32	0.21	0.60	0.19	0.61	0.73	1.22	0.66	0.68	3.14	3.45	7.59	27.27
2009	0.00	0.00	0.00	0.00	0.30	0.40	0.00	0.42	0.19	1.14	0.00	1.05	0.98	5.96	10.79	17.99	49.46
2010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.36	0.57	0.00	0.74	2.12	22.73
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.42	1.27	4.47	16.42
2012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.60	1.44	3.50	27.33
2013	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.76	0.83	4.65	24.34
2014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.33	2.74	17.03
2015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.22	1.73	2.03	4.26	25.73
Average	0.00	0.00	0.01	0.02	0.05	0.05	0.08	0.14	0.23	0.27	0.54	0.77	1.29	2.24	6.37	9.12	23.71
Median	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.72	1.73	5.34	7.41	23.08
Standard deviation	0.00	0.00	0.07	0.09	0.14	0.11	0.21	0.30	0.35	0.43	0.91	0.83	1.68	2.08	4.88	7.64	11.83
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	0.00	0.00	0.44	0.41	0.58	0.40	0.76	1.10	1.40	1.33	3.70	3.09	7.04	8.72	17.24	32.43	49.46

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

## 2015 Timeline: Global Tremors Push The Default Total Past 100

For the first time since the financial crisis, the global default count reached triple digits, coming in at 113. Roughly 39% of these were from the energy and natural resources sector, which includes many oil and gas companies, as well as many commodity mining companies. The market stressors of overcapacity and lower demand in those sectors that began in the second half of 2014 showed no sign of easing in 2015. Meanwhile, some relief (by historical standards) was seen for typically beleaguered sectors, such as retail and media, which experienced relatively lower incidences of default in 2015.

Within the first week of the year, the price of a barrel of oil dropped below \$50, for the first time in roughly six years. Many felt at the time that falling prices for oil were indicative of slowing economic growth globally, pushing down yields on Treasuries and investment-grade bonds, while spurring sell-offs in most countries' stock markets. In response, many officials across multiple regions began looking at measures to combat a slowdown, prompting the Fed

to endorse many of these measures--something it would not normally do--while sticking to its own plans to eventually raise interest rates in 2015. This, of course, ultimately came much later in the year, but at the time was expected much sooner. This also put the Fed on a completely different track than most other central banks, as the European Central Bank (ECB) began proposing new measures to spur growth after a deflationary reading for consumer prices in December. ECB President Mario Draghi's proposal included spending as much as €1.1 trillion, including monthly asset purchases of €50 billion.

February was the first month of many in the year that had a significant amount of downgrades--in particular, there were eight sovereign downgrades--the highest monthly total for the year--and 110 for corporates. Among sovereigns, Angola, Bahrain, Congo-Brazzaville, Gabon, Greece, Kazakhstan, Oman, and Venezuela were downgraded in February. Greece and Oman experienced further downgrades later in the year. Among corporates, many companies in the oil and gas and commodities mining sectors also experienced downgrades, the result of continued declines in the prices of commodities that began in the second half of 2014. Another corporate segment that had a large number of downgrades in February was Russian financial institutions (including many government-related enterprises, or GREs) as a result of the Jan. 26 downgrade of Russia. Russia's monetary policies and economic prospects were the main drivers behind our downgrade, and many of these corporations and GREs were downgraded as a result of S&P Global Ratings' belief that the government's ability to provide extraordinary support to these firms had eroded. Several other foreign subsidiaries that operate in Russia were also downgraded at the time because of the increasing operating risks. A number of these companies eventually defaulted throughout the year, and outside of the U.S., Russian financial institutions made the largest contribution to the 2015 default count.

Since the onset of the financial crisis in late 2008, lawsuits (and settlements) targeted at the financial industry have become more regular occurrences. However, 2015 generally saw fewer of these, and of those that did occur, most were for smaller amounts than in recent years. Late in March, BNY Mellon agreed to pay \$714 million in a settlement over foreign exchange probes by the SEC, the U.S. Labor Department, and the New York Attorney General. The lawsuits dated back to 2011 and claimed that the bank had defrauded clients for as much as a decade in foreign exchange transactions. As part of the settlement, BNY Mellon also ended the employment of certain executives who were involved.

In April, perhaps the first fissures of uncertainty around China's potential economic slowdown--as well as debt load--appeared. The country's first-quarter 2015 GDP reading came in at 7%. While an enviable level for developed countries, this was the lowest annualized reading since 2009, though it was in line with the government's targets. As doubts over China's future performance crept in, many foreign investors began pulling funds out of the country, at a time when the growing debt load of China was garnering more headlines. In response, rumors began circulating that the central bank would soon begin a series of credit-easing programs aimed at lowering interest rates for local businesses, and to keep lending available. Much of the growing debt has been at the local government level, and the proposal was to allow banks to swap local-government bailout bonds for loans--similar to the long-term refinancing operations in place with the ECB.

By the end of April, the ECB was able to report that through March, euro-area banks' lending to companies and households rose for the first time in three years, after the central bank's recent slew of monetary stimulus, including



buying covered bonds, asset-backed securities, and sovereign debt, as well as extending loans to targeted banks in an effort to boost lending. Finally, at the end of the month, the Fed held off on what some expected to be the first interest rate hike in roughly nine years.

The spring and summer saw a return of one of the financial crisis' regular tales: Greek sovereign woes. In May, the ECB decided against tightening the terms of the Emergency Liquidity Assistance program, starting the latest chapter on positive footing. This helped push the yield on Greece's €2.1 billion, 3.38% bonds due in 2017 down to just under 21%, from as high as 29% in the month prior. While this was relatively good news for Greece, most market participants sensed impending volatility, beginning a decline in the euro relative to the dollar, which experienced a slight correction by June but eventually returned through year-end. Adding to the decline in May, the shared currency fell on the news that the ECB would be accelerating its bond-buying program through increased monthly purchases. Another round of foreign exchange-related lawsuits surfaced in May, as six of the largest banks paid \$5.8 billion in combined charges to the Justice Department, with five of the banks also pleading guilty to charges of conspiring to manipulate pricing of dollars and euros.

As 2015 approached its mid-point, stress began appearing in nearly every corner of the global financial sector. U.S. first-quarter productivity of nonfarm workers came in with a 3.1% seasonally adjusted annual decrease (down from an initial estimate of a 1.9% decline). This was the first time a negative reading was seen in consecutive quarters since 2006, underscoring the sluggish recovery in the U.S. since the financial crisis. In fact, first-quarter GDP in the U.S. also came in showing a contraction, of 0.2% annually. For the most part, government yields in the U.S. and abroad started to rise, speculative-grade corporate bond spreads rose from their lowest points of the year (and never came back down), and equity markets from the developing and developed world began to fall. The VIX (a gauge of near-term stock market volatility) shot up to just under 19 by month-end, from roughly 12 only a few days before. Such dismal performance was accompanied by the International Monetary Fund (IMF) cutting its forecast for U.S. economic growth and an outright plea to the Fed to not raise interest rates until 2016.

The Greek saga provided no shortage of headlines in June. In the middle of the month, talks between Greece and its creditors broke down, with European officials quickly dismissing Greece's proposals at mending its €245 billion bailout. The impasse was great enough for many European officials to offer up an alternative that involved Greece defaulting by month-end, and opening up the possibility of Greece leaving the currency block--popularly termed "Grexit." This led to a rally for U.S. Treasuries as a safe haven and eventually led to Greece shutting down its banking system for six days at the end of the month, to prevent a massive exodus of deposits. The local stock market was also closed during that period.

Only days later, Greece defaulted on its loan from the IMF--the first developed country to do so. The Greek prime minister asked for another bailout program, though creditors' austerity conditions for new aid only resulted in Greek voters overwhelmingly voting "no" on the package. Eventually, toward the middle of the month, Greek lawmakers passed an agreement with the ECB for an €86 billion bailout over three years. Meanwhile, in the Pacific region, Chinese stock markets had been hit particularly hard, losing roughly 40% in less than a month through the first week of July (as measured by the Shenzhen Stock Exchange), or roughly \$2.4 trillion. This quick and deep slide in Chinese markets caused the government there to introduce measures to stop the sell-off, including interest rate cuts, and

organize state-backed companies to buy securities. Fears at the time included spillover effects beyond regional markets and an increased lack of confidence in the government's ability to manage the economy.

With these stressors still in place, August proved to be one of the worst months for equities in recent years. The S&P 500 stock index lost about 6.25% during the month, and the VIX spiked to nearly 41 on Aug. 24, from roughly 12 only days before. At the time, it was believed that this was again in reaction to fears out of China, as major indices across the globe saw declines. Chinese shares finished the day down 8.5%, posting a loss for the year, and the currency lost roughly 4.5% during this time as well, with more declines in the near future. Meanwhile, Greece and its creditors finally agreed to a bailout package, and calm seemed to be restored as the ECB provided the maximum level of emergency aid available to the country's banks.

Amid all of the financial fallout in the prior months, the Republic of Iraq was assigned an initial rating on Sept. 3, making it the 130th sovereign S&P Global Ratings rates. It was assigned a long-term foreign currency rating of 'B-', with a stable outlook. The relatively low rating stems largely from the country's very high security and institutional risks, including its ongoing war with ISIS, and the fiscal pressures arising from the continued drop in the price of oil—one of the country's main exports and tax revenue sources. And as Iraq joined the ranks of rated sovereigns in September, Brazil lost its investment-grade rating shortly thereafter. On Sept. 9, S&P Global Ratings lowered its long-term foreign-currency rating on Brazil to 'BB+' from 'BBB-', largely because of the deteriorating fiscal conditions in Brazil related to investigations of corruption at state-owned energy company Petrobras. These investigations have focused on very high-level individuals in both the government and in the private sector, making the near-term political landscape very uncertain. In more sovereign news, Japan was also downgraded, and only days after its equity market posted its largest one-day gain since the global financial crisis in 2008. On Sept. 16, S&P Global Ratings lowered its long-term local and foreign-currency ratings on Japan to 'A+' from 'AA-', after the increased stimulus measures in recent years were found to have fallen flat. These sovereign downgrades then led to many downgrades in their respective corporate and banking sectors shortly thereafter. Finally, the Fed ended up holding off on an anticipated interest rate hike at its September meeting, drawing speculation that one would occur in December.

Sovereign downgrades may have had spillover effects in September, but October started off with an upgrade of Spain (to 'BBB+' from 'BBB'). The country's labor market reforms in recent years, along with easier financial conditions, have helped its economic performance in the last few years and led S&P Global Ratings to increase its GDP growth estimates to about 4% for the next few. These factors drove the upgrade. In what would become a more familiar theme globally of low, or even negative interest rates, the yield on the three-month Treasury at auction reached zero for the first time. Meanwhile, the Bank of England kept its main interest rate unchanged, at 0.5% only days later, on fears of headwinds to domestic and global growth. Within Asia, the People's Bank of China took another step to boost lending in its economy by letting more commercial lenders use loans as collateral when seeking funding from the central bank. These funds are then intended to reach areas of the economy targeted as important to growth for China, such as small businesses. Finally, toward the end of the month, the Fed communicated some of its most direct language on future rate hikes in the last 10 years by making an explicit case for increasing interest rates at its meeting in December.

At the end of November, the IMF announced that beginning in October 2016, the Chinese yuan would be the fifth currency to be part of the basket of currencies that make up the Special Drawing Right. While a symbolic boost to

China, the move also brings with it increased responsibility on the government in terms of communications with the investor community to build confidence abroad in its management of the currency. Within the U.S., the jobs readings came in showing that nonfarm jobs rose to a seasonally adjusted level of 271,000 in October, according to the Labor Department, and this was the highest total for the year. August and September estimates were revised upwards as well, the unemployment rate rose to 5%, and average hourly earnings for private-sector workers rose to its highest year-over-year pace since July 2009 (to 2.5%). With such a strong showing in the labor market, this made a December interest rate hike almost a near certainty.

And it ultimately was. Despite increasing uncertainty and volatility in global financial markets, the Fed felt confident in the course of the U.S. economy and labor markets. The vote to raise the rate by 25 bps was unanimous, and the goal was to continue to raise rates progressively over the next three years. Most markets reacted positively, taking the increase as a sure sign of future U.S. economic growth. However, while the Fed may have had confidence at the time, the Third Avenue Focused Credit Fund halted its investors' withdrawals after sustaining continued losses in the corporate bond market. This was a reminder to many of the worries expressed over the changing nature of bond buyers in recent years, as well as a reflection of the broader decline in corporate bonds in the second half of the year (largely on the difficulties seen in the oil, gas, and other commodities sectors).

By the end of the year, many financial markets fell across the globe--though with some sporadic gains seen as well--and the S&P 500 finished essentially flat. Corporate bond issuance declined in the second half of the year, with the speculative-grade segment being particularly hard hit, while speculative-grade bonds in the secondary markets in the U.S. experienced losses for the year for the first time since 2008. Defaults hit a total of 113, driven largely by stress in the commodities sectors. And while the Fed raised rates as a nod to the economy's perceived strength, these global headwinds persisted into the new year as well.

## Quarterly Trends

On a year-over-year basis, the number of rated defaults doubled in every quarter of 2015 compared with the same quarter in 2014, except for the third (see chart 14). In every quarter, the energy and natural resources sector led the way, ultimately accounting for 39% of the 2015 total. In terms of the amount of affected debt, 2015 generally saw smaller defaulters, with no one quarter standing out as having an exceptional amount of affected debt (see chart 15). In many cases, a particular year will be punctuated by one or two large defaulters (see table 5), but in 2015 the main driver of quarterly debt amounts affected was simply the total number of defaults. For example, at the low end, the first quarter had an average amount of affected debt across all defaulters of about \$810 million. At the high end, the second quarter's average was \$1.05 billion.

Chart 14

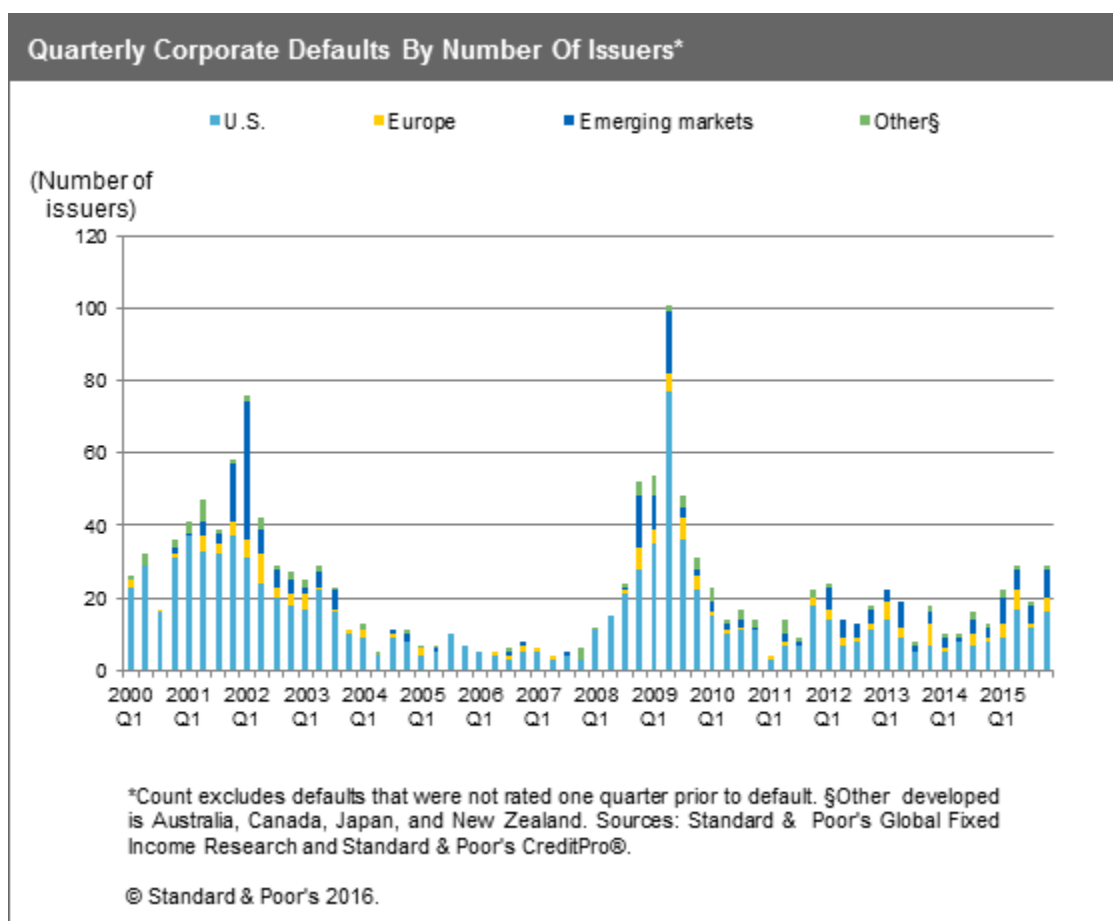
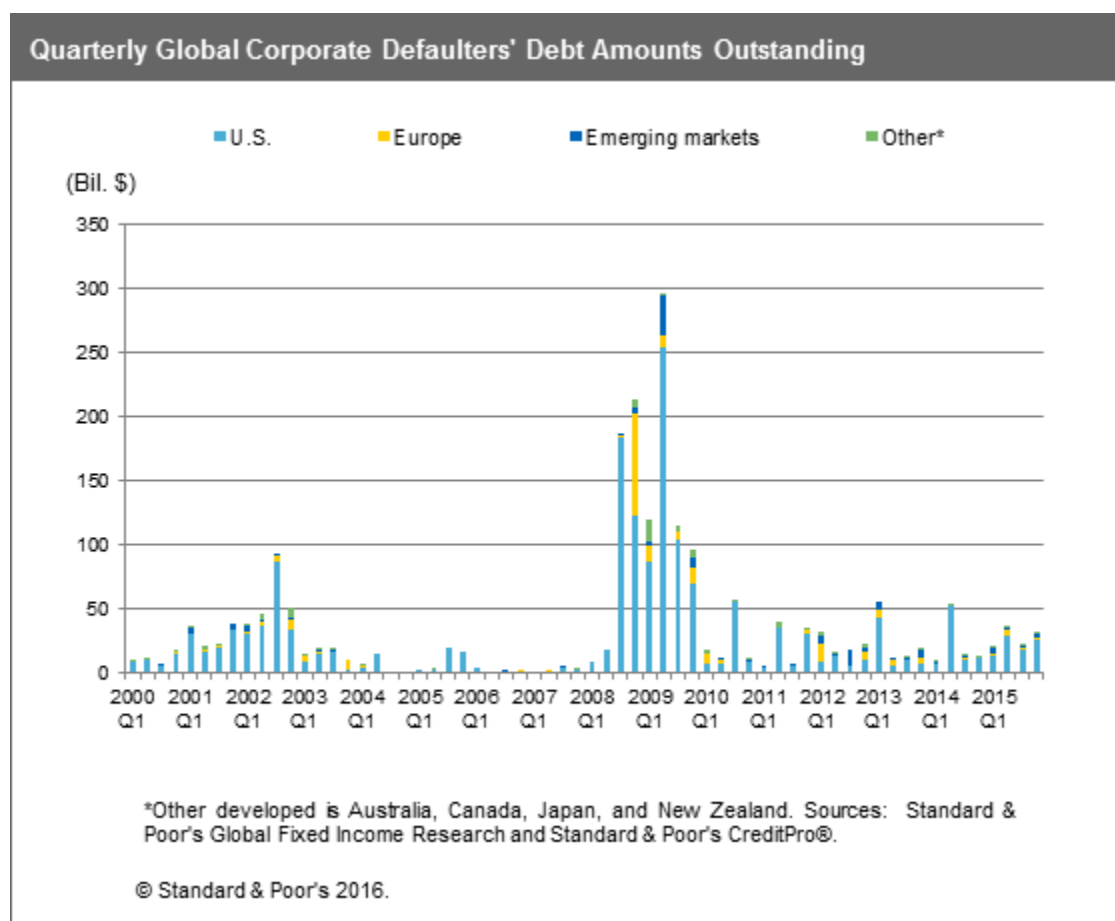
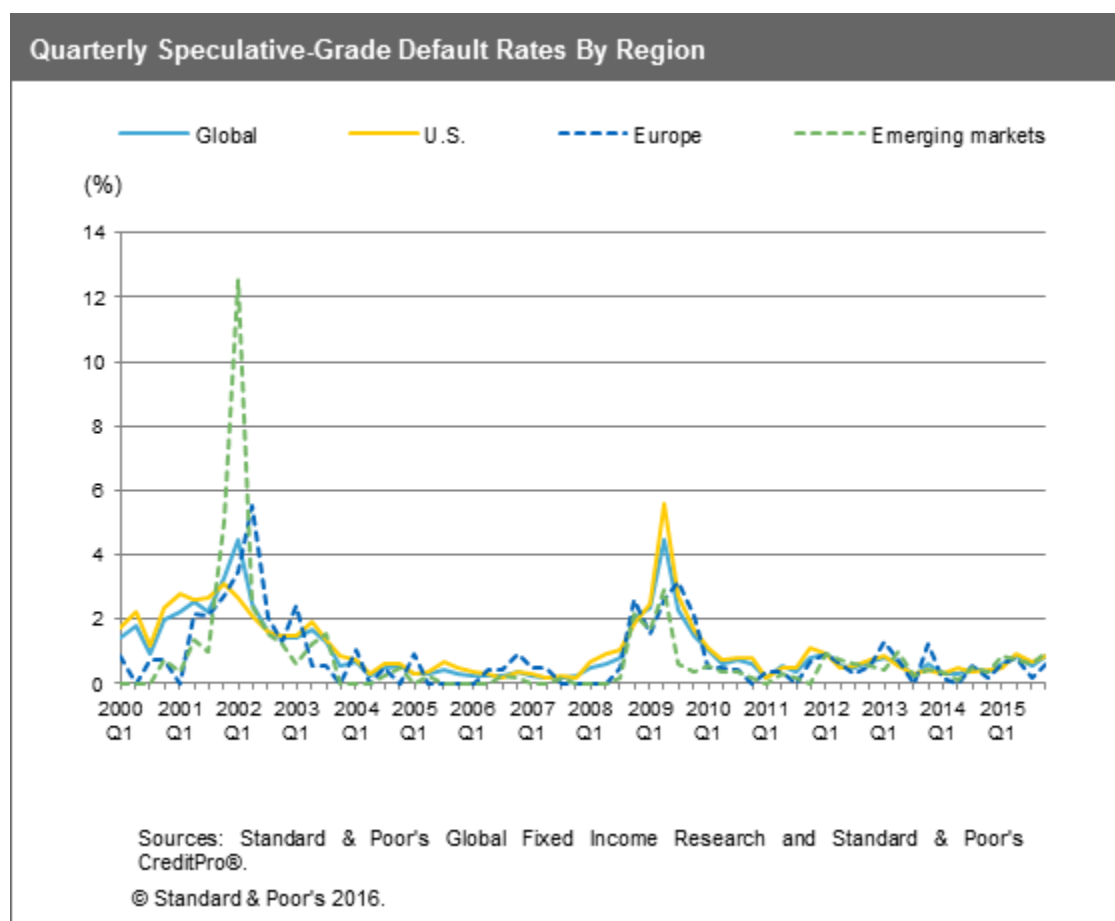


Chart 15



The 12-month-trailing and annual default rates have become industry standards, but default rates measured over shorter time frames give a more immediate picture of credit market conditions. Based on quarterly intervals of measurement (nonannualized), default activity in 2015 was higher across the major regions in every quarter relative to the end of 2014 (see chart 16). The only exception to this was the third-quarter default rate in Europe. Additionally (and again with the exception of Europe), quarterly default rates rose over the course of the year. If these levels of actual default events continue, they will likely lead to even higher default rates in the early part of 2016. By the end of the year, the quarterly default rates among the four major regions finished at 0.84%, 0.88%, 0.64%, and 0.98% for the global, U.S., European, and emerging markets regions, respectively.

Chart 16



## Lower Ratings Are Consistent With Higher Default Vulnerability

On average, there is a negative correlation between the initial rating on a firm and its time to default, if that occurs. For example, for the entire pool of defaulters (1981-2015), the average times to default for issuers that were originally rated in the 'A' and 'B' categories were 12.9 years and 4.7 years, respectively, from initial rating (or from Dec. 31, 1980, the start date of the study), whereas issuers in the 'CCC' rating category or lower had an average time to default of only 2.3 years. In cases where an issuer emerges from a prior default (including distressed exchanges), we consider it a separate entity, and the original rating is the first after the default event. Table 10 displays the median, average, and standard deviations for the time to default from the original rating. The differences between each rating category's minimum and maximum times to default are in the last column under "range." Table 11 presents the average and median times to default from each rating category for all subsequent ratings received. In both cases, the standard deviation of the times to default generally shrink progressively as the rating gets lower. Generally speaking, the average time to default for each rating category is longer when based on the initial rating on an issuer than it is based on ratings reached later in the issuer's history, particularly for speculative-grade ratings.

**Table 10**

Time To Default From Original Rating For Global Corporate Defaulters (1981-2015)					
Original rating	Defaults	Average years from original rating*	Median years from original rating	Standard deviation of years from original rating	Range
AAA	8	18.0	18.5	11.4	23.0
AA	30	14.9	12.8	8.5	27.3
A	93	12.9	10.8	7.9	32.6
BBB	197	8.5	7.0	5.9	30.7
BB	568	6.5	5.0	5.1	33.9
B	1,314	4.7	3.5	4.0	30.5
CCC/C	204	2.3	1.3	2.8	17.4
Total	2,414	5.7	4.0	5.3	34.2

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

**Table 11**

Time To Default From Post-Original Ratings For Global Corporate Defaulters (1981-2015)			
Rating	Average years from rating category	Median years from rating category	Standard deviation of years from rating category
AAA	23.7	23.3	8.2
AA	13.5	15.2	8.3
A	10.5	9.0	7.5
BBB	7.6	6.0	6.4
BB	5.3	3.7	5.1
B	2.8	1.6	3.4
CCC/C	0.8	0.3	1.5
NR	4.6	2.7	4.9
Total	3.1	1.2	4.5

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

Table 12 shows the cumulative distribution of defaulters by timeline of default count based on the original rating. The first row is the rating distribution of defaults occurring within 12 months of the original rating. The second row is the distribution of the cumulative count of defaults occurring within three years of the original rating. In line with expectations, the majority (90.6%) of companies that defaulted within one year of the original rating are from the lowest speculative-grade rating categories (see table 12). For example, of the 170 companies that defaulted within 12 months of having been rated, 154 were originally in the 'B' category ('B+', 'B', and 'B-') or lower. Only when looking at longer time frames do companies with higher original ratings surface among the defaulters. For example, of all the companies that defaulted during 1981-2015, only two entities rated 'AAA' at inception defaulted within seven years. Throughout the 35-year span, only eight companies initially rated 'AAA' have ever defaulted. These were Macy's Inc., Ally Financial Inc., Ambac Assurance Corp., Mutual Benefit Life Insurance Co., Executive Life Insurance Co. CA, Confederation Life Insurance Co., Motors Liquidation Co. (formerly known as General Motors Corp.), and Eastman Kodak Co.

**Table 12**

Cumulative Defaulters By Time Horizon Among Global Corporates, From Original Rating (1981-2015)								
Number of issuers	AAA	AA	A	BBB	BB	B	CCC/C	Total
<b>Defaulting within:</b>								
One year				3	13	73	81	170
Three years		1	6	28	136	535	155	861
Five years		4	13	68	281	885	183	1,434
Seven years	2	7	27	99	373	1,069	192	1,769
Total	8	30	93	197	568	1,314	204	2,414
<b>Percent of total defaults per time frame</b>								
One year	0.0	0.0	0.0	1.8	7.6	42.9	47.6	
Three years	0.0	0.1	0.7	3.3	15.8	62.1	18.0	
Five years	0.0	0.3	0.9	4.7	19.6	61.7	12.8	
Seven years	0.1	0.4	1.5	5.6	21.1	60.4	10.9	
Total	0.3	1.2	3.9	8.2	23.5	54.4	8.5	

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

Table 13 shows the cumulative defaults over various time horizons from all ratings received subsequent to initial ratings. Each issuer is likely to be captured multiple times, in line with its migration from one rating to another, so the total count in table 13 is different from that in table 12. Ten companies rated 'A' at any point in their lifetimes defaulted within one year of receiving this rating. In table 13, the times to default are from the date that each entity received each unique rating in its path to default. In contrast, table 21 reports transition to default rates using the static-pool methodology, which calculates movements to default from the beginning of each static-pool year. This usually leads to shorter time frames from which to calculate default statistics. Data provided in table 13 also differ from default rates in table 24 owing to the use of the static-pool methodology. For more information on methodologies and definitions, please see Appendix I.

**Table 13**

Cumulative Defaulters By Time Horizon Among Global Corporates, From Post-Original Ratings (1981-2015)									
Number of issuers	AAA	AA	A	BBB	BB	B	CCC/C	NR	Total
<b>Defaulting within:</b>									
One year			10	64	168	939	2,056	128	3,365
Three years		7	40	138	408	1,766	2,472	298	5,129
Five years		9	61	191	564	2,132	2,567	384	5,908
Seven years		14	74	249	686	2,311	2,601	443	6,378
Total	3	45	199	446	948	2,541	2,634	566	7,382
<b>Percent of total defaults per time frame</b>									
One year	0.0	0.0	0.3	1.9	5.0	27.9	61.1	3.8	
Three years	0.0	0.1	0.8	2.7	8.0	34.4	48.2	5.8	
Five years	0.0	0.2	1.0	3.2	9.5	36.1	43.4	6.5	
Seven years	0.0	0.2	1.2	3.9	10.8	36.2	40.8	6.9	



**Table 13**

**Cumulative Defaulters By Time Horizon Among Global Corporates, From Post-Original Ratings (1981-2015) (cont.)**

Number of issuers	AAA	AA	A	BBB	BB	B	CCC/C	NR	Total
Total	0.0	0.6	2.7	6.0	12.8	34.4	35.7	7.7	

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

Defaults are disproportionately from low rating categories, even during times of heightened stress (see table 14). Over longer time horizons, the same is true. For example, 219 defaults were recorded in the five-year pool that began in January 2011, of which 216 were rated speculative grade on Jan. 1, 2011. (See table 15 for the three publicly rated investment-grade defaults during this time period.) Among nonfinancial entities, the lower the rating, the higher the number of defaults and the lower the survival rates. Among financials, ratings are concentrated in investment grade, and the speculative-grade category accounts for no more than 24.7% of all ratings in any of these three pools. Despite this, 12 defaults have come from the 2015 pool thus far, though those were from the lowest rating categories (see table 14).

**Table 14**

**Defaults And Survivor Rates In Latest One-Year, Three-Year, And Five-Year Pools**

Rating	--Latest one-year--			--Latest three-year--			--Latest five-year--		
	Number of ratings as of 1/1/2015	Number of defaults through December 2015	Non-default rate (%)	Number of ratings as of 1/1/2013	Number of defaults through December 2015	Non-default rate (%)	Number of ratings as of 1/1/2011	Number of defaults through December 2015	Non-default rate (%)
<b>Global</b>									
AAA	15	0	100.0	21	0	100.0	52	0	100.0
AA	341	0	100.0	312	0	100.0	353	0	100.0
A	1,333	0	100.0	1,265	0	100.0	1,352	1	99.9
BBB	1,796	0	100.0	1,647	0	100.0	1,469	2	99.9
BB	1,238	2	99.8	1,050	9	99.1	946	30	96.8
B	2,012	48	97.6	1,594	100	93.7	1,323	135	89.8
CCC/C	171	44	74.3	152	62	59.2	134	51	61.9
<b>Nonfinancials</b>									
AAA	11	0	100.0	13	0	100.0	14	0	100.0
AA	95	0	100.0	82	0	100.0	90	0	100.0
A	547	0	100.0	520	0	100.0	547	1	99.8
BBB	1,247	0	100.0	1,108	0	100.0	1,005	0	100.0
BB	982	2	99.8	813	7	99.1	752	22	97.1
B	1,774	42	97.6	1,408	93	93.4	1,170	122	89.6
CCC/C	145	38	73.8	133	56	57.9	117	47	59.8
<b>Financials</b>									
AAA	4	0	100.0	8	0	100.0	38	0	100.0
AA	246	0	100.0	230	0	100.0	263	0	100.0
A	786	0	100.0	745	0	100.0	805	0	100.0

**Table 14**

Defaults And Survivor Rates In Latest One-Year, Three-Year, And Five-Year Pools (cont.)									
Rating	--Latest one-year--			--Latest three-year--			--Latest five-year--		
	Number of ratings as of 1/1/2015	Number of defaults through December 2015	Non-default rate (%)	Number of ratings as of 1/1/2013	Number of defaults through December 2015	Non-default rate (%)	Number of ratings as of 1/1/2011	Number of defaults through December 2015	Non-default rate (%)
BBB	549	0	100.0	539	0	100.0	464	2	99.6
BB	256	0	100.0	237	2	99.2	194	8	95.9
B	238	6	97.5	186	7	96.2	153	13	91.5
CCC/C	26	6	76.9	19	6	68.4	17	4	76.5

Note: The totals included may differ from the counts in table 1 because defaults that are not rated at the beginning of the pool year are excluded. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

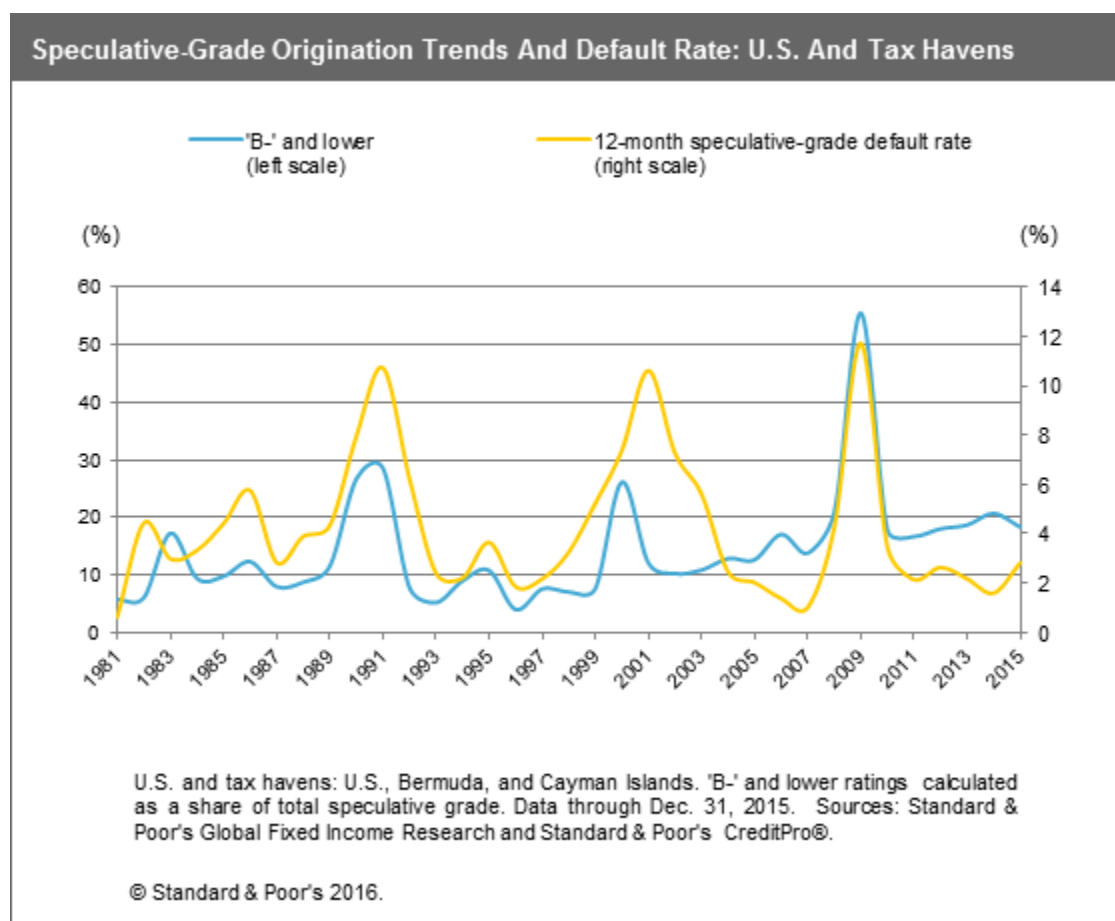
**Table 15**

Investment-Grade Defaults In The Five-Year 2011 Static Pool									
Company name	Country	Industry	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating	Year of default	
MF Global Holdings Ltd.	U.S.	Financial institutions	10/31/2011	BBB-	11/24/2010	BBB+	5/31/2007	2011	
Republic Mortgage Insurance Co.	U.S.	Insurance	1/26/2012	CC	10/28/2011	AA	3/28/1983	2012	
Sharp Corp.	Japan	High tech/computers/office equipment	6/30/2015	CCC-	5/15/2015	A	11/20/2002	2015	

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

Since 1981, the 'B' rating category ('B+', 'B', and 'B-') has accounted for 1,314 defaulters (54.4% of the total, from initial rating), more than double the number of entities in the 'BB' category (see tables 10 and 12). Given the historical track record, monitoring the trends in new ratings assigned could prove useful in anticipating future default activity based on the notion that years characterized by high numbers of new ratings of 'B-' or lower will likely be followed by increased default risk (within this report, issuers that reemerge from default and receive a subsequent rating are treated as new issuers). Chart 17 plots the proportion of all new speculative-grade ratings 'B-' or lower in the U.S. against the year-end U.S. speculative-grade default rate. As coincident indicators, broad movements in the two series generally mirror each other throughout most of their shared history--uncannily so in the 2009 spike in the default rate. However, in the relatively benign period since then, the two series have diverged somewhat, similar to the period from 2004-2007.

Chart 17



## Industry Variations

For the most part, default rates across both nonfinancial and financial companies increased in 2015 relative to the prior year, and they are nearing their long-term averages (see table 16). Across various time frames, default rates are, on average, always higher for nonfinancial companies than they are for financial companies. In 2015, financial companies accounted for 13.3% of total defaults globally. This is a higher proportion of the annual total than is typical. It is higher than both the 35-year total (10.9%) and that seen in 2014 (10%). Default rates across various time horizons are also lower in the past two years relative to long-term averages. This is the case even at the 10-year horizon, reflecting extended periods of lower-than-average default rates across these broad industrial classifications.

Table 16

Cumulative Global Corporate Default Rates By Sector (%)							
Sector	2015	2014	Average (1981-2015)	Median	Standard deviation	Minimum	Maximum
<b>Financial institutions</b>							
One-year	0.86	0.24	0.66	0.30	0.75	0.00	2.80
Three-year	1.21	0.79	1.92	1.25	1.69	0.00	6.52

**Table 16**

Cumulative Global Corporate Default Rates By Sector (%) (cont.)							
Sector	2015	2014	Average (1981-2015)	Median	Standard deviation	Minimum	Maximum
10-year	3.63	2.71	4.81	4.15	2.67	1.66	10.12
<b>Insurance</b>							
One-year	0.12	0.00	0.54	0.27	0.93	0.00	4.65
Three-year	0.12	0.13	1.66	1.09	1.65	0.12	6.98
10-year	2.15	2.18	5.29	4.56	2.99	2.15	14.29
<b>All financials</b>							
One-year	0.57	0.15	0.59	0.43	0.56	0.00	2.07
Three-year	0.76	0.52	1.78	1.86	1.23	0.18	4.97
10-year	3.03	2.50	4.98	4.35	2.35	2.40	8.87
<b>All nonfinancials</b>							
One-year	1.71	0.94	1.80	1.43	1.35	0.16	5.72
Three-year	3.83	3.59	5.11	3.93	2.99	1.88	12.46
10-year	9.50	8.18	11.38	10.32	3.35	6.98	19.37

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

Over the long term, cyclicity has been more pronounced in nonfinancial sectors than in financial sectors, which is as we would expect considering the differences in their rating profiles (see chart 18). Financial companies were more likely to possess an initial rating in the investment-grade category, while nonfinancials companies were more likely to initially have speculative-grade ratings. Over the 35 years this study covers, 72.6% of financial entities had initial investment-grade ratings, while only 32.7% of nonfinancials did. This helps to explain the resemblance between the annual default rates of nonfinancial entities and those of the speculative-grade universe as a whole. This certainly contributes to the vast differences between cumulative default rates across financial and nonfinancial sectors (see table 16). For example, at the end of 2015, the one-year default rate among all financial entities was 0.57%, compared with 1.71% for all nonfinancials. The gap is even wider over longer time horizons, such as three years and 10 years (see chart 19).

Chart 18

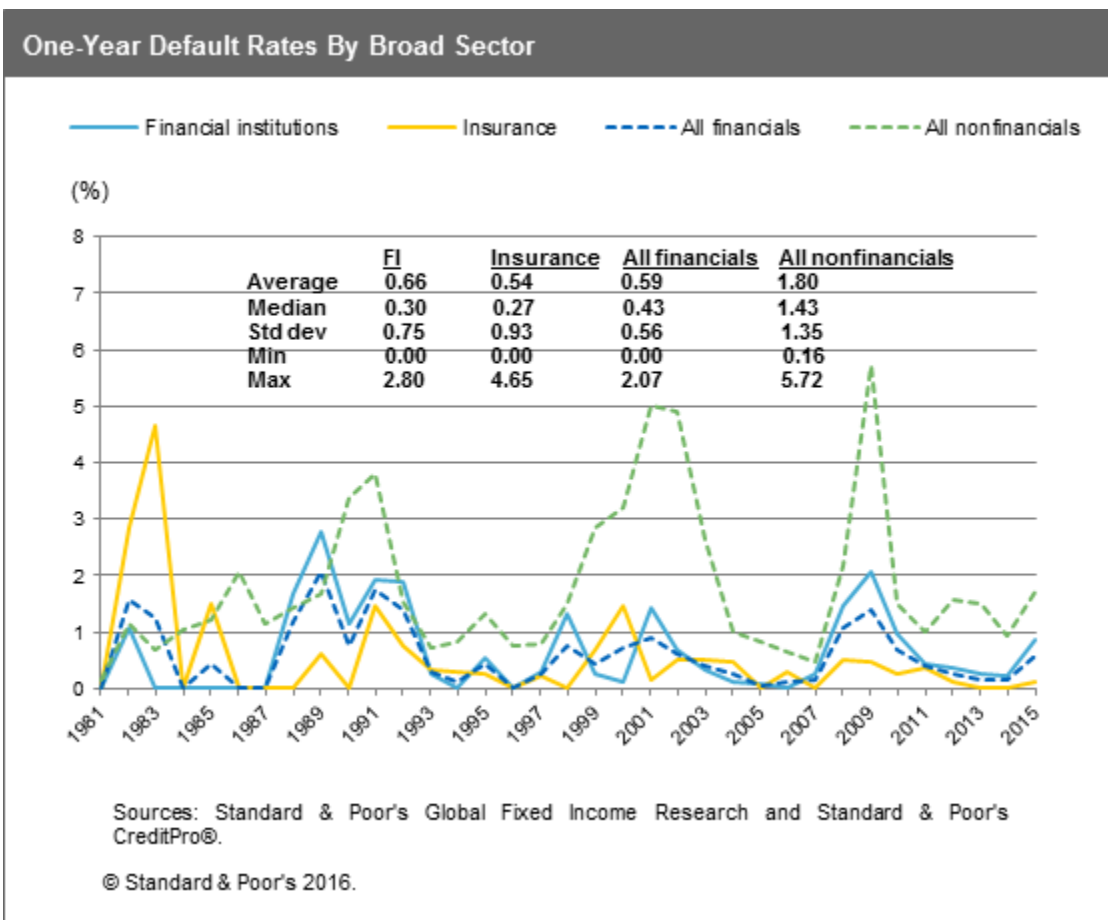
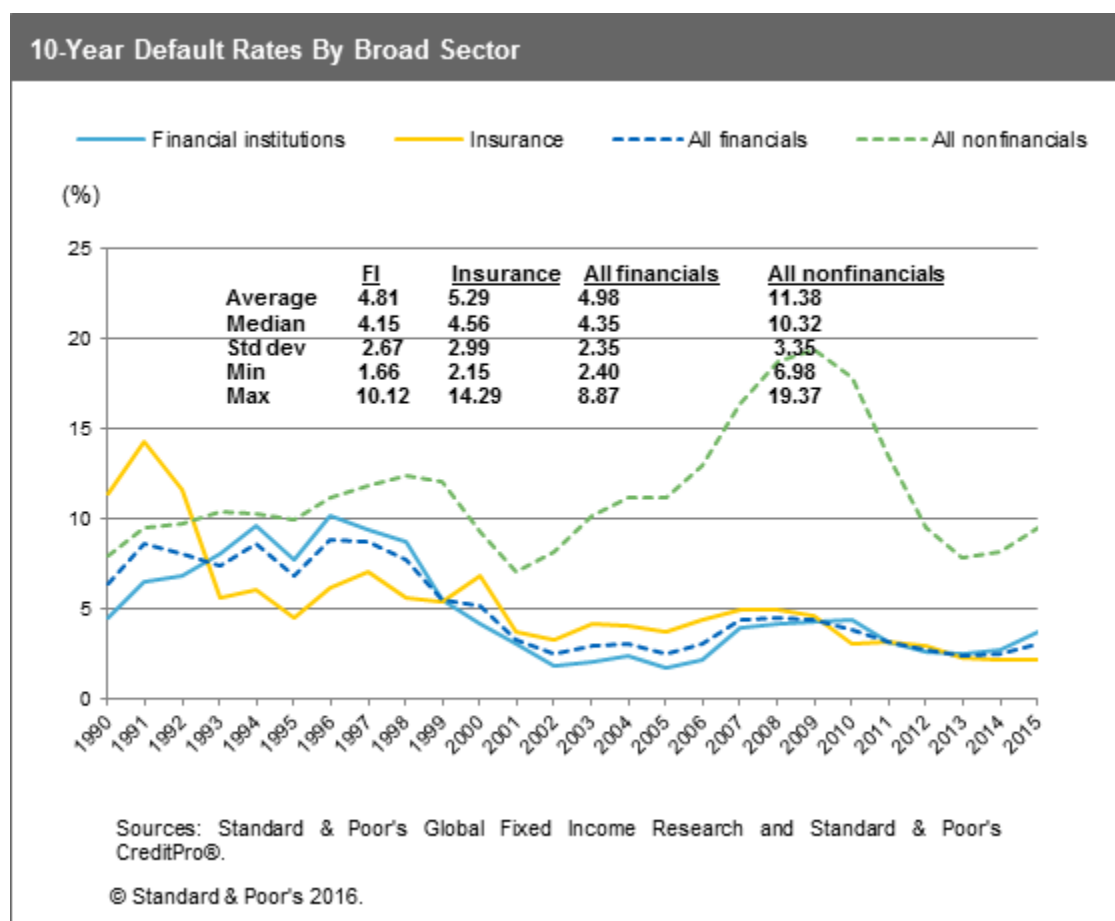


Chart 19



Of the 2,414 defaults recorded globally over the long term, six sectors displayed an average time to default that is lower than the overall average of 5.7 years. These sectors are energy and natural resources, financial institutions, high technology/computers/office equipment, leisure time/media, real estate, and telecommunications (see table 17). Using the median rather than the mean adds the transportation sector to the list.

Table 17

Time To Default From Original Rating* Grouped By Industry (%)							
	Median original rating (defaulters)	Median original rating (industry)	Defaults	Average years from original rating*	Median years from original rating	Standard deviation of years from original rating	Range (years)
Aerospace/automotive/capital goods/metal	B+	BB-	353	6.4	4.5	5.6	28.4
Consumer/service sector	B+	B+	448	6.3	4.6	5.4	34.1
Energy and natural resources	B	BB-	203	4.1	2.9	3.8	23.0
Financial Institutions	BB-	BBB	191	5.5	3.7	5.8	28.6
Forest and building products/homebuilders	B+	BB-	153	6.4	4.7	5.2	27.9
Health care/chemicals	B+	B+	142	5.8	4.1	5.1	28.3

**Table 17**

Time To Default From Original Rating* Grouped By Industry (%) (cont.)							
	Median original rating (defaulters)	Median original rating (industry)	Defaults	Average years from original rating*	Median years from original rating	Standard deviation of years from original rating	Range (years)
High technology/computers/office equipment	B+	B+	81	5.3	3.8	4.7	28.6
Insurance	A	A	72	8.0	6.6	6.4	28.9
Leisure time/media	B+	B+	348	5.6	4.0	5.1	34.2
Real estate	BB-	BBB-	43	3.7	2.8	2.8	10.9
Telecommunications	B	B+	167	3.9	3.1	3.0	21.5
Transportation	B+	BB+	137	6.1	3.8	6.1	30.9
Utility	BB+	BBB+	76	6.3	4.1	6.5	30.6
Total	B+	BB	2,414	5.7	4.0	5.3	34.2

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

**Table 18**

Time To Default From Post-Original Ratings, Grouped By Industry (%)			
	Average years to default	Median years to default	Standard deviation of years to default
Aerospace/automotive/capital goods/metal	3.7	1.5	5.0
Consumer/service sector	3.4	1.6	4.5
Energy and natural resources	2.2	1.0	3.4
Financial Institutions	3.0	1.0	4.7
Forest and building products/homebuilders	2.9	1.4	3.9
Health care/chemicals	2.9	1.3	4.1
High technology/computers/office equipment	3.9	2.0	5.2
Insurance	3.1	1.8	3.8
Leisure time/media	3.0	1.2	4.4
Real estate	1.4	0.8	1.7
Telecommunications	1.6	0.6	2.7
Transportation	4.4	1.7	6.0
Utility	3.1	0.7	5.3
Total	3.1	1.2	4.5

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

Eight industries had default rates in 2015 that were higher than their comparable 2014 rates, with an average increase of 1.33% (see table 19). Meanwhile, five other sectors had lower default rates in 2015 relative to 2014, with a more modest average decrease of 0.5%. Not surprisingly, the largest increase was in the energy/natural resources sector, with a default rate of 6.5% in 2015, from 2.24 in 2014. Excluding this sector, the average increase among industries with higher default rates in 2015 was 0.9%. While the overall default rate increased in 2015, the energy and natural resources sector – particularly the oil and gas-related industry – has been the main driver of this increase. Also, most sectors' default rates are still below their long-term averages (only four are above their long-term averages). Among those four, the energy and natural resources sector had a default rate in 2015 that was 4.3% higher than the average.

Following this is financial institutions, which had a 2015 default rate only two-tenths of a percentage point higher.

**Table 19**

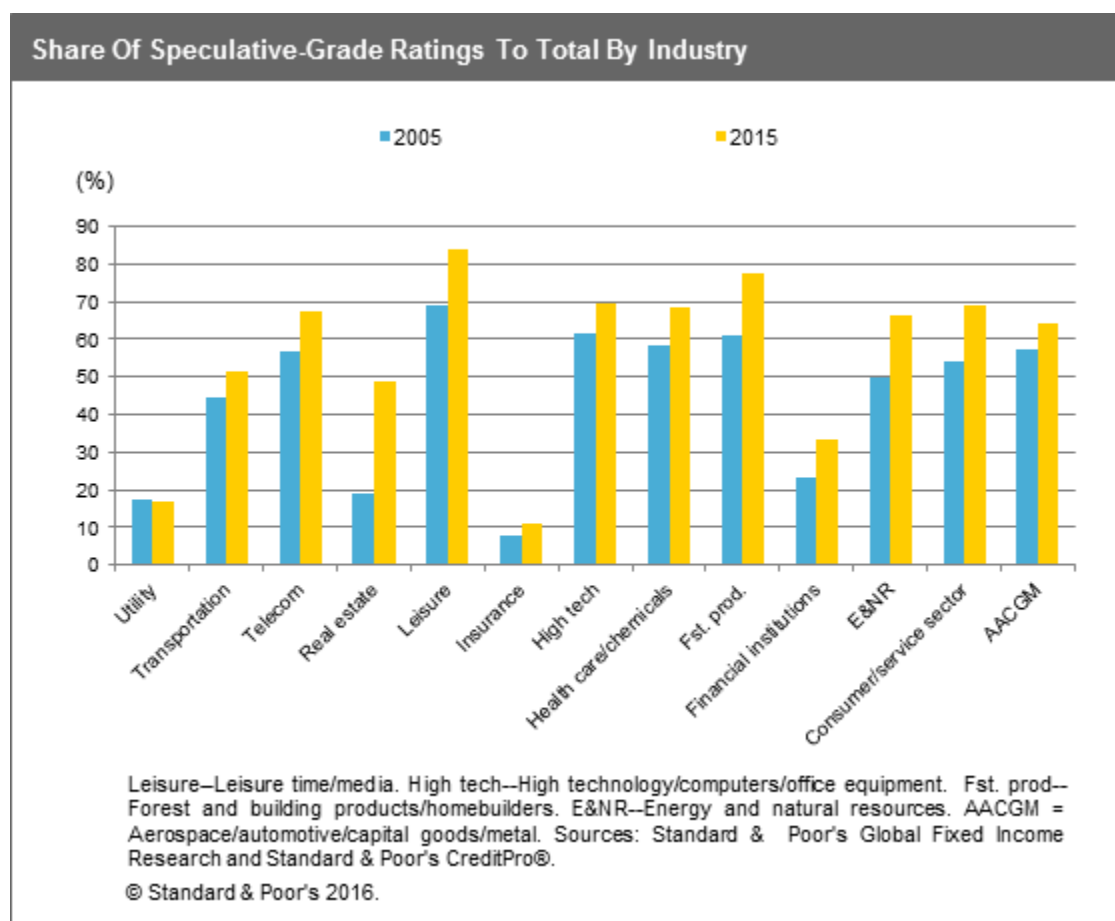
<b>Global Corporate Default Rates By Industry (%)</b>							
	<b>2015</b>	<b>2014</b>	<b>Weighted average (1981-2015)</b>	<b>Median</b>	<b>Standard deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Aerospace/automotive/capital goods/metal	1.00	0.36	2.19	1.31	2.08	0.00	9.39
Consumer/service sector	2.11	1.03	2.28	1.63	1.62	0.00	6.27
Energy and natural resources	6.53	2.24	2.19	1.44	2.21	0.00	10.00
Financial Institutions	0.86	0.24	0.66	0.30	0.75	0.00	2.80
Forest and building products/homebuilders	2.73	0.00	2.67	1.49	2.96	0.00	14.43
Health care/chemicals	0.42	0.69	1.44	0.84	1.34	0.00	4.86
High technology/computers/office equipment	0.66	1.45	1.16	0.92	1.48	0.00	4.82
Insurance	0.12	0.00	0.34	0.27	0.93	0.00	4.65
Leisure time/media	1.66	2.33	3.54	2.14	3.36	0.00	16.87
Real estate	0.81	0.00	0.80	0.00	2.82	0.00	12.00
Telecommunications	0.00	0.45	2.65	0.52	3.96	0.00	18.43
Transportation	1.15	0.83	2.10	1.86	1.66	0.00	6.00
Utility	0.00	0.33	0.45	0.17	0.78	0.00	4.26

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

When comparing default rates across sectors, we note some key differences between the various industries. Some of the variation in default rates between sectors stems from overall sample size differences as well as differentiation in the rating mix across industries. For example, the leisure/media sector has a much higher representation of speculative-grade ratings than the financial institutions or insurance sectors (see chart 20). What is most compelling is that besides utilities, all other sectors now have a higher portion of speculative-grade ratings than they did 10 years ago, and speculative-grade-rated issuers account for more than 50% of total issuers in nine of the 13 industries, with the majority of these industries' proportions exceeding 60%.



Chart 20



## Speculative-Grade Ratings Now Dominate

History suggests that growth in speculative-grade ratings is usually a precursor to a period of increased defaults. The surge in speculative-grade originations beginning in 2002 in the U.S.—when the high-yield market had the most depth—supports this notion (see chart 23). By contrast, speculative-grade rating originations in Europe have been more subdued, which is attributable to much of the leveraged activity having migrated to the private credit estimate market, which is not included in this study or the CreditPro® database (see chart 24). However, the growth of speculative-grade ratings in Europe has picked up substantially since 2009 as a result of a slight increase in the rate of downgrades and a marked increase in the number of initial speculative-grade ratings for new issuers. The number of new issuers assigned speculative-grade ratings in Europe in 2015 was 124, which is less than the 168 in 2014 and 175 in 2013. However, the overall level of new speculative-grade issuer ratings also fell in 2015 by about 33% from 2014. In the U.S., S&P Global Ratings rated 54.9% of issuers speculative grade as of Dec. 31, 2015 (while in Europe, the comparable amount is just under 41.6%).

On a trailing 12-month basis, the global speculative-grade default rate hit a recent peak of 10.4% in November 2009 (see chart 21). Risk tolerance among lenders has increased since the global economic and financial downturn, as

demonstrated by an increase in the share of new issuers rated speculative grade over the past six years, hitting a high of 80% in 2013. This reversed somewhat in 2015, to 69%. The more difficult lending environment in 2015--particularly in the second half of the year--contributed to a reduction in the total amount of initial speculative-grade issuer ratings to 455 from 682 in 2014. Meanwhile, there was also somewhat of a decline in the amount of initial investment-grade issuer ratings, to 203 in 2015 from 231 in 2014.

**Chart 21**

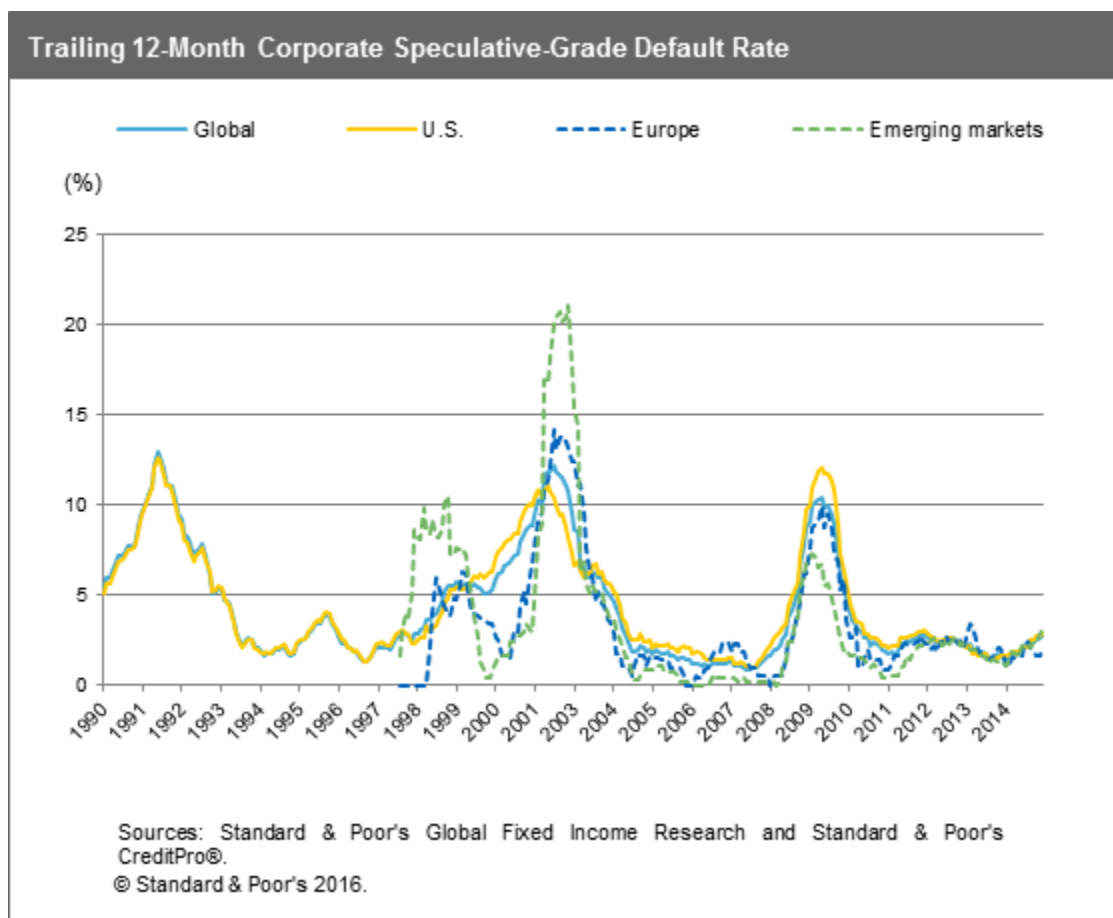


Chart 22

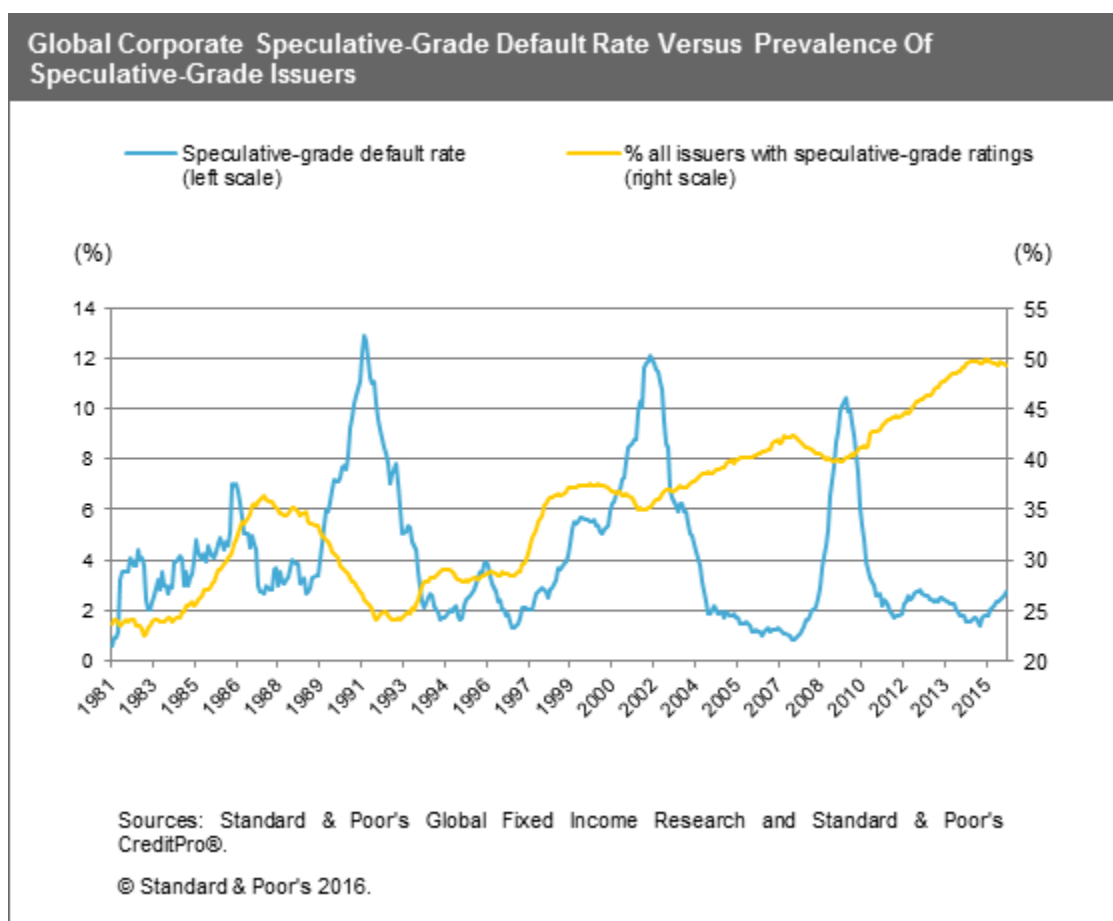


Chart 23

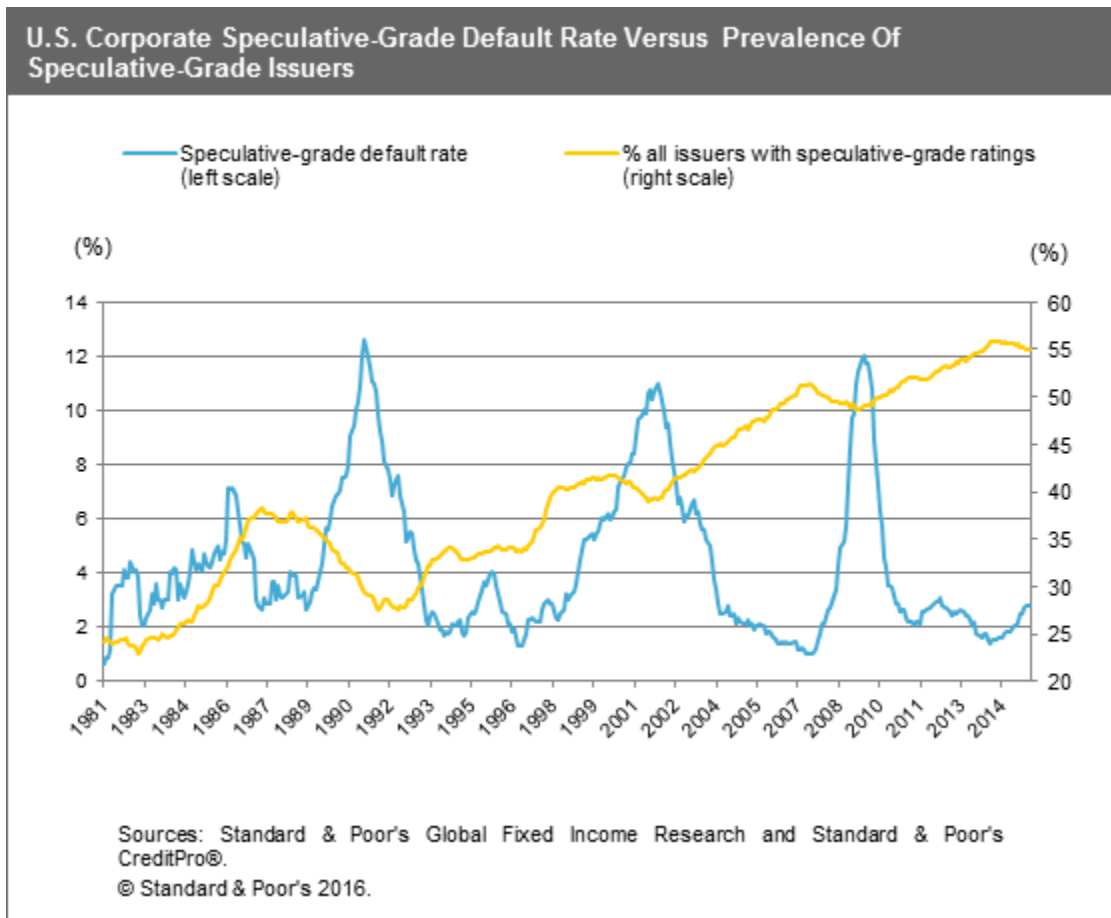
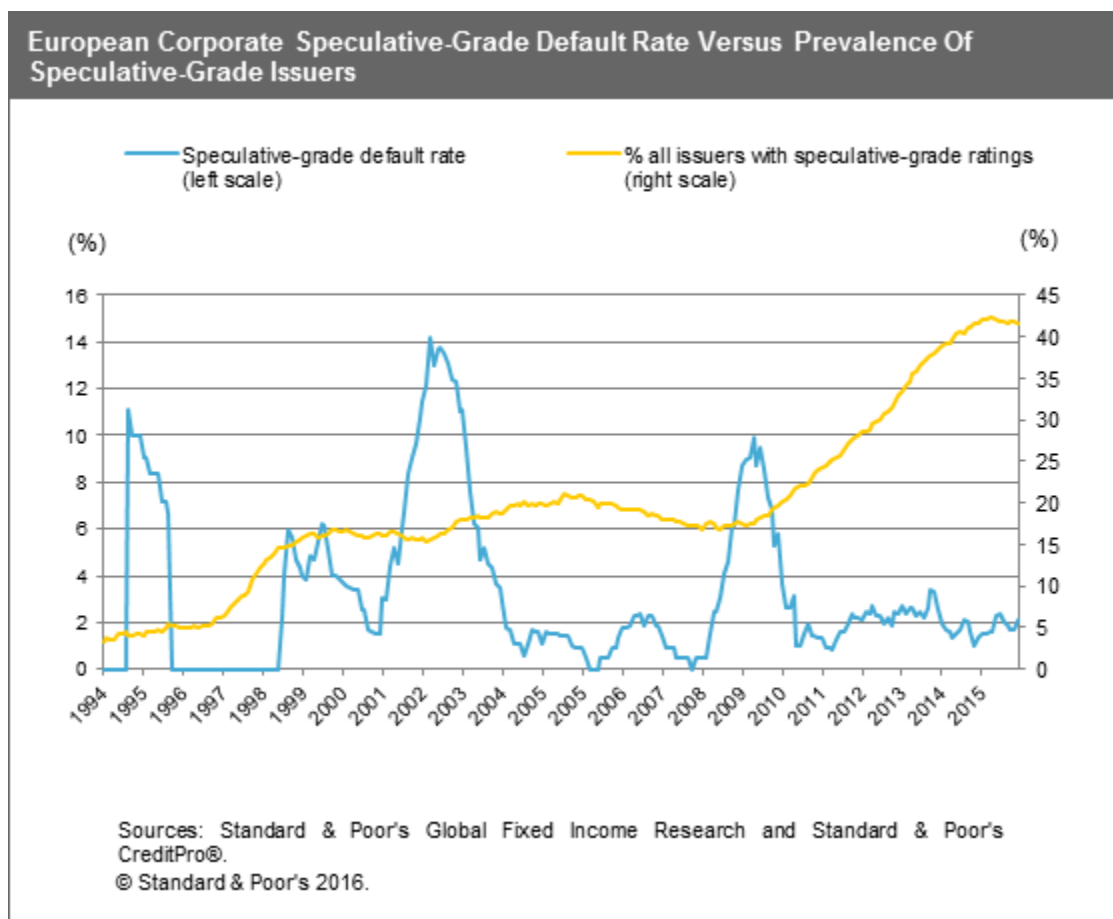


Chart 24



## Transition Tables And Cumulative Default Rates

An analysis of transition rates over the four quarters ended December 2015 suggests that ratings behavior continues to exhibit consistency with long-term trends, showing a negative correspondence between ratings and observed frequency of default. Investment-grade-rated issuers--globally as well as in the U.S. and Europe--tend to exhibit greater rating stability (as measured by the frequency of rating transition) than their speculative-grade counterparts (see table 20). For instance, 89.9% of issuers rated 'A' at the beginning of 2015 were still rated 'A' by Dec. 31, 2015, whereas the comparable share for issuers rated 'B' was only 76%. The same relationship holds even when analyzing the transition rates by regions.

Over the past few years, events such as the downgrade of the U.S. in 2011 and the lingering effects of the financial crisis on European sovereigns have led to the downgrades of many of the higher-rated financial institutions and insurance companies. Meanwhile, among nonfinancial entities, there has been a more gradual trend of increased willingness to operate with higher leverage in order to expand businesses or finance acquisitions. These factors, combined with a growing tolerance by asset managers to invest in lower-quality companies, has led to a diminished number of 'AAA' rated companies over time. For example, at the start of 2008, 'AAA' rated issuers totaled 89 globally.

Since then, that number fell to 16 at the start of 2016. By comparison, the largest rating category--the 'BBB' category--had more than 1,400 issuers at the start of 2008 and roughly 1,800 at the start of 2016. Because of the extremely small size of the 'AAA' rating category, the downgrade of even one issuer will have a large effect on this segment's stability rate. However, in 2015, there were no downgrades among the 'AAA' category (see table 20). In fact, one Dutch issuer (Nederlandse Waterschapsbank N.V.) joined the ranks of the 'AAA' category on Nov. 24, 2015. This was the first time since December 2010 that an issuer was upgraded to the 'AAA' category.

Over the long term (1981-2015), heightened ratings stability is broadly consistent with higher ratings (see table 21). A key observation when analyzing transition matrices that present averages computed over multiple static pools is that the standard deviations associated with each transition point in the matrix are large relative to the averages (outside of stability rates).

**Table 20**

2015 One-Year Corporate Transition Rates By Region (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
<b>Global</b>									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.29	93.26	4.40	0.00	0.00	0.00	0.00	0.00	2.05
A	0.00	1.43	89.87	5.48	0.00	0.00	0.00	0.00	3.23
BBB	0.00	0.06	3.12	85.52	4.90	0.00	0.00	0.00	6.40
BB	0.00	0.00	0.00	3.63	79.97	6.87	0.24	0.16	9.13
B	0.00	0.00	0.00	0.15	3.58	76.04	4.57	2.39	13.27
CCC/C	0.00	0.00	0.00	0.00	0.00	5.85	49.71	25.73	18.71
<b>U.S.</b>									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	94.16	2.60	0.00	0.00	0.00	0.00	0.00	3.25
A	0.00	0.57	91.30	5.48	0.00	0.00	0.00	0.00	2.65
BBB	0.00	0.13	3.47	89.20	1.80	0.00	0.00	0.00	5.40
BB	0.00	0.00	0.00	3.38	80.96	6.94	0.36	0.18	8.19
B	0.00	0.00	0.00	0.17	2.49	77.18	5.39	2.41	12.37
CCC/C	0.00	0.00	0.00	0.00	0.00	2.74	49.32	30.14	17.81
<b>Europe</b>									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	1.00	96.00	1.00	0.00	0.00	0.00	0.00	0.00	2.00
A	0.00	1.73	87.38	7.67	0.00	0.00	0.00	0.00	3.22
BBB	0.00	0.00	3.85	87.64	1.65	0.00	0.00	0.00	6.87
BB	0.00	0.00	0.00	6.25	74.52	7.69	0.00	0.00	11.54
B	0.00	0.00	0.00	0.26	7.07	74.08	3.14	0.79	14.66
CCC/C	0.00	0.00	0.00	0.00	0.00	6.67	40.00	33.33	20.00
<b>Emerging markets</b>									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	96.88	3.13	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	4.74	88.95	3.68	0.00	0.00	0.00	0.00	2.63

**Table 20**

2015 One-Year Corporate Transition Rates By Region (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
BBB	0.00	0.00	2.59	76.51	14.22	0.00	0.00	0.00	6.68
BB	0.00	0.00	0.00	3.01	80.95	6.52	0.00	0.25	9.27
B	0.00	0.00	0.00	0.00	3.40	74.38	2.47	4.01	15.74
CCC/C	0.00	0.00	0.00	0.00	0.00	10.17	54.24	16.95	18.64

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

This study--in line with previous default studies--confirms that over the long term (1981-2015), higher ratings are more stable than lower ratings. 'AAA' rated issuers were still rated 'AAA' one year later 87.1% of the time, and 'CCC'/'C' ratings remained 'CCC'/'C' 44.2% of the time. These long-term relationships do not change even when default rates are calculated over longer time horizons (see table 21) or when broken out by region (see table 22). In contrast, the relationship is slightly more discontinuous when we examine the rating transitions across modifiers (i.e., a plus or minus after a rating), but these variations are likely a result of sample size variations, and we do not consider them significant (see table 23). For example, 'AA+' rated issuers were still rated 'AA+' one year later 77.3% of the time, and 'AA' rated issuers were still rated 'AA' one year later 80.1% of the time.

**Table 21**

Global Corporate Average Transition Rates (1981-2015) (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
<b>One-year</b>									
AAA	87.08	9.00	0.53	0.05	0.08	0.03	0.05	0.00	3.18
	(7.14)	(7.16)	(0.83)	(0.25)	(0.25)	(0.17)	(0.35)	(0.00)	(2.44)
AA	0.53	86.69	8.06	0.53	0.06	0.07	0.02	0.02	4.02
	(0.52)	(5.32)	(4.28)	(0.69)	(0.20)	(0.21)	(0.07)	(0.08)	(1.94)
A	0.03	1.81	87.65	5.39	0.33	0.13	0.02	0.06	4.58
	(0.09)	(1.02)	(3.55)	(2.14)	(0.39)	(0.27)	(0.07)	(0.11)	(1.81)
BBB	0.01	0.11	3.55	85.43	3.82	0.52	0.12	0.19	6.24
	(0.04)	(0.16)	(1.68)	(3.80)	(1.56)	(0.72)	(0.23)	(0.26)	(1.63)
BB	0.01	0.03	0.13	5.08	76.78	6.96	0.64	0.73	9.63
	(0.06)	(0.09)	(0.27)	(1.89)	(4.47)	(3.21)	(0.77)	(0.87)	(2.46)
B	0.00	0.03	0.09	0.21	5.25	74.27	4.39	3.77	11.99
	(0.00)	(0.09)	(0.22)	(0.22)	(2.07)	(4.37)	(2.25)	(3.37)	(2.25)
CCC/C	0.00	0.00	0.14	0.20	0.61	12.84	44.19	26.36	15.66
	(0.00)	(0.00)	(0.46)	(0.71)	(0.99)	(8.25)	(9.32)	(11.76)	(5.49)
<b>Three-year</b>									
AAA	65.52	21.93	2.37	0.32	0.19	0.08	0.11	0.13	9.35
	(11.57)	(12.19)	(1.72)	(0.76)	(0.45)	(0.30)	(0.42)	(0.37)	(5.36)
AA	1.24	65.31	18.94	2.17	0.37	0.23	0.03	0.13	11.58
	(0.81)	(9.06)	(6.16)	(1.35)	(0.51)	(0.46)	(0.08)	(0.19)	(4.13)
A	0.06	4.23	68.15	11.89	1.38	0.48	0.10	0.27	13.43
	(0.10)	(2.07)	(6.14)	(2.78)	(0.99)	(0.63)	(0.14)	(0.28)	(3.58)

**Table 21**

Global Corporate Average Transition Rates (1981-2015) (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
BBB	0.02	0.31	8.57	64.00	7.05	1.75	0.31	0.95	17.04
	(0.07)	(0.41)	(3.15)	(7.00)	(2.08)	(1.35)	(0.39)	(0.97)	(3.34)
BB	0.01	0.06	0.56	11.42	46.05	11.67	1.30	4.21	24.72
	(0.06)	(0.14)	(0.72)	(3.33)	(6.83)	(2.73)	(0.96)	(3.58)	(4.30)
B	0.00	0.03	0.24	0.88	10.75	41.08	4.56	13.13	29.32
	(0.06)	(0.12)	(0.45)	(0.79)	(3.20)	(5.91)	(1.76)	(7.83)	(4.84)
CCC/C	0.00	0.00	0.15	0.65	1.69	16.67	10.74	41.42	28.68
	(0.00)	(0.00)	(0.55)	(1.30)	(1.81)	(7.13)	(6.32)	(12.94)	(8.87)
<b>Five-year</b>									
AAA	49.52	28.22	4.88	0.82	0.25	0.16	0.08	0.35	15.71
	(11.96)	(13.15)	(2.64)	(1.54)	(0.47)	(0.41)	(0.28)	(0.60)	(6.55)
AA	1.53	49.71	25.09	3.81	0.61	0.40	0.05	0.35	18.44
	(0.90)	(7.45)	(4.70)	(1.57)	(0.63)	(0.60)	(0.10)	(0.38)	(4.60)
A	0.08	5.30	54.54	15.13	2.23	0.75	0.16	0.59	21.21
	(0.10)	(2.34)	(6.54)	(2.26)	(1.06)	(0.88)	(0.18)	(0.42)	(4.08)
BBB	0.03	0.49	10.45	50.53	7.64	2.38	0.42	2.03	26.03
	(0.08)	(0.55)	(3.35)	(7.39)	(1.79)	(1.46)	(0.40)	(1.44)	(4.21)
BB	0.01	0.08	1.09	12.83	30.07	11.12	1.34	8.07	35.37
	(0.06)	(0.19)	(1.01)	(3.36)	(6.21)	(2.24)	(0.93)	(4.87)	(4.50)
B	0.02	0.03	0.30	1.67	10.66	24.39	2.92	19.88	40.14
	(0.11)	(0.10)	(0.59)	(1.25)	(2.83)	(5.45)	(1.02)	(8.87)	(5.62)
CCC/C	0.00	0.00	0.13	0.74	2.96	12.28	2.61	46.99	34.28
	(0.00)	(0.00)	(0.52)	(1.91)	(2.15)	(4.77)	(3.89)	(12.74)	(9.48)
<b>Seven-year</b>									
AAA	38.69	30.81	7.04	1.52	0.28	0.20	0.11	0.54	20.81
	(10.43)	(11.65)	(2.86)	(1.90)	(0.51)	(0.43)	(0.31)	(0.75)	(6.58)
AA	1.57	38.98	28.16	4.97	0.81	0.41	0.03	0.58	24.49
	(0.91)	(4.92)	(3.80)	(1.55)	(0.60)	(0.51)	(0.09)	(0.53)	(4.47)
A	0.08	5.49	45.09	16.77	2.75	0.89	0.16	1.02	27.74
	(0.12)	(1.89)	(5.83)	(1.50)	(1.12)	(0.95)	(0.18)	(0.47)	(3.78)
BBB	0.04	0.63	10.76	41.49	7.45	2.56	0.41	3.15	33.52
	(0.12)	(0.61)	(2.94)	(6.35)	(0.89)	(1.13)	(0.34)	(1.60)	(3.72)
BB	0.00	0.09	1.46	12.45	21.35	9.76	1.03	11.56	42.30
	(0.00)	(0.19)	(1.11)	(3.36)	(5.37)	(2.29)	(0.69)	(5.05)	(3.80)
B	0.01	0.02	0.41	2.10	8.70	15.28	1.76	24.95	46.78
	(0.08)	(0.09)	(0.62)	(1.57)	(1.79)	(4.18)	(0.63)	(7.75)	(5.30)
CCC/C	0.00	0.00	0.26	0.98	3.14	8.14	1.34	50.31	35.84
	(0.00)	(0.00)	(0.64)	(2.29)	(1.75)	(4.26)	(2.15)	(12.47)	(9.79)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.



**Table 22**

Average One-Year Corporate Transition Rates (1981-2015) (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
<b>U.S.</b>									
AAA	87.31	8.67	0.58	0.04	0.12	0.04	0.04	0.00	3.19
	(10.17)	(10.34)	(1.16)	(0.21)	(0.37)	(0.28)	(0.28)	(0.00)	(2.52)
AA	0.54	86.84	7.63	0.60	0.08	0.11	0.04	0.04	4.12
	(0.52)	(6.33)	(4.64)	(0.84)	(0.23)	(0.29)	(0.11)	(0.16)	(2.48)
A	0.05	1.78	87.67	5.46	0.42	0.16	0.03	0.08	4.35
	(0.12)	(1.21)	(4.06)	(2.54)	(0.50)	(0.34)	(0.11)	(0.16)	(1.85)
BBB	0.01	0.13	3.56	85.87	3.86	0.63	0.11	0.23	5.59
	(0.05)	(0.18)	(2.00)	(4.74)	(1.79)	(0.90)	(0.17)	(0.32)	(2.00)
BB	0.02	0.05	0.18	5.00	76.65	7.81	0.61	0.81	8.86
	(0.09)	(0.12)	(0.30)	(2.34)	(5.21)	(4.00)	(0.72)	(0.88)	(2.66)
B	0.00	0.04	0.12	0.22	4.77	75.27	4.49	3.93	11.17
	(0.00)	(0.10)	(0.25)	(0.25)	(2.09)	(4.77)	(2.56)	(3.46)	(2.42)
CCC/C	0.00	0.00	0.20	0.29	0.73	12.01	44.27	28.21	14.30
	(0.00)	(0.00)	(0.59)	(0.86)	(1.23)	(8.28)	(9.10)	(11.79)	(5.43)
<b>Europe</b>									
AAA	82.74	11.23	0.62	0.21	0.00	0.00	0.21	0.00	4.99
	(7.68)	(8.47)	(1.71)	(1.23)	(0.00)	(0.00)	(1.02)	(0.00)	(4.51)
AA	0.30	84.73	10.52	0.60	0.00	0.00	0.00	0.00	3.85
	(0.51)	(7.18)	(6.49)	(1.21)	(0.00)	(0.00)	(0.00)	(0.00)	(1.95)
A	0.01	1.98	86.44	6.19	0.20	0.01	0.00	0.04	5.12
	(0.05)	(1.44)	(4.46)	(3.43)	(0.37)	(0.07)	(0.00)	(0.10)	(1.91)
BBB	0.00	0.11	4.43	83.32	4.07	0.40	0.11	0.09	7.48
	(0.00)	(0.22)	(1.95)	(3.55)	(2.75)	(0.57)	(0.31)	(0.24)	(2.67)
BB	0.00	0.00	0.10	5.44	71.95	7.98	0.46	0.46	13.62
	(0.00)	(0.00)	(0.73)	(2.40)	(6.54)	(3.56)	(1.14)	(0.96)	(4.66)
B	0.00	0.00	0.05	0.43	7.28	70.73	4.19	2.60	14.71
	(0.00)	(0.00)	(0.29)	(0.63)	(2.92)	(7.25)	(2.73)	(3.60)	(5.81)
CCC/C	0.00	0.00	0.00	0.00	0.00	14.49	38.16	28.02	19.32
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(13.07)	(18.37)	(19.58)	(12.40)
<b>Emerging markets</b>									
AAA	93.44	3.28	0.00	0.00	0.00	0.00	0.00	0.00	3.28
	(18.25)	(11.59)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(14.89)
AA	1.47	88.24	6.99	0.37	0.00	0.00	0.00	0.00	2.94
	(5.84)	(13.75)	(9.73)	(2.17)	(0.00)	(0.00)	(0.00)	(0.00)	(4.44)
A	0.00	2.08	89.90	4.75	0.43	0.43	0.00	0.05	2.35
	(0.00)	(1.64)	(5.84)	(4.58)	(0.91)	(1.35)	(0.00)	(0.17)	(1.22)
BBB	0.00	0.02	2.79	85.87	4.71	0.48	0.24	0.14	5.74
	(0.00)	(0.11)	(2.50)	(6.13)	(4.73)	(1.47)	(1.23)	(0.43)	(2.13)
BB	0.00	0.00	0.00	4.90	79.72	4.49	0.85	0.69	9.34

**Table 22**

Average One-Year Corporate Transition Rates (1981-2015) (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.00)	(0.00)	(0.00)	(2.55)	(5.09)	(2.44)	(2.50)	(1.32)	(3.75)
B	0.00	0.00	0.00	0.06	6.58	71.85	3.81	3.19	14.52
	(0.00)	(0.00)	(0.00)	(0.26)	(4.15)	(5.66)	(3.44)	(3.89)	(3.37)
CCC/C	0.00	0.00	0.00	0.00	0.36	16.43	47.11	17.51	18.59
	(0.00)	(0.00)	(0.00)	(0.00)	(0.88)	(12.49)	(13.84)	(16.54)	(11.49)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. For Europe and emerging markets, calculations are for 1996-2015 due to sample size considerations. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 23**

Average One-Year Transition Rates For Global Corporates By Rating Modifier (1981-2015) (%)																		
From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	D	NR
AAA	87.08	5.74	2.56	0.69	0.16	0.24	0.13	0.00	0.05	0.00	0.03	0.05	0.00	0.00	0.03	0.00	0.00	3.18
	(7.14)	(5.99)	(3.30)	(1.04)	(0.45)	(0.56)	(0.35)	(0.00)	(0.25)	(0.00)	(0.17)	(0.19)	(0.00)	(0.00)	(0.17)	(0.00)	(0.00)	(2.44)
AA+	2.47	77.29	11.64	3.76	0.77	0.41	0.21	0.05	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.24
	(3.63)	(10.59)	(7.19)	(4.14)	(2.41)	(0.85)	(0.49)	(0.25)	(0.69)	(0.23)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(2.97)
AA	0.44	1.30	80.09	8.73	2.89	1.23	0.39	0.41	0.14	0.09	0.05	0.03	0.02	0.02	0.00	0.02	0.02	4.10
	(0.51)	(1.60)	(8.88)	(6.15)	(2.62)	(1.24)	(0.66)	(0.83)	(0.36)	(0.24)	(0.16)	(0.13)	(0.10)	(0.12)	(0.00)	(0.09)	(0.09)	(2.63)
AA-	0.05	0.12	4.00	77.78	10.11	2.42	0.63	0.29	0.17	0.08	0.03	0.00	0.00	0.03	0.09	0.00	0.03	4.18
	(0.13)	(0.32)	(4.38)	(7.36)	(4.94)	(2.64)	(0.84)	(0.50)	(0.46)	(0.26)	(0.21)	(0.00)	(0.00)	(0.15)	(0.39)	(0.00)	(0.11)	(2.08)
A+	0.00	0.07	0.50	4.64	77.34	9.13	2.31	0.67	0.36	0.09	0.07	0.10	0.01	0.08	0.03	0.00	0.06	4.54
	(0.00)	(0.20)	(0.70)	(2.59)	(5.45)	(3.08)	(1.51)	(0.66)	(0.44)	(0.19)	(0.17)	(0.26)	(0.05)	(0.20)	(0.14)	(0.00)	(0.15)	(1.94)
A	0.04	0.05	0.24	0.47	5.19	77.95	7.08	2.58	0.96	0.30	0.13	0.12	0.08	0.10	0.02	0.00	0.06	4.61
	(0.13)	(0.14)	(0.52)	(0.48)	(2.04)	(5.23)	(3.08)	(1.72)	(0.95)	(0.39)	(0.21)	(0.28)	(0.32)	(0.35)	(0.10)	(0.00)	(0.12)	(2.28)
A-	0.05	0.01	0.07	0.16	0.50	6.70	76.58	7.67	2.31	0.64	0.16	0.16	0.14	0.13	0.03	0.01	0.07	4.57
	(0.20)	(0.05)	(0.16)	(0.28)	(0.63)	(3.32)	(5.66)	(3.15)	(1.52)	(0.65)	(0.34)	(0.36)	(0.24)	(0.31)	(0.08)	(0.08)	(0.19)	(1.94)
BBB+	0.00	0.01	0.07	0.08	0.24	0.85	7.34	73.99	8.52	1.83	0.42	0.35	0.16	0.19	0.12	0.03	0.12	5.62
	(0.00)	(0.05)	(0.17)	(0.19)	(0.46)	(1.07)	(3.05)	(5.81)	(3.41)	(1.48)	(0.55)	(0.59)	(0.23)	(0.44)	(0.31)	(0.10)	(0.28)	(1.97)
BBB	0.01	0.01	0.05	0.03	0.12	0.36	1.13	7.50	75.04	6.42	1.45	0.68	0.31	0.26	0.13	0.04	0.18	6.21
	(0.08)	(0.08)	(0.14)	(0.13)	(0.23)	(0.71)	(1.01)	(3.15)	(4.53)	(2.37)	(1.07)	(0.61)	(0.50)	(0.47)	(0.40)	(0.10)	(0.29)	(2.07)
BBB-	0.01	0.01	0.02	0.05	0.06	0.17	0.29	1.29	9.22	71.57	5.84	2.22	0.87	0.41	0.27	0.17	0.28	6.99
	(0.08)	(0.05)	(0.06)	(0.21)	(0.18)	(0.41)	(0.60)	(1.18)	(3.26)	(5.32)	(2.63)	(1.55)	(0.78)	(0.85)	(0.49)	(0.47)	(0.42)	(2.33)
BB+	0.05	0.00	0.00	0.04	0.02	0.11	0.09	0.50	1.94	11.80	63.84	6.91	2.97	1.07	0.68	0.21	0.37	8.96
	(0.24)	(0.00)	(0.00)	(0.13)	(0.10)	(0.41)	(0.30)	(0.73)	(1.93)	(4.42)	(6.07)	(3.01)	(2.03)	(1.69)	(1.23)	(0.36)	(0.66)	(2.93)
BB	0.00	0.00	0.04	0.01	0.00	0.07	0.06	0.20	0.59	2.31	9.80	64.71	7.83	2.30	1.09	0.37	0.62	9.36
	(0.00)	(0.00)	(0.22)	(0.07)	(0.00)	(0.39)	(0.23)	(0.44)	(0.88)	(2.24)	(4.41)	(5.38)	(2.79)	(1.56)	(1.39)	(0.60)	(0.69)	(3.19)
BB-	0.00	0.00	0.00	0.01	0.01	0.01	0.06	0.11	0.26	0.41	1.95	9.38	63.02	8.67	3.17	0.85	1.05	10.27
	(0.00)	(0.00)	(0.00)	(0.10)	(0.09)	(0.08)	(0.30)	(0.26)	(0.46)	(0.66)	(1.68)	(4.02)	(5.63)	(3.95)	(1.68)	(0.87)	(1.49)	(2.68)
B+	0.00	0.01	0.00	0.03	0.00	0.03	0.07	0.05	0.06	0.12	0.30	1.55	7.94	63.47	8.57	2.56	2.20	11.20
	(0.00)	(0.06)	(0.00)	(0.15)	(0.00)	(0.09)	(0.21)	(0.14)	(0.17)	(0.22)	(0.36)	(1.10)	(3.50)	(5.59)	(3.39)	(1.33)	(2.07)	(2.61)
B	0.00	0.00	0.01	0.01	0.00	0.04	0.05	0.02	0.07	0.04	0.15	0.29	1.35	8.23	60.95	8.42	4.04	12.17
	(0.00)	(0.00)	(0.10)	(0.07)	(0.00)	(0.22)	(0.41)	(0.08)	(0.33)	(0.11)	(0.40)	(0.61)	(1.31)	(3.31)	(7.64)	(3.60)	(4.48)	(2.69)
B-	0.00	0.00	0.00	0.00	0.02	0.04	0.00	0.09	0.07	0.13	0.11	0.18	0.49	2.45	10.73	53.35	7.21	13.64

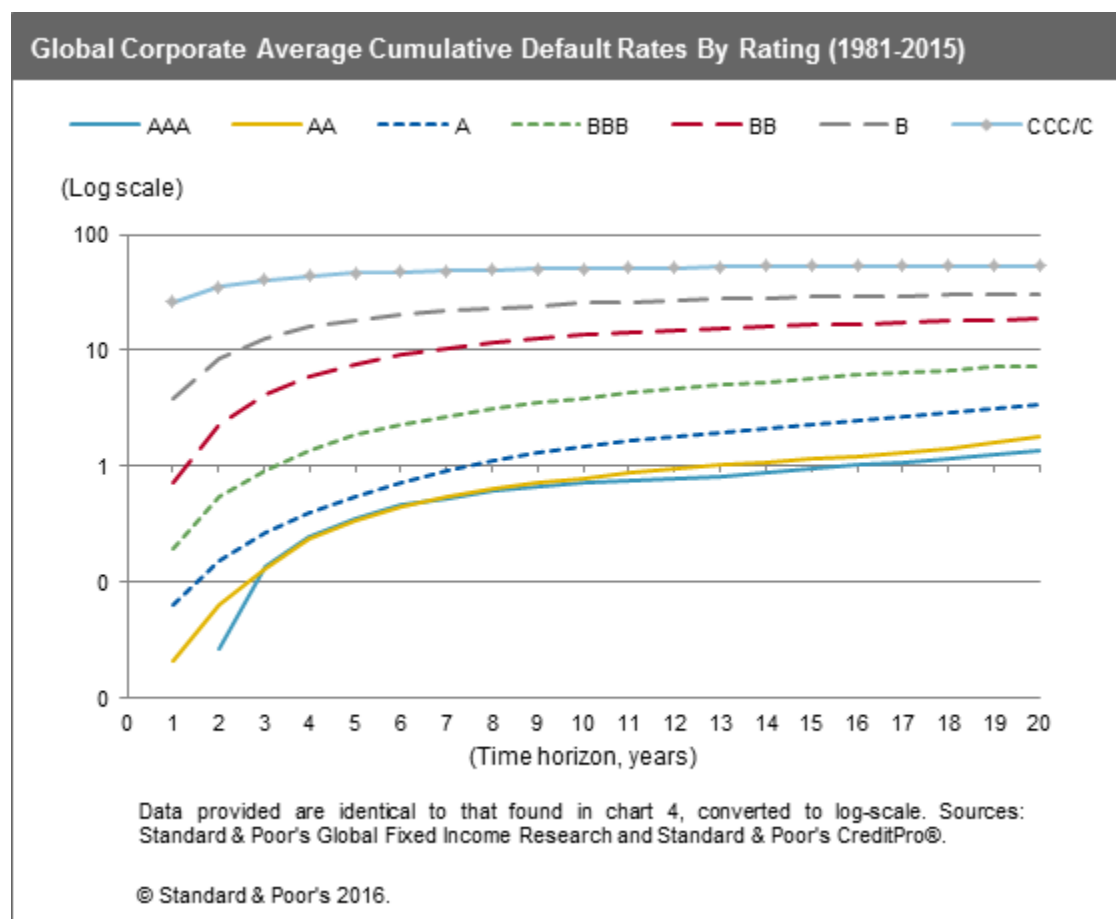
**Table 23**

Average One-Year Transition Rates For Global Corporates By Rating Modifier (1981-2015) (%) (cont.)																		
From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	D	NR
	(0.00)	(0.00)	(0.00)	(0.00)	(0.33)	(0.33)	(0.00)	(0.36)	(0.20)	(0.48)	(0.49)	(0.96)	(0.96)	(2.38)	(5.50)	(7.44)	(6.59)	(4.43)
CCC/C	0.00	0.00	0.00	0.00	0.03	0.00	0.10	0.07	0.07	0.07	0.03	0.17	0.41	1.15	2.78	8.91	26.36	15.66
	(0.00)	(0.00)	(0.00)	(0.00)	(0.24)	(0.00)	(0.40)	(0.50)	(0.34)	(0.40)	(0.25)	(0.54)	(0.80)	(1.63)	(3.21)	(5.76)	(11.76)	(5.49)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Over each time span, lower ratings correspond to higher default rates (see table 24 and chart 25). This also holds true in every region worldwide (see table 25).

**Chart 25**



**Table 24**

Global Corporate Average Cumulative Default Rates (1981-2015) (%)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.00	0.03	0.13	0.24	0.35	0.46	0.52	0.61	0.66	0.72	0.76	0.79	0.82	0.89	0.96
AA	0.02	0.06	0.13	0.23	0.34	0.45	0.55	0.63	0.71	0.79	0.87	0.94	1.01	1.08	1.15

**Table 24**

Global Corporate Average Cumulative Default Rates (1981-2015) (%) (cont.)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	0.06	0.15	0.26	0.40	0.55	0.72	0.92	1.10	1.28	1.48	1.65	1.81	1.97	2.11	2.28
BBB	0.19	0.53	0.91	1.37	1.84	2.30	2.71	3.11	3.50	3.89	4.31	4.66	4.99	5.33	5.68
BB	0.73	2.25	4.07	5.86	7.51	9.03	10.34	11.49	12.53	13.45	14.20	14.85	15.39	15.87	16.39
B	3.77	8.56	12.66	15.82	18.27	20.26	21.89	23.19	24.32	25.37	26.26	26.97	27.61	28.21	28.80
CCC/C	26.36	35.54	40.83	44.05	46.43	47.28	48.24	49.05	49.95	50.60	51.09	51.73	52.57	53.25	53.25
Investment grade	0.10	0.28	0.48	0.73	0.98	1.24	1.49	1.72	1.94	2.17	2.40	2.59	2.77	2.95	3.14
Speculative grade	3.80	7.44	10.60	13.15	15.24	16.94	18.38	19.58	20.65	21.61	22.41	23.08	23.69	24.23	24.75
All rated	1.49	2.94	4.21	5.27	6.17	6.92	7.57	8.12	8.62	9.09	9.49	9.83	10.13	10.41	10.70

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

The only exceptions occur when the number of defaults is low, or when the underlying population of issuers is very small--such as among the higher rating categories, at the rating modifier level (see table 26). Investment-grade-rated issuers 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, however, that 'AAA' rated companies are more risky than 'AA+' rated companies, but rather that both are very unlikely to default.

**Table 25**

Average Cumulative Default Rates For Corporates By Region (1981-2015) (%)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>U.S.</b>															
AAA	0.00	0.04	0.17	0.29	0.42	0.54	0.59	0.67	0.76	0.86	0.90	0.95	1.00	1.10	1.21
AA	0.04	0.08	0.18	0.32	0.46	0.61	0.76	0.88	0.98	1.09	1.19	1.28	1.37	1.45	1.55
A	0.08	0.21	0.37	0.56	0.75	0.97	1.22	1.45	1.70	1.95	2.18	2.38	2.58	2.75	2.95
BBB	0.23	0.61	1.02	1.54	2.10	2.65	3.15	3.65	4.15	4.64	5.12	5.50	5.86	6.23	6.60
BB	0.81	2.51	4.58	6.60	8.38	10.14	11.61	12.96	14.17	15.27	16.16	16.94	17.60	18.16	18.75
B	3.93	8.99	13.39	16.81	19.50	21.71	23.55	25.01	26.29	27.46	28.44	29.22	29.94	30.57	31.19
CCC/C	28.21	38.67	44.55	48.32	51.13	52.19	53.32	54.15	55.18	55.84	56.47	57.15	57.92	58.54	58.54
Investment grade	0.12	0.33	0.57	0.88	1.19	1.52	1.83	2.13	2.42	2.72	3.00	3.23	3.45	3.66	3.89
Speculative grade	4.13	8.18	11.72	14.58	16.90	18.84	20.47	21.84	23.07	24.17	25.08	25.85	26.54	27.13	27.70
All rated	1.76	3.52	5.07	6.37	7.45	8.39	9.18	9.87	10.50	11.08	11.57	11.98	12.35	12.68	13.01
<b>Europe</b>															
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
AA	0.00	0.03	0.07	0.14	0.22	0.30	0.34								
A	0.04	0.09	0.14	0.20	0.31	0.42	0.55								
BBB	0.09	0.25	0.42	0.59	0.71	0.98	1.23								
BB	0.46	1.48	2.50	3.21	4.40	5.35	6.30								
B	2.60	6.58	10.14	12.72	14.71	15.96	16.45								

**Table 25**

Average Cumulative Default Rates For Corporates By Region (1981-2015) (%) (cont.)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CCC/C	28.02	37.51	43.62	48.81	50.46	50.46	51.92								
Investment grade	0.05	0.12	0.20	0.30	0.40	0.54	0.68								
Speculative grade	2.85	5.66	8.05	9.79	11.33	12.35	13.13								
All rated	0.66	1.29	1.80	2.18	2.53	2.81	3.05								
<b>Emerging markets</b>															
AAA	0.00	0.00	0.00	0.00	0.00										
AA	0.00	0.00	0.00	0.00	0.00										
A	0.05	0.05	0.05	0.05	0.05										
BBB	0.14	0.69	1.29	2.02	2.68										
BB	0.69	2.11	3.68	5.21	6.40										
B	3.19	6.54	8.92	10.69	11.85										
CCC/C	17.51	21.35	23.89	24.64	25.45										
Investment grade	0.11	0.46	0.86	1.33	1.76										
Speculative grade	2.84	5.23	7.19	8.77	9.92										
All rated	1.66	3.18	4.48	5.60	6.45										

Note: Figures for Europe and the emerging markets are calculated for the period 1996-2015 due to sample size considerations. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 26**

Global Corporate Average Cumulative Default Rates By Rating Modifier (1981-2015) (%)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.00	0.03	0.14	0.25	0.35	0.47	0.52	0.61	0.67	0.73	0.76	0.79	0.82	0.89	0.96
AA+	0.00	0.06	0.06	0.11	0.17	0.23	0.29	0.35	0.41	0.47	0.54	0.61	0.68	0.75	0.82
AA	0.02	0.04	0.09	0.23	0.38	0.50	0.64	0.75	0.85	0.96	1.05	1.11	1.23	1.30	1.38
AA-	0.03	0.10	0.21	0.30	0.38	0.49	0.57	0.62	0.69	0.75	0.82	0.89	0.92	0.97	1.03
A+	0.06	0.12	0.25	0.40	0.52	0.62	0.75	0.89	1.04	1.21	1.36	1.53	1.73	1.96	2.14
A	0.07	0.18	0.28	0.42	0.57	0.77	0.97	1.16	1.38	1.63	1.84	2.00	2.14	2.22	2.41
A-	0.09	0.22	0.36	0.49	0.68	0.87	1.14	1.34	1.50	1.64	1.78	1.93	2.07	2.21	2.33
BBB+	0.15	0.41	0.70	0.98	1.26	1.59	1.84	2.11	2.41	2.71	3.00	3.20	3.46	3.80	4.19
BBB	0.23	0.56	0.85	1.26	1.67	2.08	2.46	2.83	3.23	3.63	4.07	4.47	4.79	4.92	5.16
BBB-	0.36	1.06	1.83	2.67	3.44	4.13	4.76	5.35	5.84	6.32	6.87	7.32	7.75	8.37	8.84
BB+	0.49	1.38	2.48	3.53	4.51	5.49	6.31	6.91	7.65	8.35	8.83	9.41	9.96	10.41	11.03
BB	0.76	2.25	4.25	6.01	7.68	9.01	10.22	11.20	12.12	12.91	13.69	14.37	14.70	14.93	15.27
BB-	1.22	3.70	6.17	8.50	10.52	12.49	14.14	15.73	17.03	18.17	19.04	19.69	20.39	21.09	21.68
B+	2.51	6.64	10.54	13.76	16.15	18.03	19.74	21.23	22.61	23.87	24.85	25.61	26.34	27.00	27.60
B	5.59	11.77	16.40	19.42	21.61	23.67	25.08	26.08	26.90	27.72	28.42	29.05	29.63	30.19	30.85

**Table 26**

Global Corporate Average Cumulative Default Rates By Rating Modifier (1981-2015) (%) (cont.)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
B-	8.74	16.36	21.49	25.01	27.82	29.82	31.46	32.51	33.18	33.76	34.56	35.17	35.44	35.75	36.10
CCC/C	27.22	36.41	41.59	44.64	46.99	47.84	48.79	49.59	50.48	51.12	51.61	52.24	53.08	53.74	53.74
Investment grade	0.12	0.32	0.54	0.80	1.06	1.32	1.56	1.79	2.02	2.25	2.47	2.66	2.84	3.02	3.21
Speculative grade	4.29	8.28	11.61	14.19	16.25	17.93	19.36	20.54	21.60	22.55	23.34	24.00	24.60	25.13	25.65
All rated	1.59	3.12	4.44	5.51	6.40	7.16	7.80	8.35	8.85	9.32	9.72	10.05	10.36	10.64	10.92

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

## Gini Ratios And Lorenz Curves

A quantitative analysis of the performance of S&P Global Ratings' ratings shows that corporate ratings continue to correlate with the level of default risk across several time horizons. To measure ratings performance, we plotted the cumulative share of defaulters against the cumulative share of issuers by rating in a Lorenz curve to visually render the accuracy of its rank ordering (for definition and methodology, refer to Appendix II). Over the long term, the global average one-year Gini coefficient is 82%, with a three-year of 75.3%, five-year of 71.8%, and seven-year of 69.6% (see charts 26-29).

**Table 27**

Corporate Gini Coefficients By Region (1981-2015)				
Region	--Time horizon--			
	One-year	Three-year	Five-year	Seven-year
<b>Global</b>				
Weighted average	82.02	75.30	71.79	69.57
Average	84.82	78.28	73.88	70.36
Standard deviation	(5.53)	(5.27)	(5.63)	(5.14)
<b>U.S.</b>				
Weighted average	80.41	73.20	69.82	67.72
Average	83.84	76.35	71.87	68.21
Standard deviation	(7.07)	(6.91)	(7.14)	(6.35)
<b>Europe</b>				
Weighted average	90.53	86.51	82.37	78.07
Average	92.04	88.68	82.04	73.72
Standard deviation	(5.26)	(5.68)	(6.62)	(10.61)

Note: Numbers in parentheses are standard deviations. Average and standard deviation for Europe calculated for the period 1996-2015 due to sample size considerations. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

As expected, the Gini coefficients decline over time because longer time horizons allow for greater opportunity for credit degradation among higher-rated entities. In the one-year global Lorenz curve, for example, 95.7% of defaults occurred in the speculative-grade category ('BB+' or lower), while ratings of 'BB+' or lower constituted only 37.5% of

all corporate ratings (see chart 26). Looking at the seven-year Lorenz curve, speculative-grade issuers constituted 86.6% of defaulters and only 34.5% of the entire sample (see chart 29). If the rank ordering of ratings had little predictive value, the cumulative share of defaulting corporate entities and the cumulative share of all entities at each rating would be nearly the same, producing a Gini ratio of zero.

**Table 28**

Gini Coefficients For Global Corporates By Broad Sector (1981-2015)				
--Time horizon--				
Sector	One-year	Three-year	Five-year	Seven-year
<b>Financial</b>				
Weighted average	78.84	68.05	60.55	55.63
Average	80.90	73.83	64.96	58.20
Standard deviation	(19.81)	(14.69)	(15.56)	(14.00)
<b>Nonfinancial</b>				
Weighted average	80.62	73.41	70.23	68.37
Average	84.16	77.15	73.11	69.83
Standard deviation	(6.19)	(5.39)	(5.69)	(5.24)

Note: Numbers in parentheses are standard deviations. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Chart 26

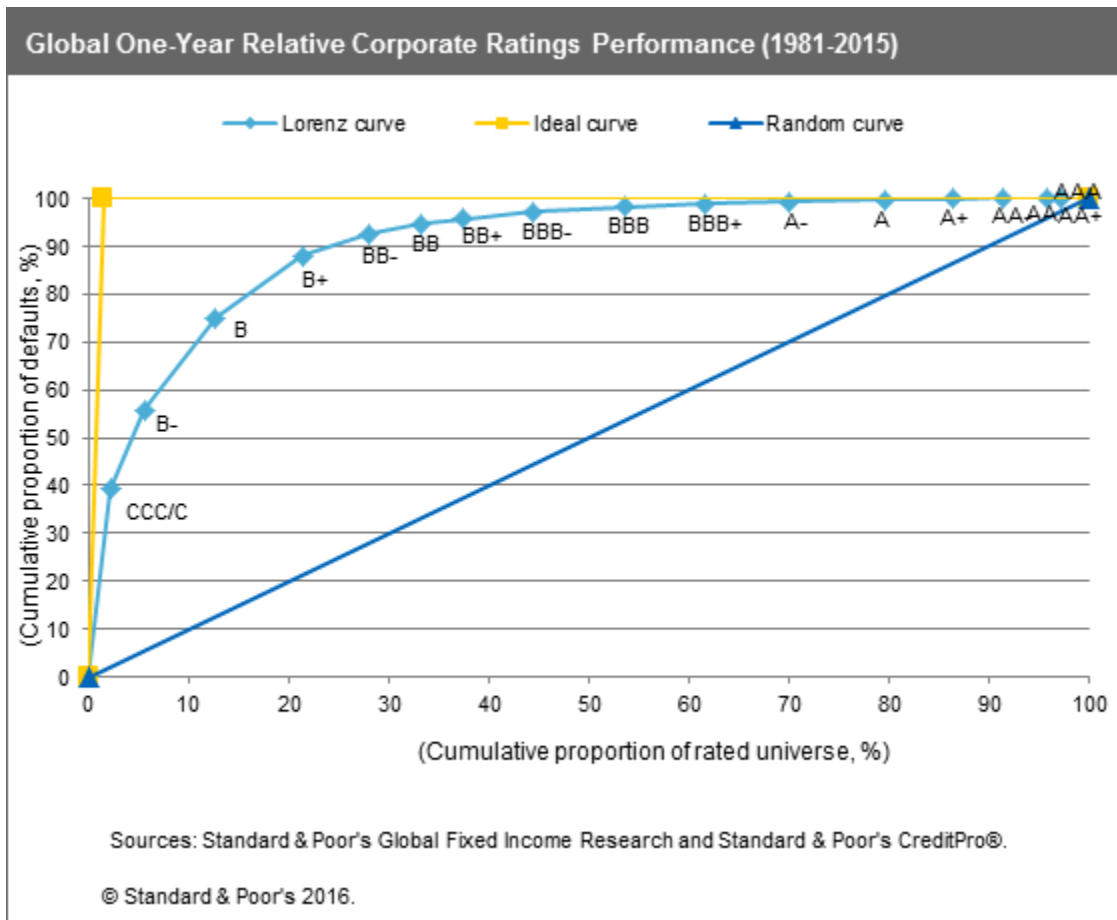




Chart 27

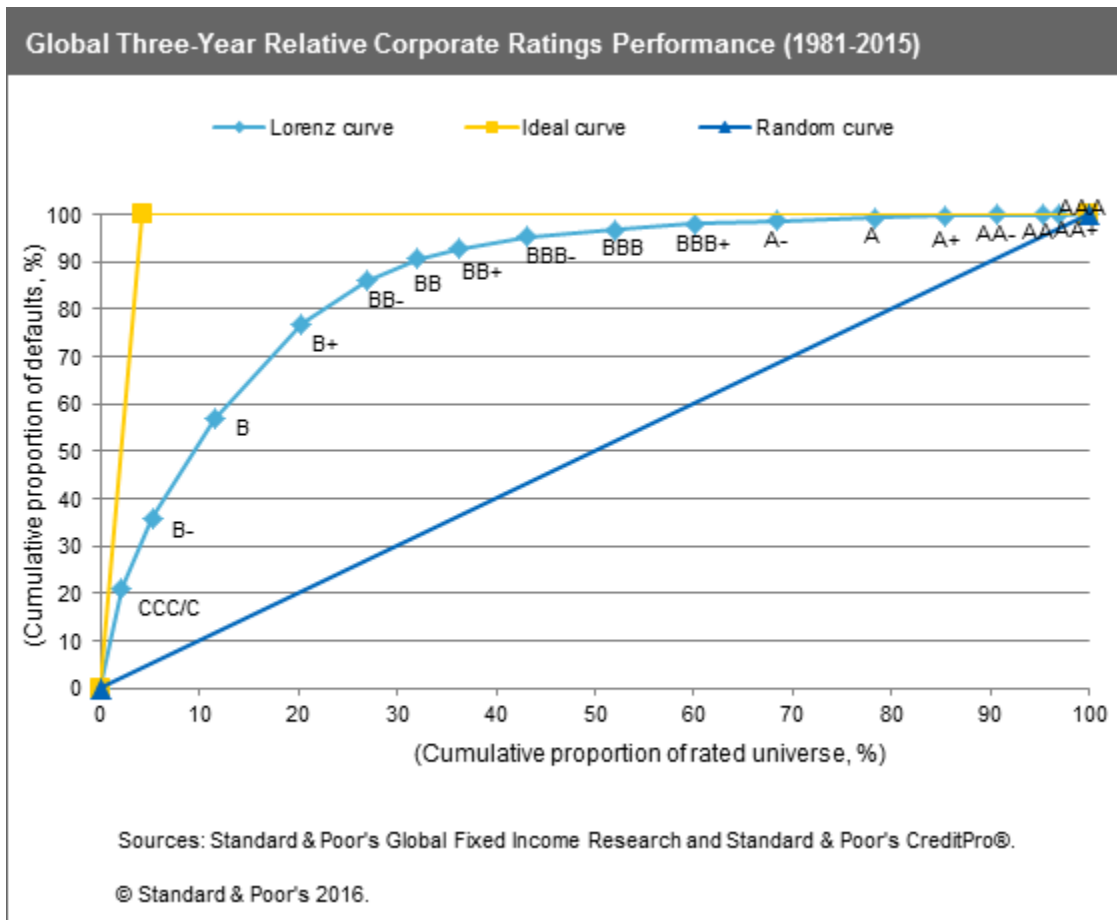


Chart 28

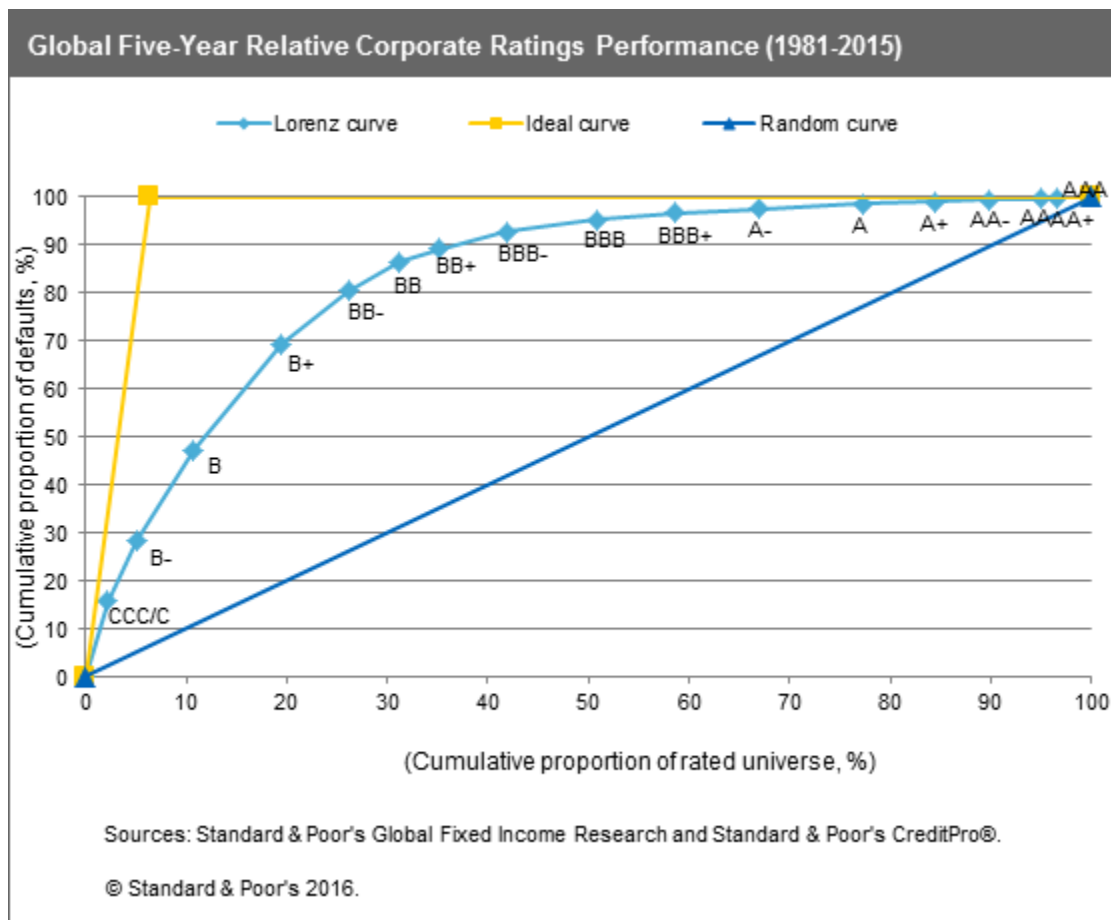


Chart 29

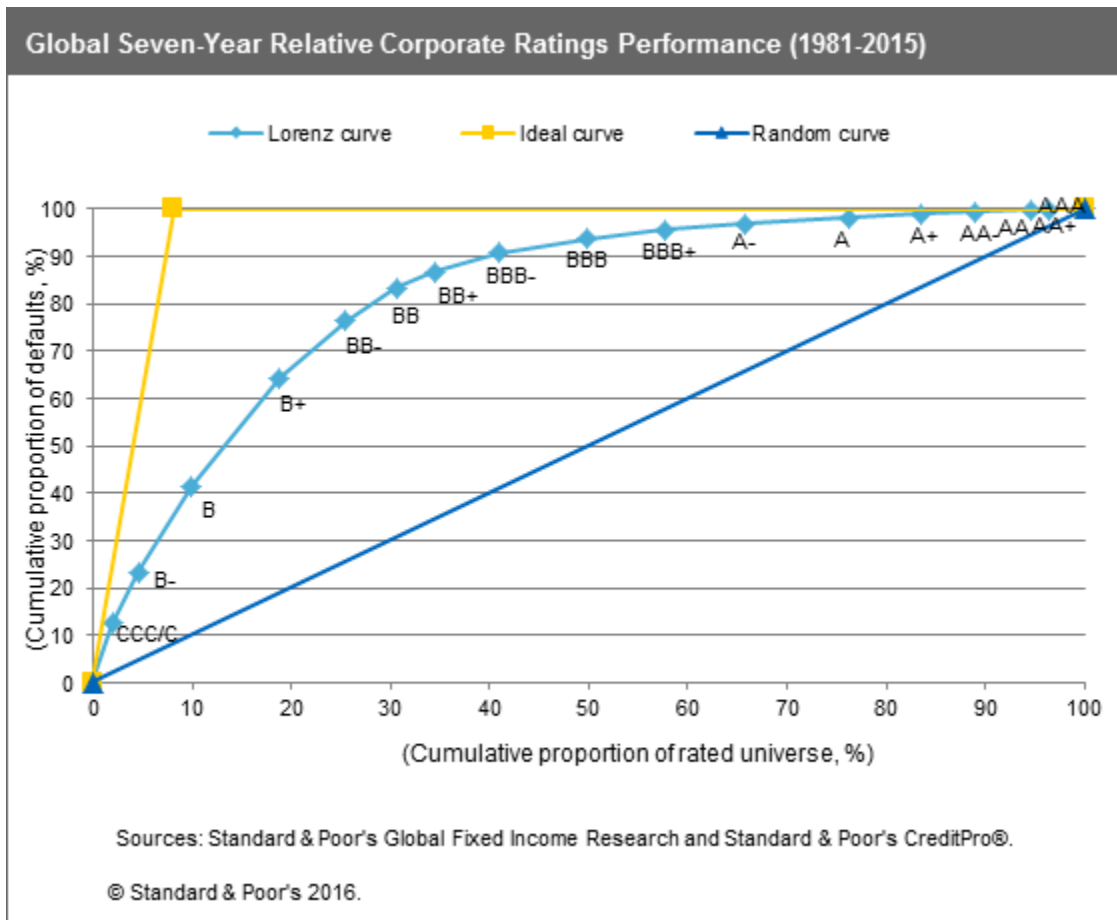
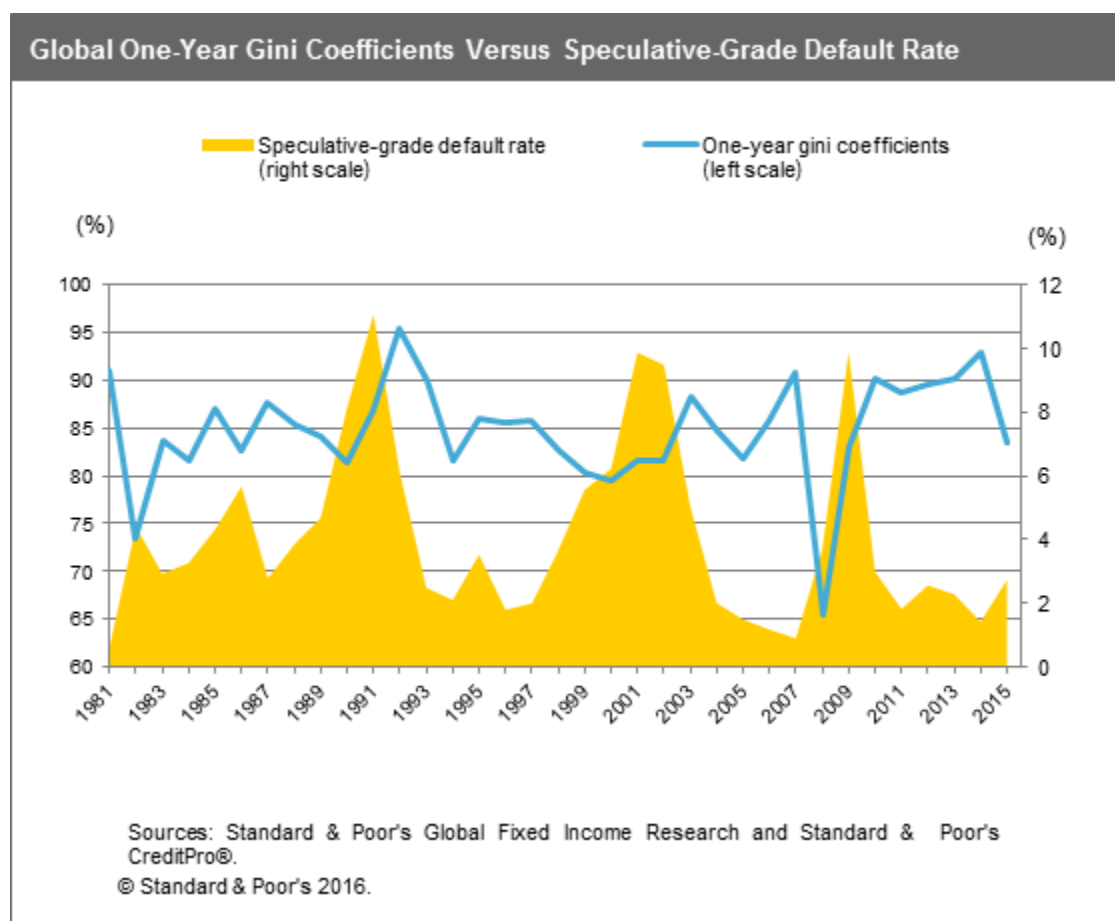


Chart 30



One-year Gini coefficients appear to be broadly cyclical, and negatively related to default rates (see chart 30). Trends in the one-year Gini ratio emerge during periods of both extremes in the default cycle, which is a reflection of the natural relationship between the two concepts. In periods of high defaults, there tends to be greater variation in the distribution of defaults across the ratings spectrum, which reduces the Gini. That is, when default pressure is high, economic conditions are such that the likelihood of companies from across the rating spectrum suffering a more rapid deterioration of credit quality is higher. The one-year Gini was 83.6% in 2015--the lowest since 2009, when the Gini was 83%. 2015 was also the year with the highest number of defaults since 2009 as well.

## Appendix I: Methodology And Definitions

This long-term corporate default and rating transition study uses the CreditPro database of long-term local currency issuer credit ratings. The analysis excludes public information ("pi") ratings and ratings based on the guarantee of another company or government entity. We also do not include short-term issuer ratings. S&P Global Ratings does not require all issuers with debt rated to have an issuer credit rating. Therefore, if an issuer has rated debt but not an issuer credit rating, we assign a proxy rating so that the CreditPro Corporate dataset accurately represents the complete universe of ratings. The local currency senior unsecured rating is the preferred debt-level rating used for the proxy

because this rating is usually consistent with the issuer credit rating. In a small number of cases, we used the subordinated debt rating or the senior secured rating as the proxy.

An S&P Global Ratings' issuer credit rating is a forward-looking opinion about an obligor's overall creditworthiness. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. It does not apply to any specific financial obligation because it does not take into account the nature and provisions of any single obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation. Counterparty credit ratings, corporate credit ratings, and sovereign credit ratings are all forms of issuer credit ratings. Issuer credit ratings can be either long term or short term.

S&P Global Fixed Income Research's ongoing enhancement of the database used to generate this study could 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 analyzes the rating histories of 18,258 companies that S&P Global Ratings rated as of Dec. 31, 1980, or that were first rated between that date and Dec. 31, 2015. These include industrials, utilities, financial institutions, and insurance companies around the world with long-term local currency ratings. Structured finance vehicles, public-sector issuers, and sovereign issuers are the subject of separate default and transition studies, and we exclude them from this study.

To avoid overcounting, we exclude subsidiaries with debt that is fully guaranteed by a parent or with default risk that is considered identical to that of their parents. The latter are companies with obligations that are not legally guaranteed by a parent but that have operating or financing activities that 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 subsidiary might have come to an end or might not have begun. We included such subsidiaries for the period during which they had distinct and separate risk of default.

### **Issuers with withdrawn ratings**

S&P Global Ratings withdraws ratings when an entity's entire debt is paid off or when the program or programs rated are terminated and the relevant debt extinguished. For the purposes of this study, a corporate rating may be withdrawn 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, or at the entity's request.

### **Definition of default**

An obligor rated 'SD' (selective default) or 'D' is in payment default on one or more of its financial obligations (rated or unrated) unless S&P Global Ratings believes that such payments will be made within five business days in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar dates. S&P Global Ratings also lowers a rating to 'D' upon an issuer's filing for bankruptcy or taking a similar action that jeopardizes payments on a financial obligation. A 'D' rating is assigned when S&P Global Ratings believes that the default will be a general default

and that the obligor will fail to pay all or substantially all of its obligations as they come due. S&P Global Ratings assigns an 'SD' rating when it believes that the obligor has selectively defaulted on a specific issue or class of obligations but will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. A selective default includes the completion of a distressed exchange offer, whereby one or more financial obligation is either repurchased for an amount of cash or replaced by other instruments having a total value that is less than par. 'R' indicates that an obligor is under regulatory supervision owing to its financial condition. This does not necessarily indicate a default event, but during the period of regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. Preferred stock is not considered a financial obligation; thus, a missed preferred stock dividend is not normally equated with default.

We deem 'D', 'SD', and 'R' issuer ratings as defaults for the purposes of this study. A default is assumed to take place on the earliest of: the date S&P Global Ratings revised the rating(s) 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 for, or was forced into, bankruptcy.

When an issuer defaults, it is not uncommon for S&P Global Ratings to subsequently withdraw the 'D' rating. For the purposes of this study, if an issuer defaults, we end its rating history at 'D'. If any defaulting entity reemerges from bankruptcy--or otherwise restructures its defaulted debt instruments, thereby reestablishing regular, timely payment of all its debts--we reenter this issuer into the database as a new entity. Its rating history after the default event is included in all calculations as entirely separate from its experience leading up to its earlier default.

Many practitioners use statistics from this default study to estimate "probability of default" and "probability of rating transition." It is important to note that S&P Global Ratings' ratings do not imply a specific probability of default.

### **Regional definitions**

Within this study, tables and charts are often presented using specific geographic regions. Some countries can be included in multiple regions, and S&P Global Ratings does not have corporate ratings within every country. The regions covered in this study are:

U.S. and tax havens: U.S., Bermuda, and the Cayman Islands

Other developed: Australia, Canada, Japan, and New Zealand

Europe: Austria, Belgium, British Virgin Islands, Bulgaria, Channel Islands, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Gibraltar, Greece, Guernsey, Hungary, Iceland, Ireland, Isle of Man, Italy, Jersey, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the U.K. Prior studies did not include the British Virgin Islands, Croatia, Gibraltar, Guernsey, Isle of Man, Jersey, Liechtenstein, Monaco, and Montenegro within the European region.

Emerging markets: Argentina, Armenia, Aruba, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belize, Bolivia, Bosnia-Herzegovina, Brazil, Brunei Darussalam, Cambodia, Chile, China, Columbia, Costa Rica, Curacao, Dominican Republic, Egypt, El Salvador, Fiji, Gabon, Georgia, Ghana, Grenada, Guatemala, Honduras, Hong Kong, India, Indonesia, Israel, Jamaica, Jordan, Kazakhstan, Korea (Republic of), Kuwait, Lebanon, Liberia, Macao, Malaysia,

Marshall Islands, Mauritius, Mexico, Mongolia, Morocco, Netherlands Antilles, Nigeria, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Qatar, Russian Federation, Saudi Arabia, Singapore, South Africa, Sri Lanka, Syrian Arab Republic, Taiwan, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Turks and Caicos Islands, Ukraine, United Arab Emirates, Uruguay, Uzbekistan, Venezuela, and Vietnam

### **Static pool methodology**

S&P Global Fixed Income Research conducts its default studies on the basis of groupings called static pools. For the purposes of this study, we form static pools by grouping issuers by rating category at the beginning of each year, quarter, or month that the database covers. 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, we assign that default back to all of the static pools to which the issuer belonged.

S&P Global Fixed Income Research uses the static pool methodology to avoid certain pitfalls in estimating default rates. This is to ensure that default rates account for rating migration and to allow for default rates to be 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, which may yield comparatively low default rates during periods of high rating activity because 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.

Entities that have had ratings withdrawn—that is, revised to 'NR'—are surveilled with the aim of capturing a potential default. Because static pools only include entities with active ratings as of the beginning date of a given pool, we exclude companies with withdrawn ratings, as well as those that have defaulted, from subsequent static pools. If an entity has its rating withdrawn after the start date of a particular static pool and subsequently defaults, we will include it in that static pool as a default and categorize it into the rating category it was a member of at that time.

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 through the ratings on these entities as of 12:01 a.m. Jan. 1, 1982. We used the same method to form static pools for 1983 through 2015. From Jan. 1, 1981, to Dec. 31, 2015, a total of 16,875 first-time rated organizations were added to form new static pools, while we excluded 2,414 defaulting companies and 8,932 companies with last ratings of 'NR'.

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 in 1990 and a default in 1993. We would include this hypothetical company 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 (1987-1990) would record its 1993 default at the appropriate time horizon.

### **Default rate calculation**

We calculated annual default rates for each static pool, first in units and later as percentages with respect to the number of issuers in each rating category. We combined these percentages to obtain cumulative default rates for the 35 years the study covers (see tables 24-26 and 30-32).

### **Issuer-weighted default rates**

All default rates that appear in this study are 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 performance of ratings.

### **Average cumulative default rate calculation**

The cumulative default rates in this study average the experience of all static pools by first calculating marginal default rates for each possible time horizon and for each static pool, weight averaging the marginal default rates conditional on survival (survivors being nondefaulters), and accumulating the average conditional marginal default rates (see tables 24-26 and 30-32). We calculated conditional default rates 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, in table 32, the weighted-average first-year default rate for all speculative-grade-rated companies for all 35 pools was 3.8%, meaning that an average of 96.2% survived one year. Similarly, the second- and third-year conditional marginal averages--shown in the summary statistics section at the bottom portion of the table--were 3.78% for the first 34 pools (96.22% of those companies that did not default in the first year survived the second year) and 3.42% for the first 33 pools (96.58% of those companies that did not default by the second year survived the third year), respectively. Multiplying 96.2% by 96.22% results in a 92.56% survival rate to the end of the second year, which is a two-year average cumulative default rate of 7.44%. Multiplying 92.56% by 96.58% results in an 89.39% survival rate to the end of the third year, which is a three-year average cumulative default rate of 10.61%.

### **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, we compared the rating on each entity at the end of a particular year 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 seven consecutive one-year transition matrices from 1985 to 1991. If the rating on the issuer was withdrawn in the middle of 1991, it would be included in the column representing transitions to 'NR' in the 1991 transition matrix. Similarly, if it defaulted in the middle of 1991, it would be included in the column representing transitions to 'D' in the 1991 one-year transition matrix.



All 1981 static pool members still rated on Jan. 1, 2015, had 35 one-year transitions, while companies first rated on Jan. 1, 2015, had only one. Table 29 displays the summary of one-year transitions in 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 NR (see table 22).

The only ratings considered in these calculations are those on entities at the beginning of each static pool and those at the end. All rating changes that occur in between are ignored. For example, if an entity was rated 'A' on Jan. 1, 2015, and was downgraded to 'BBB' in the middle of the year and then later upgraded to 'A' later in the year (with no other subsequent rating changes), this entity would only be included in the percentage of issuers that began the year as 'A' that ended the year as 'A'. This also applies to transition matrices that span longer time horizons. If an issuer defaults or has its rating withdrawn in the middle of the year, then either a 'D' or 'NR' would be considered its rating as of Dec. 31 of that particular year.

**Table 29**

Summary Of One-Year Global Corporate Rating Transitions										
Year	--Investment-grade rating distribution at year-end--					--Speculative-grade rating distribution at year-end--				
	Jan. 1 inv. grade	Inv. grade (%)	Spec. grade (%)*	Defaulted (%)§	Rating withdrawn (%)	Jan. 1 spec. grade	Inv. grade (%)†	Spec. grade (%)	Defaulted (%)	Rating withdrawn (%)
1981	1,062	97.36	1.41	0.00	1.22	321	4.67	90.03	0.62	4.67
1982	1,091	93.58	3.02	0.18	3.21	340	2.65	80.59	4.41	12.35
1983	1,112	94.15	2.07	0.09	3.69	340	3.24	83.53	2.94	10.29
1984	1,172	95.31	2.30	0.17	2.22	367	4.90	86.92	3.27	4.90
1985	1,209	93.05	3.56	0.00	3.39	417	3.84	85.85	4.32	6.00
1986	1,333	90.10	3.83	0.15	5.93	529	3.02	82.23	5.67	9.07
1987	1,335	90.34	3.00	0.00	6.67	680	3.53	79.41	2.79	14.26
1988	1,349	91.85	2.74	0.00	5.41	754	3.58	79.44	3.85	13.13
1989	1,392	93.10	2.66	0.22	4.02	749	5.21	74.77	4.67	15.35
1990	1,435	94.63	2.09	0.14	3.14	690	3.19	75.07	8.12	13.62
1991	1,472	96.26	1.83	0.14	1.77	588	2.89	78.06	11.05	7.99
1992	1,618	96.42	1.24	0.00	2.35	525	6.29	78.67	6.10	8.95
1993	1,766	92.58	1.53	0.00	5.89	560	4.64	76.79	2.50	16.07
1994	1,847	95.83	0.76	0.05	3.36	711	4.08	85.94	2.11	7.88
1995	2,046	95.50	1.12	0.05	3.32	822	3.77	84.91	3.53	7.79
1996	2,243	94.47	0.62	0.00	4.90	885	4.75	81.02	1.81	12.43
1997	2,493	93.26	1.16	0.08	5.50	997	4.31	80.94	2.01	12.74
1998	2,768	90.39	2.17	0.14	7.30	1,310	2.98	83.89	3.66	9.47
1999	2,875	90.57	1.63	0.17	7.62	1,654	1.63	81.26	5.56	11.55
2000	2,928	91.53	1.78	0.24	6.45	1,752	2.17	83.33	6.22	8.28
2001	3,002	90.57	2.66	0.23	6.53	1,754	1.54	79.25	9.86	9.35
2002	3,107	89.38	3.99	0.42	6.21	1,677	1.79	79.61	9.48	9.12

**Table 29**

Summary Of One-Year Global Corporate Rating Transitions (cont.)										
Year	--Investment-grade rating distribution at year-end--					--Speculative-grade rating distribution at year-end--				
	Jan. 1 inv. grade	Inv. grade (%)	Spec. grade (%)*	Defaulted (%)§	Rating withdrawn (%)	Jan. 1 spec. grade	Inv. grade (%)†	Spec. grade (%)	Defaulted (%)	Rating withdrawn (%)
2003	3,020	92.42	2.52	0.10	4.97	1,762	1.53	82.01	5.05	11.41
2004	3,135	94.07	1.02	0.03	4.88	1,882	2.18	84.59	2.02	11.21
2005	3,242	92.81	1.60	0.03	5.55	2,065	3.05	82.28	1.50	13.17
2006	3,264	93.75	1.47	0.00	4.78	2,197	2.18	81.93	1.18	14.70
2007	3,338	90.11	1.74	0.00	8.15	2,308	3.03	81.85	0.91	14.21
2008	3,315	92.19	1.93	0.42	5.46	2,414	2.15	83.35	3.69	10.81
2009	3,348	89.31	3.41	0.33	6.96	2,268	1.28	77.12	9.88	11.73
2010	3,173	94.71	0.95	0.00	4.35	2,137	2.39	84.84	2.99	9.78
2011	3,226	93.27	1.77	0.03	4.93	2,403	2.41	83.98	1.83	11.78
2012	3,237	93.70	1.76	0.00	4.54	2,568	1.91	85.63	2.57	9.89
2013	3,245	94.95	1.36	0.00	3.70	2,796	2.11	85.34	2.29	10.26
2014	3,338	95.66	1.23	0.00	3.12	3,150	1.40	85.75	1.43	11.43
2015	3,485	92.74	2.53	0.00	4.73	3,421	1.40	83.81	2.75	12.04
Weighted average	83,021	92.89	1.94	0.10	5.06	49,793	2.45	82.56	3.80	11.19
Median		93.26	1.78	0.05	4.88		2.98	82.23	3.27	11.21
Standard deviation		2.15	0.87	0.12	1.70		1.26	3.46	2.75	2.78
Minimum		89.31	0.62	0.00	1.22		1.28	74.77	0.62	4.67
Maximum		97.36	3.99	0.42	8.15		6.29	90.03	11.05	16.07

\*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®.

## Multiyear transitions

Multiyear transitions were also calculated for periods of two up to 20 years. In this case, we compared the rating at the beginning of the multiyear period with the rating at the end. For example, three-year transition matrices were the result of comparing ratings at the beginning of the years 1981-2013 with the ratings at the end of the years 1983-2015. Otherwise, the methodology was identical to that used for single-year transitions.

We calculated average transition matrices on the basis of the multiyear matrices just described. These average matrices are a true summary, the ratios of which 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 tables 33-40). Transition matrices that present averages over multiple time horizons are also calculated as issuer-weighted averages.

## Rating modifiers

We use rating modifiers (plus and minus signs) to calculate the upgrade and downgrade percentages, as well as the magnitude of rating changes throughout this study. However, some transition tables may use full rating categories for practical reasons. In other words, the use of a rating category suggests that transitions from, for example, 'AA' to 'AA-' or from 'BBB+' to 'BBB-' are not considered to be rating transitions because the rating remained within the rating

category.

### **Comparing transition rates with default rates**

Rating transition rates may be compared with the marginal and cumulative default rates described in the previous sections. For example, the one-year default rate column of table 24 is equivalent to column 'D' of the average one-year transition matrix in table 21, and the cumulative average in summary statistics of the Y1 column in table 32. However, the two-year default rate column in table 24 is not the same as column 'D' of the average two-year transition matrix in table 34. This difference results from the different methods of calculating default rates. The default rates in table 34 are calculated as not conditional on survival, while those in table 24 are average default rates conditional on survival. The two-year default rates in table 24 are calculated in the same way as those in the cumulative average section for the Y2 column in table 32, while those in the 'D' column of table 34 are equivalent to adding up all the defaults behind the Y2 column's annual default rates in table 32 divided by the sum of all the issuers in table 32 for the years 1981-2014.

The links between transition matrices and average cumulative default rates can be best illustrated through tables 30-32. The default rates in the columns of these tables, associated with each static pool year, are calculated in the same way as they would be for individual years' one-year transition matrices. Tables 30, 31, and 32 are broken out by the broadest rating classifications (all rated, investment grade, and speculative grade, respectively). These tables can also be constructed for each rating category. As an example, the Y2 column of table 32 shows the two-year default rates (not conditional on survival) for each static pool. These are calculated in the same way as the default column in table 20, though table 20 shows the one-year default rates for each rating category for 2015 exclusively. In the summary section at the bottom of tables 30-32, the first row shows the issuer-weighted averages of the marginal default rates. These marginal averages are then used to calculate the cumulative average default rates in the row directly beneath them, as explained in the average cumulative default rate section above. These default rates are the same that appear in table 24 and are average cumulative default rates conditional on survival.

### **Standard deviations**

Many of the tables and charts in this study display averages of default rates, transition rates, and Gini ratios. Often times these are issuer-weighted averages. Prior studies have shown that fluctuations within default rates and transitions can vary greatly depending on many circumstances specific to particular time frames, industries, and geographic regions. As a supplement to many of the averages and time series presented in this study, standard deviations are also shown to provide a gauge of the dispersion of data behind these averages.

For the transition matrices in tables 21-23 and 33-44, the standard deviation for each cell in a given matrix is a weighted standard deviation, calculated using the data from each of the underlying cohort years that contribute to the averages, weighted by that cohort year's issuer base for each rating level. For example, in the average one-year global transition matrix in table 33, each cell's weighted standard deviation is calculated from the series of that particular cell in each of the 35 cohorts beginning with the 1981 cohort and ending with the 2015 cohort. The squared difference between each cohort's transition rate and the weighted average—which is the data point in each cell—is multiplied by each cohort's weight. These weights are based on each cohort's rating level's contribution to the 35-year total issuer base for each rating level. We then divide this by the ratio of the total number of non-zero weights minus one and the total number of non-zero weights.

Regarding Gini ratios in tables 2, 27, and 28, their standard deviations are derived from the time series of Gini ratios for all of their constituent annual cohorts. As an example, the standard deviation applied to the seven-year weighted average global Gini ratio in table 2 (5.14) was calculated from the time series of all available seven-year Gini ratios by cohort. In this case, these are the seven-year Gini ratios beginning with the 1981 cohort through the 2009 seven-year cohort. We calculated standard deviations for Gini ratios in this study as the standard deviations of a sample, and not those of a population.

### Time sample

This update limits the reporting of default rates to the 15-year time horizon. However, the data were gathered for 35 years, and all calculations are based on the rating experience of that period. 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 has a bigger effect on averages.

**Table 30**

Static Pool Cumulative Global Corporate Default Rates Among All Ratings (1981-2015) (%)																
		--Time horizon (years)--														
Year	Issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1981	1,383	0.14	1.37	2.10	2.89	3.54	4.92	5.35	6.15	6.72	7.81	9.47	9.98	10.48	10.56	10.77
1982	1,431	1.19	1.89	2.73	3.42	4.82	5.17	5.94	6.43	7.55	9.36	9.85	10.41	10.48	10.69	10.69
1983	1,452	0.76	1.58	2.41	3.99	4.41	5.44	5.92	7.02	9.02	9.57	10.12	10.19	10.40	10.40	10.47
1984	1,539	0.91	1.95	3.77	4.22	5.26	5.98	7.15	8.84	9.42	10.01	10.07	10.27	10.27	10.40	10.40
1985	1,626	1.11	3.01	3.57	4.92	5.78	7.07	8.92	9.47	9.96	10.02	10.33	10.33	10.46	10.46	10.76
1986	1,862	1.72	2.31	3.60	4.46	5.85	7.73	8.38	8.92	9.08	9.34	9.45	9.67	9.77	10.04	10.42
1987	2,015	0.94	2.38	3.82	5.66	8.19	9.28	10.02	10.27	10.62	10.77	10.97	11.07	11.36	11.81	12.85
1988	2,103	1.38	3.00	5.14	8.18	9.27	10.03	10.27	10.75	10.89	11.17	11.36	11.70	12.36	13.31	14.27
1989	2,141	1.77	4.34	7.85	9.01	9.81	10.14	10.56	10.70	10.98	11.35	11.68	12.28	13.26	14.15	14.62
1990	2,125	2.73	6.12	7.53	8.33	8.66	9.13	9.22	9.60	10.07	10.45	11.20	12.19	13.18	13.69	13.84
1991	2,060	3.25	4.76	5.29	5.63	6.17	6.26	6.60	7.04	7.43	8.11	9.17	10.24	10.73	10.92	11.07
1992	2,143	1.49	2.01	2.33	2.94	3.08	3.41	3.83	4.15	4.85	5.88	6.95	7.37	7.56	7.70	7.84
1993	2,326	0.60	1.07	1.98	2.19	2.58	3.01	3.44	4.21	5.33	6.45	6.88	7.05	7.22	7.44	7.57
1994	2,558	0.63	1.76	2.15	2.62	3.09	3.95	4.96	6.29	7.47	7.97	8.21	8.37	8.64	8.76	9.34
1995	2,868	1.05	1.53	2.02	2.58	3.56	4.57	6.38	7.74	8.33	8.58	8.79	9.03	9.14	9.66	10.50
1996	3,128	0.51	1.09	1.82	2.97	4.00	5.69	7.19	7.86	8.15	8.38	8.60	8.73	9.27	10.10	10.26
1997	3,490	0.63	1.60	2.92	4.33	6.25	7.99	8.91	9.20	9.43	9.71	9.86	10.46	11.29	11.38	11.49
1998	4,078	1.28	3.24	5.22	7.87	10.08	11.30	11.80	12.11	12.43	12.58	13.22	14.15	14.25	14.37	14.49
1999	4,529	2.14	4.66	7.99	10.89	12.36	12.92	13.27	13.62	13.78	14.57	15.72	15.90	16.03	16.18	16.27
2000	4,680	2.48	6.07	9.23	10.92	11.62	12.07	12.44	12.65	13.53	14.91	15.09	15.26	15.41	15.56	15.62
2001	4,756	3.78	7.36	9.31	10.03	10.56	10.91	11.12	11.96	13.44	13.62	13.79	13.96	14.15	14.21	14.47
2002	4,784	3.60	5.62	6.42	6.88	7.23	7.44	8.38	9.97	10.18	10.35	10.54	10.79	10.85	11.10	
2003	4,782	1.92	2.72	3.22	3.62	3.83	4.81	6.63	6.90	7.07	7.34	7.63	7.72	7.99		
2004	5,017	0.78	1.32	1.71	1.95	2.99	4.98	5.32	5.54	5.84	6.12	6.20	6.48			
2005	5,307	0.60	1.02	1.36	2.56	4.86	5.35	5.65	5.99	6.29	6.43	6.78				
2006	5,461	0.48	0.88	2.33	5.04	5.66	6.08	6.57	6.94	7.09	7.47					
2007	5,646	0.37	2.04	5.30	6.16	6.62	7.23	7.65	7.83	8.29						

**Table 30**

Static Pool Cumulative Global Corporate Default Rates Among All Ratings (1981-2015) (%) (cont.)																
		--Time horizon (years)--														
Year	Issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2008	5,729	1.80	5.59	6.67	7.12	7.85	8.26	8.52	9.04							
2009	5,616	4.18	5.34	5.82	6.57	6.98	7.26	7.80								
2010	5,310	1.21	1.90	2.75	3.22	3.62	4.18									
2011	5,629	0.80	1.94	2.63	3.11	3.89										
2012	5,805	1.14	2.07	2.57	3.46											
2013	6,041	1.06	1.66	2.83												
2014	6,488	0.69	1.97													
2015	6,906	1.36														
<b>Summary statistics</b>																
Marginal average		1.49	1.47	1.31	1.11	0.94	0.81	0.70	0.60	0.55	0.51	0.44	0.37	0.34	0.31	0.32
Cumulative average		1.49	2.94	4.21	5.27	6.17	6.92	7.57	8.12	8.62	9.09	9.49	9.83	10.13	10.41	10.70
Standard deviation		1.02	1.78	2.31	2.63	2.75	2.65	2.51	2.47	2.46	2.47	2.48	2.48	2.41	2.40	2.47
Median		1.14	2.02	3.22	4.39	5.78	6.67	7.65	8.35	9.02	9.47	9.86	10.30	10.48	10.81	10.77
Minimum		0.14	0.88	1.36	1.95	2.58	3.01	3.44	4.15	4.85	5.88	6.20	6.48	7.22	7.44	7.57
Maximum		4.18	7.36	9.31	10.92	12.36	12.92	13.27	13.62	13.78	14.91	15.72	15.90	16.03	16.18	16.27

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

**Table 31**

Static Pool Cumulative Global Corporate Default Rates Among All Investment-Grade Ratings (1981-2015) (%)																
		--Time horizon (years)--														
Year	Issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1981	1,062	0.00	0.38	0.38	0.47	0.66	1.04	1.32	2.07	2.26	3.01	4.05	4.33	4.52	4.52	4.71
1982	1,091	0.18	0.27	0.37	0.55	1.01	1.28	2.02	2.20	3.02	4.12	4.40	4.67	4.67	4.86	4.86
1983	1,112	0.09	0.36	0.45	0.90	1.08	1.62	1.71	2.52	3.60	3.96	4.23	4.23	4.41	4.41	4.41
1984	1,172	0.17	0.26	0.60	0.77	1.19	1.37	2.05	2.99	3.33	3.58	3.58	3.75	3.75	3.84	3.84
1985	1,209	0.00	0.17	0.25	0.83	0.99	1.74	2.73	3.06	3.31	3.31	3.56	3.56	3.72	3.72	3.89
1986	1,333	0.15	0.15	0.53	0.68	1.20	2.10	2.48	2.63	2.63	2.85	2.85	3.00	3.08	3.23	3.53
1987	1,335	0.00	0.15	0.37	0.82	1.72	2.25	2.40	2.47	2.62	2.62	2.77	2.85	3.00	3.15	3.97
1988	1,349	0.00	0.22	0.37	0.96	1.48	1.63	1.70	1.85	1.85	2.00	2.00	2.15	2.30	2.97	3.71
1989	1,392	0.22	0.36	0.65	1.22	1.36	1.44	1.58	1.58	1.58	1.58	1.80	1.94	2.73	3.38	3.74
1990	1,435	0.14	0.35	0.77	0.98	1.05	1.18	1.18	1.18	1.25	1.53	1.88	2.58	3.14	3.48	3.55
1991	1,472	0.14	0.27	0.41	0.48	0.61	0.61	0.61	0.68	1.02	1.36	2.11	2.65	2.92	2.99	3.06
1992	1,618	0.00	0.06	0.12	0.25	0.25	0.25	0.31	0.56	0.80	1.36	1.85	2.10	2.16	2.29	2.47
1993	1,766	0.00	0.06	0.17	0.17	0.23	0.40	0.74	1.08	1.70	2.32	2.55	2.55	2.66	2.77	2.83
1994	1,847	0.05	0.16	0.16	0.27	0.38	0.81	1.08	1.68	2.27	2.54	2.60	2.65	2.82	2.87	3.25
1995	2,046	0.05	0.05	0.10	0.20	0.68	0.93	1.61	2.20	2.44	2.49	2.54	2.69	2.74	3.13	3.47
1996	2,243	0.00	0.04	0.09	0.49	0.80	1.47	2.01	2.23	2.32	2.36	2.50	2.50	2.90	3.34	3.39
1997	2,493	0.08	0.16	0.48	0.80	1.36	2.09	2.45	2.53	2.57	2.69	2.69	3.09	3.49	3.53	3.65

**Table 31**

Static Pool Cumulative Global Corporate Default Rates Among All Investment-Grade Ratings (1981-2015) (%) (cont.)																
Year	Issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998	2,768	0.14	0.43	0.79	1.37	2.38	2.82	3.00	3.11	3.18	3.18	3.65	4.19	4.26	4.41	4.55
1999	2,875	0.17	0.49	0.90	1.88	2.33	2.47	2.57	2.71	2.71	3.23	3.90	3.97	4.10	4.28	4.31
2000	2,928	0.24	0.58	1.54	2.02	2.12	2.25	2.39	2.39	2.97	3.65	3.72	3.89	4.03	4.06	4.13
2001	3,002	0.23	1.23	1.67	1.83	2.00	2.13	2.13	2.66	3.40	3.43	3.60	3.76	3.83	3.86	4.06
2002	3,107	0.42	0.77	0.90	1.03	1.09	1.09	1.64	2.29	2.32	2.45	2.61	2.70	2.74	2.93	
2003	3,020	0.10	0.20	0.30	0.33	0.33	0.86	1.59	1.62	1.72	1.79	1.89	1.92	2.15		
2004	3,135	0.03	0.10	0.13	0.13	0.64	1.28	1.34	1.44	1.53	1.63	1.63	1.85			
2005	3,242	0.03	0.06	0.06	0.62	1.20	1.30	1.39	1.48	1.57	1.57	1.79				
2006	3,264	0.00	0.00	0.49	0.92	1.01	1.10	1.16	1.26	1.26	1.44					
2007	3,338	0.00	0.48	0.93	1.11	1.20	1.29	1.35	1.35	1.50						
2008	3,315	0.42	0.81	0.97	1.09	1.18	1.24	1.24	1.39							
2009	3,348	0.33	0.45	0.54	0.60	0.63	0.63	0.78								
2010	3,173	0.00	0.03	0.06	0.09	0.09	0.25									
2011	3,226	0.03	0.06	0.06	0.06	0.09										
2012	3,237	0.00	0.00	0.00	0.03											
2013	3,245	0.00	0.00	0.00												
2014	3,338	0.00	0.00													
2015	3,485	0.00														
<b>Summary statistics</b>																
Marginal average		0.10	0.17	0.20	0.25	0.26	0.26	0.25	0.23	0.23	0.23	0.23	0.20	0.19	0.18	0.20
Cumulative average		0.10	0.28	0.48	0.73	0.98	1.24	1.49	1.72	1.94	2.17	2.40	2.59	2.77	2.95	3.14
Standard deviation		0.12	0.27	0.41	0.53	0.62	0.66	0.67	0.71	0.79	0.85	0.87	0.86	0.77	0.67	0.61
Median		0.05	0.18	0.38	0.72	1.05	1.29	1.61	2.14	2.32	2.52	2.61	2.78	3.08	3.43	3.74
Minimum		0.00	0.00	0.00	0.03	0.09	0.25	0.31	0.56	0.80	1.36	1.63	1.85	2.15	2.29	2.47
Maximum		0.42	1.23	1.67	2.02	2.38	2.82	3.00	3.11	3.60	4.12	4.40	4.67	4.67	4.86	4.86

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

**Table 32**

Static Pool Cumulative Global Corporate Default Rates Among All Speculative-Grade Ratings (1981-2015) (%)																
Year	Issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1981	321	0.62	4.67	7.79	10.90	13.08	17.76	18.69	19.63	21.50	23.68	27.41	28.66	30.22	30.53	30.84
1982	340	4.41	7.06	10.29	12.65	17.06	17.65	18.53	20.00	22.06	26.18	27.35	28.82	29.12	29.41	29.41
1983	340	2.94	5.59	8.82	14.12	15.29	17.94	19.71	21.76	26.76	27.94	29.41	29.71	30.00	30.00	30.29
1984	367	3.27	7.36	13.90	15.26	18.26	20.71	23.43	27.52	28.88	30.52	30.79	31.06	31.06	31.34	31.34
1985	417	4.32	11.27	13.19	16.79	19.66	22.54	26.86	28.06	29.26	29.50	29.98	29.98	29.98	29.98	30.70

**Table 32**

Static Pool Cumulative Global Corporate Default Rates Among All Speculative-Grade Ratings (1981-2015) (%) (cont.)																
Year	Issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1986	529	5.67	7.75	11.34	13.99	17.58	21.93	23.25	24.76	25.33	25.71	26.09	26.47	26.65	27.22	27.79
1987	680	2.79	6.76	10.59	15.15	20.88	23.09	25.00	25.59	26.32	26.76	27.06	27.21	27.79	28.82	30.29
1988	754	3.85	7.96	13.66	21.09	23.21	25.07	25.60	26.66	27.06	27.59	28.12	28.78	30.37	31.83	33.16
1989	749	4.67	11.75	21.23	23.50	25.50	26.30	27.24	27.64	28.44	29.51	30.04	31.51	32.84	34.18	34.85
1990	690	8.12	18.12	21.59	23.62	24.49	25.65	25.94	27.10	28.41	28.99	30.58	32.17	34.06	34.93	35.22
1991	588	11.05	15.99	17.52	18.54	20.07	20.41	21.60	22.96	23.47	25.00	26.87	29.25	30.27	30.78	31.12
1992	525	6.10	8.00	9.14	11.24	11.81	13.14	14.67	15.24	17.33	19.81	22.67	23.62	24.19	24.38	24.38
1993	560	2.50	4.29	7.68	8.57	10.00	11.25	11.96	14.11	16.79	19.46	20.54	21.25	21.61	22.14	22.50
1994	711	2.11	5.91	7.31	8.72	10.13	12.10	15.05	18.28	20.96	22.08	22.78	23.21	23.77	24.05	25.18
1995	822	3.53	5.23	6.81	8.52	10.71	13.63	18.25	21.53	22.99	23.72	24.33	24.82	25.06	25.91	27.98
1996	885	1.81	3.73	6.21	9.27	12.09	16.38	20.34	22.15	22.94	23.62	24.07	24.52	25.42	27.23	27.68
1997	997	2.01	5.22	9.03	13.14	18.46	22.77	25.08	25.88	26.58	27.28	27.78	28.89	30.79	30.99	31.09
1998	1,310	3.66	9.16	14.58	21.60	26.34	29.24	30.38	31.15	31.98	32.44	33.44	35.19	35.34	35.42	35.50
1999	1,654	5.56	11.91	20.31	26.54	29.81	31.08	31.86	32.59	33.01	34.28	36.28	36.64	36.76	36.88	37.06
2000	1,752	6.22	15.24	22.09	25.80	27.51	28.48	29.22	29.79	31.16	33.73	34.08	34.25	34.42	34.76	34.82
2001	1,754	9.86	17.84	22.41	24.06	25.20	25.94	26.51	27.88	30.62	31.07	31.24	31.41	31.81	31.93	32.27
2002	1,677	9.48	14.61	16.64	17.71	18.60	19.20	20.87	24.21	24.75	24.99	25.22	25.76	25.88	26.24	
2003	1,762	5.05	7.04	8.23	9.25	9.82	11.58	15.27	15.95	16.23	16.86	17.48	17.65	17.99		
2004	1,882	2.02	3.35	4.36	4.99	6.91	11.16	11.96	12.38	13.02	13.60	13.82	14.19			
2005	2,065	1.50	2.52	3.39	5.62	10.61	11.72	12.35	13.08	13.70	14.04	14.62				
2006	2,197	1.18	2.18	5.05	11.15	12.56	13.47	14.61	15.38	15.75	16.43					
2007	2,308	0.91	4.29	11.61	13.47	14.47	15.81	16.77	17.20	18.11						
2008	2,414	3.69	12.14	14.50	15.41	17.03	17.90	18.52	19.55							
2009	2,268	9.88	12.57	13.62	15.39	16.36	17.06	18.17								
2010	2,137	2.99	4.68	6.74	7.86	8.84	10.01									
2011	2,403	1.83	4.45	6.08	7.20	8.99										
2012	2,568	2.57	4.67	5.80	7.79											
2013	2,796	2.29	3.58	6.12												
2014	3,150	1.43	4.06													
2015	3,421	2.75														
<b>Summary statistics</b>																
Marginal average		3.80	3.78	3.42	2.86	2.40	2.01	1.73	1.47	1.33	1.21	1.02	0.87	0.78	0.71	0.69
Cumulative average		3.80	7.44	10.60	13.15	15.24	16.94	18.38	19.58	20.65	21.61	22.41	23.08	23.69	24.23	24.75
Standard deviation		2.75	4.54	5.60	6.14	6.30	6.04	5.69	5.73	5.78	5.75	5.62	5.28	4.59	3.95	3.82
Median		3.27	6.90	10.29	13.73	17.03	17.92	20.34	22.55	24.75	25.94	27.35	28.80	30.00	30.26	30.84
Minimum		0.62	2.18	3.39	4.99	6.91	10.01	11.96	12.38	13.02	13.60	13.82	14.19	17.99	22.14	22.50

**Table 32**

**Static Pool Cumulative Global Corporate Default Rates Among All Speculative-Grade Ratings (1981-2015) (%) (cont.)**

Year	Issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Maximum		11.05	18.12	22.41	26.54	29.81	31.08	31.86	32.59	33.01	34.28	36.28	36.64	36.76	36.88	37.06

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

**Table 33**

**Average Multiyear Global Corporate Transition Matrix (1981-2015) (%)**

From/to	--One-year transition rates--								
	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	87.08 (7.14)	9.00 (7.16)	0.53 (0.83)	0.05 (0.25)	0.08 (0.25)	0.03 (0.17)	0.05 (0.35)	0.00 (0.00)	3.18 (2.44)
AA	0.53 (0.52)	86.69 (5.32)	8.06 (4.28)	0.53 (0.69)	0.06 (0.20)	0.07 (0.21)	0.02 (0.07)	0.02 (0.08)	4.02 (1.94)
A	0.03 (0.09)	1.81 (1.02)	87.65 (3.55)	5.39 (2.14)	0.33 (0.39)	0.13 (0.27)	0.02 (0.07)	0.06 (0.11)	4.58 (1.81)
BBB	0.01 (0.04)	0.11 (0.16)	3.55 (1.68)	85.43 (3.80)	3.82 (1.56)	0.52 (0.72)	0.12 (0.23)	0.19 (0.26)	6.24 (1.63)
BB	0.01 (0.06)	0.03 (0.09)	0.13 (0.27)	5.08 (1.89)	76.78 (4.47)	6.96 (3.21)	0.64 (0.77)	0.73 (0.87)	9.63 (2.46)
B	0.00 (0.00)	0.03 (0.09)	0.09 (0.22)	0.21 (0.22)	5.25 (2.07)	74.27 (4.37)	4.39 (2.25)	3.77 (3.37)	11.99 (2.25)
CCC/C	0.00 (0.00)	0.00 (0.00)	0.14 (0.46)	0.20 (0.71)	0.61 (0.99)	12.84 (8.25)	44.19 (9.32)	26.36 (11.76)	15.66 (5.49)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 34**

**Average Multiyear Global Corporate Transition Matrix (1981-2015) (%)**

From/to	--Two-year transition rates--								
	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	75.72 (10.08)	16.05 (10.50)	1.45 (1.47)	0.11 (0.31)	0.19 (0.39)	0.05 (0.23)	0.11 (0.41)	0.03 (0.17)	6.30 (4.34)
AA	0.93 (0.67)	75.15 (8.13)	14.31 (6.07)	1.34 (1.08)	0.20 (0.34)	0.15 (0.30)	0.02 (0.07)	0.06 (0.12)	7.84 (3.07)
A	0.04 (0.08)	3.25 (1.64)	77.03 (5.39)	9.25 (2.84)	0.84 (0.78)	0.30 (0.45)	0.05 (0.11)	0.16 (0.20)	9.09 (2.84)
BBB	0.02 (0.08)	0.20 (0.25)	6.47 (2.64)	73.56 (5.93)	5.93 (1.96)	1.17 (1.15)	0.23 (0.33)	0.55 (0.66)	11.87 (2.62)
BB	0.01 (0.06)	0.05 (0.11)	0.33 (0.53)	8.94 (2.83)	59.10 (6.21)	10.33 (2.77)	1.12 (0.95)	2.28 (2.31)	17.83 (3.51)
B	0.00 (0.00)	0.04 (0.12)	0.17 (0.32)	0.49 (0.45)	8.90 (3.11)	55.06 (5.54)	5.02 (2.08)	8.67 (6.19)	21.65 (3.77)



Table 34

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%) (cont.)									
--Two-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
CCC/C	0.00	0.00	0.18	0.58	1.12	16.55	22.01	35.58	23.99
	(0.00)	(0.00)	(0.52)	(1.28)	(1.23)	(8.04)	(7.93)	(13.29)	(7.89)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Table 35

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%)									
--Three-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	65.52	21.93	2.37	0.32	0.19	0.08	0.11	0.13	9.35
	(11.57)	(12.19)	(1.72)	(0.76)	(0.45)	(0.30)	(0.42)	(0.37)	(5.36)
AA	1.24	65.31	18.94	2.17	0.37	0.23	0.03	0.13	11.58
	(0.81)	(9.06)	(6.16)	(1.35)	(0.51)	(0.46)	(0.08)	(0.19)	(4.13)
A	0.06	4.23	68.15	11.89	1.38	0.48	0.10	0.27	13.43
	(0.10)	(2.07)	(6.14)	(2.78)	(0.99)	(0.63)	(0.14)	(0.28)	(3.58)
BBB	0.02	0.31	8.57	64.00	7.05	1.75	0.31	0.95	17.04
	(0.07)	(0.41)	(3.15)	(7.00)	(2.08)	(1.35)	(0.39)	(0.97)	(3.34)
BB	0.01	0.06	0.56	11.42	46.05	11.67	1.30	4.21	24.72
	(0.06)	(0.14)	(0.72)	(3.33)	(6.83)	(2.73)	(0.96)	(3.58)	(4.30)
B	0.00	0.03	0.24	0.88	10.75	41.08	4.56	13.13	29.32
	(0.06)	(0.12)	(0.45)	(0.79)	(3.20)	(5.91)	(1.76)	(7.83)	(4.84)
CCC/C	0.00	0.00	0.15	0.65	1.69	16.67	10.74	41.42	28.68
	(0.00)	(0.00)	(0.55)	(1.30)	(1.81)	(7.13)	(6.32)	(12.94)	(8.87)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Table 36

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%)									
--Five-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	49.52	28.22	4.88	0.82	0.25	0.16	0.08	0.35	15.71
	(11.96)	(13.15)	(2.64)	(1.54)	(0.47)	(0.41)	(0.28)	(0.60)	(6.55)
AA	1.53	49.71	25.09	3.81	0.61	0.40	0.05	0.35	18.44
	(0.90)	(7.45)	(4.70)	(1.57)	(0.63)	(0.60)	(0.10)	(0.38)	(4.60)
A	0.08	5.30	54.54	15.13	2.23	0.75	0.16	0.59	21.21
	(0.10)	(2.34)	(6.54)	(2.26)	(1.06)	(0.88)	(0.18)	(0.42)	(4.08)
BBB	0.03	0.49	10.45	50.53	7.64	2.38	0.42	2.03	26.03
	(0.08)	(0.55)	(3.35)	(7.39)	(1.79)	(1.46)	(0.40)	(1.44)	(4.21)
BB	0.01	0.08	1.09	12.83	30.07	11.12	1.34	8.07	35.37
	(0.06)	(0.19)	(1.01)	(3.36)	(6.21)	(2.24)	(0.93)	(4.87)	(4.50)
B	0.02	0.03	0.30	1.67	10.66	24.39	2.92	19.88	40.14

**Table 36**

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%) (cont.)									
--Five-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.11)	(0.10)	(0.59)	(1.25)	(2.83)	(5.45)	(1.02)	(8.87)	(5.62)
CCC/C	0.00	0.00	0.13	0.74	2.96	12.28	2.61	46.99	34.28
	(0.00)	(0.00)	(0.52)	(1.91)	(2.15)	(4.77)	(3.89)	(12.74)	(9.48)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 37**

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%)									
--Seven-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	38.69	30.81	7.04	1.52	0.28	0.20	0.11	0.54	20.81
	(10.43)	(11.65)	(2.86)	(1.90)	(0.51)	(0.43)	(0.31)	(0.75)	(6.58)
AA	1.57	38.98	28.16	4.97	0.81	0.41	0.03	0.58	24.49
	(0.91)	(4.92)	(3.80)	(1.55)	(0.60)	(0.51)	(0.09)	(0.53)	(4.47)
A	0.08	5.49	45.09	16.77	2.75	0.89	0.16	1.02	27.74
	(0.12)	(1.89)	(5.83)	(1.50)	(1.12)	(0.95)	(0.18)	(0.47)	(3.78)
BBB	0.04	0.63	10.76	41.49	7.45	2.56	0.41	3.15	33.52
	(0.12)	(0.61)	(2.94)	(6.35)	(0.89)	(1.13)	(0.34)	(1.60)	(3.72)
BB	0.00	0.09	1.46	12.45	21.35	9.76	1.03	11.56	42.30
	(0.00)	(0.19)	(1.11)	(3.36)	(5.37)	(2.29)	(0.69)	(5.05)	(3.80)
B	0.01	0.02	0.41	2.10	8.70	15.28	1.76	24.95	46.78
	(0.08)	(0.09)	(0.62)	(1.57)	(1.79)	(4.18)	(0.63)	(7.75)	(5.30)
CCC/C	0.00	0.00	0.26	0.98	3.14	8.14	1.34	50.31	35.84
	(0.00)	(0.00)	(0.64)	(2.29)	(1.75)	(4.26)	(2.15)	(12.47)	(9.79)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 38**

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%)									
--10-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	26.40	31.46	9.96	2.91	0.15	0.21	0.03	0.73	28.16
	(7.99)	(10.78)	(2.53)	(2.25)	(0.30)	(0.49)	(0.14)	(0.78)	(6.67)
AA	1.36	28.13	29.34	6.87	1.07	0.45	0.03	0.81	31.94
	(0.70)	(3.99)	(3.80)	(1.65)	(0.68)	(0.36)	(0.08)	(0.58)	(3.83)
A	0.12	5.42	34.91	17.64	3.06	1.03	0.15	1.66	36.01
	(0.17)	(1.57)	(4.31)	(2.17)	(0.54)	(0.68)	(0.18)	(0.73)	(4.15)
BBB	0.02	0.79	10.69	31.93	6.82	2.54	0.35	4.74	42.12
	(0.10)	(0.67)	(3.24)	(5.07)	(1.25)	(1.03)	(0.22)	(1.95)	(3.11)
BB	0.02	0.07	1.85	11.23	13.97	7.76	0.64	15.80	48.67
	(0.08)	(0.15)	(1.13)	(3.13)	(3.75)	(2.43)	(0.42)	(5.64)	(3.20)

**Table 38**

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%) (cont.)									
--10-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
B	0.00	0.04	0.49	2.69	6.87	8.41	0.84	29.16	51.50
	(0.00)	(0.08)	(0.64)	(1.85)	(1.85)	(3.00)	(0.57)	(8.82)	(5.21)
CCC/C	0.00	0.00	0.19	0.90	3.61	4.38	0.39	50.77	39.76
	(0.00)	(0.00)	(0.63)	(0.98)	(2.51)	(3.20)	(0.70)	(11.98)	(10.32)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 39**

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%)									
--15-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	13.68	28.99	14.99	2.94	0.60	0.46	0.00	0.92	37.42
	(6.33)	(8.14)	(2.84)	(0.92)	(0.42)	(0.60)	(0.00)	(0.87)	(3.89)
AA	0.97	16.29	27.17	9.28	1.37	0.70	0.03	1.17	43.02
	(0.79)	(2.85)	(3.69)	(2.11)	(0.68)	(0.45)	(0.10)	(0.57)	(2.62)
A	0.13	4.03	24.12	17.21	3.25	1.23	0.15	2.80	47.08
	(0.21)	(1.56)	(2.39)	(1.61)	(0.86)	(0.49)	(0.15)	(0.69)	(3.62)
BBB	0.00	0.82	8.22	22.65	5.47	2.55	0.25	7.88	52.15
	(0.00)	(0.53)	(2.56)	(1.95)	(0.76)	(0.94)	(0.20)	(0.76)	(2.41)
BB	0.00	0.14	2.03	8.23	7.79	5.18	0.43	22.44	53.75
	(0.00)	(0.22)	(1.24)	(2.23)	(2.19)	(2.05)	(0.43)	(3.48)	(3.39)
B	0.00	0.06	0.54	2.47	3.59	3.65	0.45	37.53	51.71
	(0.00)	(0.10)	(0.53)	(1.57)	(0.84)	(1.19)	(0.41)	(5.22)	(4.84)
CCC/C	0.00	0.00	0.59	1.17	2.81	1.17	0.23	58.78	35.25
	(0.00)	(0.00)	(1.76)	(1.34)	(3.02)	(1.12)	(0.93)	(8.76)	(9.02)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 40**

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%)									
--20-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	5.99	24.24	19.25	3.42	0.95	1.00	0.00	1.43	43.73
	(3.60)	(6.42)	(4.08)	(1.51)	(0.45)	(0.62)	(0.00)	(1.00)	(5.52)
AA	0.70	9.11	22.34	11.94	1.65	0.94	0.07	1.85	51.38
	(0.76)	(1.81)	(3.66)	(1.87)	(0.34)	(0.44)	(0.16)	(1.01)	(2.02)
A	0.13	2.88	17.93	15.40	3.23	1.57	0.19	4.04	54.65
	(0.22)	(0.92)	(2.15)	(1.11)	(0.72)	(0.70)	(0.18)	(1.38)	(1.91)
BBB	0.00	0.78	6.94	18.56	3.97	1.96	0.18	9.91	57.69
	(0.00)	(0.32)	(1.18)	(1.94)	(0.95)	(0.83)	(0.24)	(1.59)	(2.04)
BB	0.00	0.07	1.62	7.02	4.06	3.69	0.38	24.38	58.77

**Table 40**

Average Multiyear Global Corporate Transition Matrix (1981-2015) (%) (cont.)									
--20-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.00)	(0.18)	(0.64)	(1.64)	(1.43)	(1.10)	(0.41)	(4.33)	(3.06)
B	0.00	0.00	0.47	2.81	2.81	2.03	0.29	35.98	55.61
	(0.00)	(0.00)	(0.27)	(0.95)	(0.60)	(1.00)	(0.29)	(4.07)	(4.33)
CCC/C	0.00	0.00	0.38	0.75	2.25	0.56	0.00	55.91	40.15
	(0.00)	(0.00)	(1.01)	(0.93)	(3.45)	(0.87)	(0.00)	(8.42)	(10.01)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 41**

Average Multiyear Global Corporate Transition Matrices (1981-2015) – All Financials (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
<b>One-year</b>									
AAA	87.05	9.58	0.34	0.09	0.09	0.04	0.09	0.00	2.74
	(10.09)	(9.85)	(0.99)	(0.37)	(0.38)	(0.24)	(0.48)	(0.00)	(2.44)
AA	0.52	86.58	8.37	0.38	0.02	0.02	0.04	0.04	4.02
	(0.57)	(6.48)	(5.77)	(0.67)	(0.08)	(0.08)	(0.17)	(0.12)	(2.03)
A	0.02	2.43	87.93	4.14	0.23	0.08	0.01	0.10	5.05
	(0.13)	(1.74)	(3.97)	(2.62)	(0.50)	(0.16)	(0.05)	(0.20)	(2.22)
BBB	0.00	0.26	4.82	82.74	3.66	0.49	0.15	0.30	7.59
	(0.00)	(0.58)	(3.22)	(4.13)	(2.54)	(0.88)	(0.29)	(0.58)	(2.01)
BB	0.00	0.11	0.20	6.80	75.19	4.99	0.89	0.86	10.95
	(0.00)	(0.31)	(0.79)	(4.34)	(7.60)	(3.27)	(1.83)	(1.36)	(5.46)
B	0.00	0.04	0.12	0.53	7.23	74.54	3.45	2.96	11.13
	(0.00)	(0.24)	(0.73)	(0.94)	(4.88)	(8.45)	(3.88)	(4.03)	(4.74)
CCC/C	0.00	0.00	0.00	0.00	1.50	14.71	47.38	16.21	20.20
	(0.00)	(0.00)	(0.00)	(0.00)	(4.32)	(11.12)	(18.60)	(16.60)	(12.67)
<b>Three-year</b>									
AAA	64.95	24.10	1.63	0.34	0.21	0.09	0.17	0.21	8.29
	(16.42)	(16.65)	(2.24)	(1.14)	(0.58)	(0.35)	(0.60)	(0.55)	(5.88)
AA	1.23	64.95	19.59	1.86	0.20	0.17	0.04	0.21	11.75
	(1.02)	(10.40)	(8.22)	(1.60)	(0.35)	(0.37)	(0.10)	(0.30)	(4.39)
A	0.05	5.84	68.96	8.22	1.19	0.27	0.12	0.46	14.89
	(0.16)	(3.37)	(7.03)	(2.68)	(1.32)	(0.49)	(0.22)	(0.54)	(5.16)
BBB	0.00	0.71	11.83	58.84	5.08	1.13	0.41	1.43	20.59
	(0.00)	(1.28)	(6.56)	(6.19)	(2.80)	(1.13)	(0.72)	(1.46)	(4.27)
BB	0.00	0.17	0.90	15.38	43.18	7.20	1.11	3.72	28.34
	(0.00)	(0.44)	(1.77)	(6.04)	(10.00)	(4.49)	(1.73)	(4.09)	(8.10)
B	0.00	0.00	0.45	1.92	15.29	44.20	3.43	8.07	26.64
	(0.00)	(0.00)	(1.12)	(2.88)	(6.85)	(12.11)	(3.27)	(8.34)	(7.70)
CCC/C	0.00	0.00	0.29	0.59	2.05	21.11	12.02	24.05	39.88

**Table 41**

Average Multiyear Global Corporate Transition Matrices (1981-2015) – All Financials (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.00)	(0.00)	(3.88)	(3.12)	(4.14)	(14.40)	(10.88)	(18.68)	(16.09)
<b>10-year</b>									
AAA	24.63	34.39	9.66	2.23	0.10	0.35	0.05	1.04	27.55
	(10.96)	(14.32)	(4.97)	(2.86)	(0.32)	(0.72)	(0.22)	(1.28)	(8.84)
AA	1.28	31.34	29.35	4.77	0.42	0.40	0.04	1.24	31.17
	(0.82)	(6.30)	(6.49)	(2.10)	(0.38)	(0.46)	(0.09)	(1.23)	(5.43)
A	0.12	8.75	36.90	8.53	2.29	0.45	0.19	2.15	40.62
	(0.40)	(2.62)	(4.82)	(2.80)	(1.15)	(0.51)	(0.25)	(0.99)	(6.23)
BBB	0.00	2.31	14.18	24.62	2.63	0.97	0.67	4.93	49.70
	(0.00)	(3.38)	(3.96)	(5.53)	(1.08)	(0.56)	(0.67)	(2.19)	(5.39)
BB	0.00	0.12	4.37	16.24	8.30	4.12	0.12	11.44	55.29
	(0.00)	(0.42)	(3.77)	(4.58)	(5.77)	(2.36)	(0.32)	(9.78)	(8.36)
B	0.00	0.00	2.05	6.87	10.36	9.13	0.41	15.08	56.10
	(0.00)	(0.00)	(2.91)	(6.25)	(4.73)	(5.91)	(1.81)	(12.83)	(11.90)
CCC/C	0.00	0.00	0.51	0.51	4.10	10.26	0.00	31.28	53.33
	(0.00)	(0.00)	(5.15)	(1.43)	(6.41)	(9.57)	(0.00)	(22.75)	(20.07)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 42**

Average Multiyear Global Corporate Transition Matrices (1981-2015) – Insurance (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
<b>One-year</b>									
AAA	87.68	10.13	0.28	0.00	0.07	0.07	0.14	0.00	1.63
	(12.08)	(11.60)	(1.32)	(0.00)	(0.32)	(0.43)	(0.87)	(0.00)	(2.21)
AA	0.64	86.93	7.79	0.39	0.05	0.05	0.07	0.05	4.02
	(1.06)	(6.78)	(5.84)	(0.99)	(0.16)	(0.15)	(0.51)	(0.16)	(2.34)
A	0.02	2.67	89.15	3.50	0.23	0.09	0.02	0.14	4.18
	(0.07)	(2.52)	(4.79)	(2.63)	(0.57)	(0.27)	(0.07)	(0.28)	(2.02)
BBB	0.00	0.18	6.16	81.84	2.94	0.43	0.36	0.21	7.88
	(0.00)	(0.80)	(3.53)	(4.59)	(2.78)	(1.14)	(0.84)	(0.76)	(3.18)
BB	0.00	0.13	0.51	8.73	72.91	3.54	1.39	0.76	12.03
	(0.00)	(0.99)	(2.28)	(9.87)	(12.83)	(4.36)	(3.42)	(2.37)	(7.66)
B	0.00	0.23	0.47	1.17	8.88	71.26	2.80	2.80	12.38
	(0.00)	(1.34)	(3.11)	(3.35)	(8.57)	(13.95)	(4.90)	(5.76)	(7.86)
CCC/C	0.00	0.00	0.00	0.00	3.66	13.41	41.46	23.17	18.29
	(0.00)	(0.00)	(0.00)	(0.00)	(11.76)	(22.26)	(31.14)	(26.70)	(25.48)
<b>Three-year</b>									
AAA	65.65	26.13	1.84	0.00	0.14	0.14	0.28	0.35	5.45
	(18.41)	(17.54)	(2.76)	(0.00)	(0.55)	(0.62)	(1.03)	(0.89)	(5.81)
AA	1.50	66.24	17.75	1.89	0.21	0.26	0.08	0.32	11.75

Table 42

Average Multiyear Global Corporate Transition Matrices (1981-2015) – Insurance (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(2.12)	(10.65)	(7.23)	(2.19)	(0.53)	(0.62)	(0.21)	(0.45)	(4.13)
A	0.07	6.27	72.13	6.63	0.84	0.18	0.16	0.61	13.10
	(0.18)	(5.08)	(9.31)	(2.91)	(1.42)	(0.75)	(0.27)	(1.05)	(4.78)
BBB	0.00	0.53	14.78	58.28	4.35	0.86	0.53	1.23	19.43
	(0.00)	(1.77)	(6.09)	(7.69)	(3.41)	(1.08)	(1.29)	(2.02)	(4.30)
BB	0.00	0.14	2.01	18.22	40.60	4.45	1.72	3.01	29.84
	(0.00)	(1.06)	(4.71)	(12.32)	(15.46)	(4.81)	(4.64)	(5.38)	(11.66)
B	0.00	0.00	2.54	4.52	16.10	41.24	1.41	8.47	25.71
	(0.00)	(0.00)	(6.07)	(8.99)	(11.52)	(16.28)	(2.95)	(10.09)	(10.81)
CCC/C	0.00	0.00	1.27	2.53	5.06	18.99	15.19	31.65	25.32
	(0.00)	(0.00)	(11.42)	(11.20)	(10.68)	(22.94)	(18.85)	(28.81)	(25.03)
<b>10-year</b>									
AAA	25.08	38.17	10.58	1.80	0.16	0.55	0.08	1.65	21.94
	(13.02)	(13.08)	(6.37)	(2.76)	(0.51)	(1.22)	(0.35)	(1.86)	(10.72)
AA	1.62	32.35	27.89	4.10	0.61	0.65	0.07	1.83	30.88
	(1.82)	(6.78)	(5.80)	(2.42)	(0.77)	(0.81)	(0.17)	(1.05)	(5.76)
A	0.30	8.79	40.82	7.68	1.89	0.44	0.47	2.87	36.73
	(1.50)	(5.74)	(9.72)	(2.87)	(2.02)	(0.47)	(0.54)	(1.64)	(8.06)
BBB	0.00	2.46	16.31	29.91	2.80	0.59	0.34	5.27	42.31
	(0.00)	(5.35)	(7.86)	(6.23)	(2.82)	(0.56)	(0.86)	(5.13)	(4.93)
BB	0.00	0.56	8.17	17.46	11.27	3.10	0.00	18.59	40.85
	(0.00)	(1.86)	(8.00)	(9.64)	(8.99)	(4.38)	(0.00)	(15.79)	(11.92)
B	0.00	0.00	8.48	15.76	10.30	4.85	1.21	18.18	41.21
	(0.00)	(0.00)	(11.52)	(19.29)	(11.44)	(8.40)	(5.94)	(14.80)	(17.25)
CCC/C	0.00	0.00	2.33	0.00	0.00	0.00	0.00	55.81	41.86
	(0.00)	(0.00)	(15.54)	(0.00)	(0.00)	(0.00)	(0.00)	(32.49)	(31.95)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Table 43

Average Multiyear Global Corporate Transition Matrices (1981-2015) – Financial Institutions (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
<b>One-year</b>									
AAA	86.08	8.74	0.43	0.22	0.11	0.00	0.00	0.00	4.42
	(13.50)	(12.98)	(1.31)	(0.95)	(0.80)	(0.00)	(0.00)	(0.00)	(4.31)
AA	0.40	86.23	8.95	0.37	0.00	0.00	0.00	0.02	4.02
	(0.66)	(7.74)	(7.28)	(0.75)	(0.00)	(0.00)	(0.00)	(0.10)	(2.40)
A	0.02	2.23	86.97	4.65	0.23	0.06	0.01	0.07	5.75
	(0.20)	(2.04)	(5.46)	(3.88)	(0.72)	(0.16)	(0.07)	(0.25)	(3.10)
BBB	0.00	0.30	4.15	83.19	4.01	0.51	0.05	0.34	7.44
	(0.00)	(0.75)	(3.75)	(5.64)	(3.38)	(1.16)	(0.23)	(0.78)	(2.38)

**Table 43**

Average Multiyear Global Corporate Transition Matrices (1981-2015) – Financial Institutions (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
BB	0.00	0.11	0.11	6.23	75.86	5.41	0.74	0.89	10.64
	(0.00)	(0.34)	(0.75)	(4.03)	(7.72)	(4.28)	(1.75)	(1.51)	(6.62)
B	0.00	0.00	0.05	0.40	6.88	75.24	3.59	2.99	10.86
	(0.00)	(0.00)	(0.60)	(1.00)	(5.24)	(8.96)	(4.67)	(4.91)	(4.87)
CCC/C	0.00	0.00	0.00	0.00	0.94	15.05	48.90	14.42	20.69
	(0.00)	(0.00)	(0.00)	(0.00)	(4.05)	(11.28)	(19.16)	(15.24)	(12.39)
<b>Three-year</b>									
AAA	63.86	20.96	1.31	0.87	0.33	0.00	0.00	0.00	12.66
	(19.10)	(19.41)	(3.07)	(2.16)	(1.05)	(0.00)	(0.00)	(0.00)	(7.81)
AA	0.95	63.65	21.45	1.83	0.19	0.08	0.00	0.11	11.76
	(0.97)	(12.39)	(10.17)	(2.02)	(0.55)	(0.40)	(0.00)	(0.26)	(5.26)
A	0.03	5.51	66.57	9.42	1.46	0.34	0.09	0.35	16.24
	(0.22)	(3.90)	(7.97)	(4.12)	(2.09)	(0.54)	(0.28)	(0.63)	(6.19)
BBB	0.00	0.79	10.38	59.11	5.43	1.26	0.34	1.52	21.16
	(0.00)	(1.35)	(7.46)	(7.42)	(4.03)	(1.57)	(0.88)	(2.03)	(5.13)
BB	0.00	0.17	0.57	14.51	43.97	8.04	0.92	3.93	27.88
	(0.00)	(0.57)	(1.42)	(5.59)	(10.14)	(5.33)	(1.99)	(4.57)	(9.96)
B	0.00	0.00	0.00	1.35	15.11	44.84	3.87	7.99	26.84
	(0.00)	(0.00)	(0.00)	(2.41)	(8.31)	(12.93)	(4.31)	(10.16)	(9.38)
CCC/C	0.00	0.00	0.00	0.00	1.15	21.76	11.07	21.76	44.27
	(0.00)	(0.00)	(0.00)	(0.00)	(4.44)	(15.11)	(14.09)	(18.14)	(15.70)
<b>10-year</b>									
AAA	23.85	27.90	8.09	2.96	0.00	0.00	0.00	0.00	37.20
	(13.87)	(18.11)	(5.95)	(5.18)	(0.00)	(0.00)	(0.00)	(0.00)	(11.51)
AA	0.93	30.29	30.85	5.46	0.22	0.15	0.00	0.63	31.48
	(0.90)	(9.27)	(8.82)	(3.55)	(0.55)	(0.32)	(0.00)	(1.99)	(6.39)
A	0.00	8.72	34.46	9.06	2.54	0.46	0.02	1.70	43.03
	(0.00)	(3.17)	(4.85)	(4.37)	(2.46)	(0.67)	(0.08)	(1.37)	(6.64)
BBB	0.00	2.24	13.30	22.44	2.56	1.12	0.81	4.80	52.75
	(0.00)	(3.13)	(3.44)	(6.00)	(1.12)	(0.79)	(1.01)	(1.90)	(6.27)
BB	0.00	0.00	3.30	15.89	7.47	4.41	0.16	9.44	59.32
	(0.00)	(0.00)	(3.24)	(4.89)	(6.81)	(2.91)	(0.38)	(9.04)	(10.16)
B	0.00	0.00	0.74	5.06	10.37	10.00	0.25	14.44	59.14
	(0.00)	(0.00)	(1.82)	(4.50)	(5.54)	(7.04)	(0.47)	(16.69)	(12.73)
CCC/C	0.00	0.00	0.00	0.66	5.26	13.16	0.00	24.34	56.58
	(0.00)	(0.00)	(0.00)	(1.90)	(8.44)	(11.74)	(0.00)	(20.87)	(18.68)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

**Table 44**

Average Multiyear Global Corporate Transition Matrices (1981-2015) – Nonfinancials (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
<b>One-year</b>									
AAA	87.14	8.03	0.85	0.00	0.07	0.00	0.00	0.00	3.91
	(8.40)	(7.44)	(1.68)	(0.00)	(0.34)	(0.00)	(0.00)	(0.00)	(4.17)
AA	0.55	86.83	7.67	0.71	0.09	0.13	0.00	0.00	4.02
	(0.70)	(5.68)	(3.75)	(1.02)	(0.31)	(0.36)	(0.00)	(0.00)	(2.67)
A	0.04	1.32	87.43	6.38	0.40	0.18	0.02	0.03	4.20
	(0.11)	(1.25)	(4.15)	(2.51)	(0.50)	(0.40)	(0.09)	(0.08)	(2.27)
BBB	0.01	0.06	3.10	86.40	3.88	0.54	0.11	0.15	5.76
	(0.05)	(0.13)	(1.83)	(4.57)	(1.79)	(0.77)	(0.25)	(0.28)	(1.98)
BB	0.02	0.02	0.12	4.75	77.09	7.35	0.59	0.70	9.37
	(0.07)	(0.10)	(0.27)	(1.87)	(4.78)	(3.59)	(0.68)	(0.92)	(2.47)
B	0.00	0.03	0.09	0.17	5.04	74.25	4.49	3.85	12.08
	(0.00)	(0.10)	(0.23)	(0.22)	(2.06)	(4.28)	(2.43)	(3.49)	(2.36)
CCC/C	0.00	0.00	0.16	0.24	0.47	12.55	43.69	27.96	14.94
	(0.00)	(0.00)	(0.53)	(0.80)	(0.91)	(8.72)	(9.61)	(12.40)	(5.62)
<b>Three-year</b>									
AAA	66.47	18.28	3.61	0.29	0.14	0.07	0.00	0.00	11.13
	(11.31)	(9.81)	(3.17)	(1.31)	(0.48)	(0.32)	(0.00)	(0.00)	(7.25)
AA	1.25	65.76	18.13	2.54	0.58	0.31	0.02	0.03	11.38
	(0.98)	(10.10)	(5.78)	(1.99)	(0.79)	(0.60)	(0.08)	(0.11)	(5.11)
A	0.08	3.02	67.54	14.66	1.51	0.64	0.09	0.13	12.33
	(0.12)	(2.57)	(6.57)	(3.84)	(1.12)	(0.84)	(0.16)	(0.20)	(3.84)
BBB	0.03	0.18	7.43	65.79	7.73	1.96	0.28	0.79	15.81
	(0.08)	(0.29)	(3.52)	(8.49)	(2.32)	(1.56)	(0.37)	(1.10)	(4.00)
BB	0.01	0.04	0.50	10.68	46.59	12.51	1.34	4.30	24.04
	(0.07)	(0.15)	(0.71)	(3.47)	(7.29)	(3.14)	(0.95)	(3.77)	(4.56)
B	0.01	0.04	0.22	0.78	10.29	40.76	4.68	13.64	29.59
	(0.06)	(0.13)	(0.47)	(0.74)	(3.12)	(5.63)	(1.91)	(8.01)	(5.14)
CCC/C	0.00	0.00	0.13	0.66	1.64	15.99	10.54	44.04	26.98
	(0.00)	(0.00)	(0.43)	(1.28)	(1.99)	(6.98)	(6.90)	(13.69)	(8.78)
<b>10-year</b>									
AAA	29.18	26.85	10.43	3.97	0.23	0.00	0.00	0.23	29.11
	(9.76)	(7.67)	(3.93)	(3.43)	(0.62)	(0.00)	(0.00)	(0.55)	(8.08)
AA	1.44	24.90	29.32	9.00	1.73	0.50	0.02	0.37	32.72
	(0.95)	(7.87)	(3.96)	(3.90)	(1.08)	(0.53)	(0.10)	(0.53)	(4.51)
A	0.12	3.49	33.76	22.92	3.50	1.37	0.13	1.37	33.34
	(0.15)	(2.56)	(4.41)	(4.39)	(1.06)	(0.81)	(0.19)	(0.90)	(2.88)
BBB	0.03	0.35	9.69	34.03	8.02	3.00	0.26	4.68	39.94
	(0.12)	(0.34)	(4.10)	(5.79)	(1.39)	(1.32)	(0.23)	(2.04)	(3.34)
BB	0.02	0.06	1.46	10.46	14.84	8.32	0.72	16.47	47.64



**Table 44**

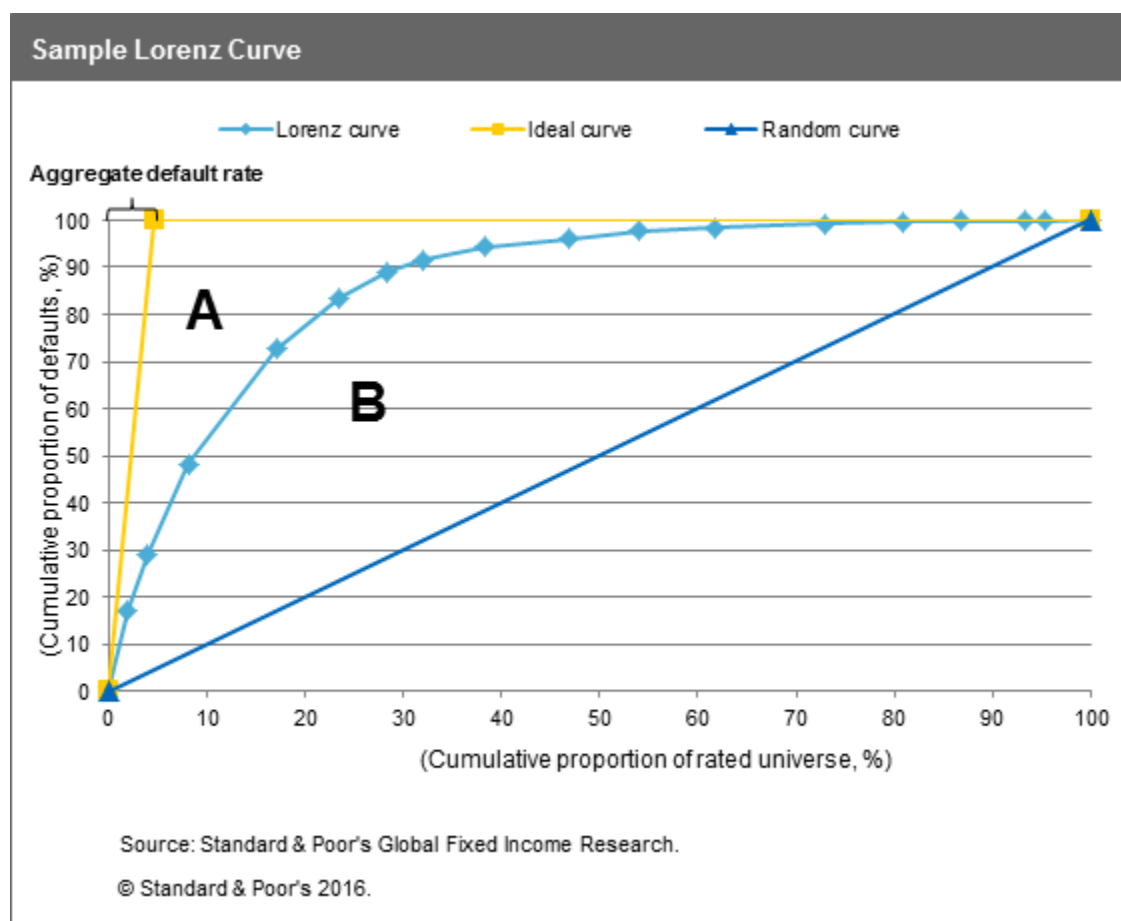
Average Multiyear Global Corporate Transition Matrices (1981-2015) – Nonfinancials (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.09)	(0.16)	(1.10)	(3.67)	(3.85)	(2.79)	(0.45)	(5.76)	(3.73)
B	0.00	0.04	0.36	2.34	6.58	8.34	0.88	30.34	51.11
	(0.00)	(0.08)	(0.68)	(1.72)	(1.82)	(2.89)	(0.56)	(8.69)	(5.23)
CCC/C	0.00	0.00	0.15	0.96	3.54	3.54	0.44	53.57	37.80
	(0.00)	(0.00)	(0.43)	(1.11)	(2.60)	(3.02)	(0.81)	(11.51)	(9.98)

Notes: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

## Appendix II: Gini Methodology

To measure relative ratings performance, we utilize the Lorenz curve as a graphical representation of the proportionality of a distribution, and we summarize this via the Gini coefficient. For this study, the Lorenz curve is a plotted with the x axis showing the cumulative share of issuers, arranged by rating, while the y axis represents the cumulative share of defaulters, also arranged by rating. For both axes of the Lorenz curve, the observations are ordered from the low end of the ratings scale ('CCC'/C) to the high end ('AAA'). As an example, if 'CCC'/C rated entities made up 10% of the total population of issuers at the start of the time frame examined (x axis) and 50% of the defaulters (y axis), then the coordinate (10, 50) would be the first point on the curve. If S&P Global Ratings' corporate ratings only randomly approximated default risk, the Lorenz curve 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 (the ideal curve) and its Gini coefficient would be one (see chart 31). The procedure for calculating the Gini coefficients is illustrated in chart 31—area B is bounded by the random curve and the Lorenz curve, while area A is bounded by the Lorenz curve and the ideal curve. The Gini coefficient is defined as area B divided by the total of areas A plus 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.

Chart 31



## Appendix III: Defaults In Profile

In 2015, 113 companies (including seven confidential issuers) defaulted with US\$110.3 billion of debt outstanding. Also, S&P Global Ratings revised its rating on one sovereign to 'SD' (selective default). This appendix provides summaries of the events leading up to each corporate default and, in some cases, events following the default. We also include the instruments outstanding at the time for each of the companies that S&P Global Ratings rates.

### Kaissa Group Holdings Ltd.

Dennis Lee, CFA, Hong Kong (852)2533-3563; Laura C Li, CFA, Beijing (86) 10-6569-2930

- US\$800 million 8.875% notes due March 19, 2018
- US\$500 million 10.25% notes due Jan. 8, 2020
- US\$400 million 9.00% notes due June 6, 2019
- US\$250 million 12.875% notes due Sept. 18, 2017
- CNY1.5 billion 8.00% U.S.-dollar settled convertible due Dec. 20, 2015
- CNH1.8 billion 6.875% notes due April 22, 2016
- HKD\$400 million term loan bank loan due May 26, 2015
- US\$350 million 13.50% fixed senior unsecured notes due April 28, 2015

- HKD\$400 million guaranteed unsecured term loan bank loan due Aug. 9, 2016
- HKD\$250 million guaranteed unsecured term loan bank loan due Dec. 31, 2016

On Jan. 5, 2015, S&P Global Ratings lowered its long-term corporate credit rating on China-based real estate developer Kaisa Group Holdings Ltd. (incorporated in the Cayman Islands, a U.S. tax haven) to 'SD' from 'BB-'. The downgrade followed the company's default on its HKD\$400 million offshore term loan. Kaisa's other debts have cross-default clauses, and this event of default is expected to accelerate debt repayments in all of its other debts.

On March 24, 2015, we lowered the long-term corporate credit rating on Kaisa to 'D' from 'SD'. The default was a result of the company's failure to make its US\$52 million coupon payments due on March 18 and March 19.

On June 25, 2015, we discontinued the ratings on the company because sufficient and timely information was not available to assess Kaisa's credit quality.

**Table 45**

<b>Kaisa Group Holdings Ltd.--Issuer Credit Rating History</b>	
<b>Date</b>	<b>To</b>
25-Jun-2015	NR/--/--
24-Mar-2015	D/--/--
05-Jan-2015	SD/NM/--
23-Dec-2014	BB-/Watch Neg/--
02-May-2014	BB-/Stable/--
11-Mar-2013	B+/Stable/--
20-Mar-2012	B+/Negative/--
25-May-2011	B+/Stable/--
24-Jan-2011	BB-/Negative/--
12-Apr-2010	BB-/Stable/--

## **OAS S.A.**

Felipe Speranzini, Sao Paulo (55) 11-3039-9751; Renata Lotfi, Sao Paulo (55) 11-3039-9724

- BRL R\$170 million debentures due April 10, 2015
- US\$500 million 8.875% perpetual notes
- US\$400 million 8.00% notes due July 2, 2021
- US\$875 million 8.25% notes due Oct. 19, 2019
- BRL R\$100 million debentures due April 11, 2016
- BRL R\$347.35 million secured notes due Oct. 21, 2024
- BRL R\$347.35 million secured notes due July 21, 2024
- BRL160 million floating rate debentures due April 11, 2016

On Jan. 7, 2015, S&P Global Ratings lowered its global scale corporate credit rating on Brazilian engineering and construction and infrastructure investment group OAS S.A. to 'D' from 'CC'. The ratings were lowered after the company missed its principal and interest payment, on its ninth debenture issuance. We believe that there is a high possibility that the company will face general default and, therefore, could be in a process to restructure all its outstanding debt.

On March 30, 2015, we withdrew the ratings on OAS at the company's request.

Earlier, on Jan. 5, 2015, we lowered the global scale rating on OAS to 'CC' from 'B+' and placed the rating on CreditWatch with negative implications. The rating action followed the company's missed interest payment for about \$16 million on its 2021 notes due Jan. 2, 2015.

**Table 46**

**OAS S.A.--Issuer Credit Rating History**

Date	To
30-Mar-2015	NR/--/--
07-Jan-2015	D/--/--
05-Jan-2015	CC/Watch Neg/--
19-Nov-2014	B+/Negative/--
17-Jun-2014	BB-/Negative/--
17-Sep-2012	BB-/Stable/--

**Verso Paper Holdings LLC**

Matthew Lynam, CFA, New York (1) 212-438-8002; James E Fielding, New York (1) 212-438-2452; Christopher M Andrews, New York (1) 212-438-9516

- US\$150 million ABL revolver bank loan due May 4, 2017
- US\$50 million revolver bank loan due May 4, 2017
- US\$271.6 million 11.75% senior secured notes due Jan. 15, 2019
- US\$300 million 11.375% senior subordinated notes due Aug. 1, 2016
- US\$417.9 million first-lien notes due Jan. 15, 2019
- US\$396 million 8.75% senior secured second priority notes due Feb. 1, 2019

On Jan. 8, 2015, S&P Global Ratings lowered its corporate credit ratings on U.S.-based coated paper producer Verso Paper Holdings LLC and its holding company, Verso Paper Finance Holdings LLC, to 'SD' from 'CC'. The ratings were lowered following the completion of Verso Paper's acquisition of competitor NewPage Holdings Inc. For this acquisition, Verso completed a two-part debt exchange whereby both senior secured second priority and senior subordinated noteholders realized meaningful reductions in principal. We view this exchange as tantamount to default because the investors will receive less than the promised of the original securities.

On July 8, 2014, we lowered the corporate credit rating on Verso Paper Holdings to 'CC' from 'CCC'. The downgrade reflected the company's plan to conduct a two-part exchange for its senior secured second-priority notes and senior subordinated notes.

On June 29, 2015, we raised our corporate credit rating on Verso Paper Holdings and its parent, Verso Paper Finance Holdings, to 'B-' from 'SD'. The company acquired its competitor NewPage Corp. The rating on Verso reflected S&P Global Ratings' view of the company's business risk profile as "weak" and its financial risk profile as "highly leveraged."

On Nov. 17, 2015, S&P Global Ratings lowered its corporate credit rating on Verso Paper Holdings to 'CCC-' from 'B-'. The downgrade and negative outlook followed Verso's announcement that it engaged with advisers and will pursue a capital restructuring of its debt and potentially sell assets, including its recently idled mill.

**Table 47**

**Verso Paper Holdings LLC--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
17-Nov-2015	CCC-/Negative/--
29-Jun-2015	B-/Stable/--
08-Jan-2015	SD/NM/--
08-Jul-2014	CC/Negative/--
20-Jun-2014	CCC/Negative/--
08-Jan-2014	CC/Watch Neg/--
27-Nov-2012	B-/Stable/--
13-Aug-2012	B/Negative/--
14-May-2012	B/Stable/--
11-May-2012	SD/NM/--
02-May-2012	CC/Negative/--
05-Apr-2010	B/Stable/--
23-Dec-2009	B-/Watch Pos/--
28-May-2009	B-/Negative/--
12-Mar-2009	B/Watch Neg/--
25-Nov-2008	B/Stable/--
12-Aug-2008	B/Positive/--
29-Apr-2008	B/Watch Pos/--
09-Feb-2007	B/Stable/--
12-Jul-2006	B+/Stable/--

**Renhe Commercial Holdings Co. Ltd.**

Christopher Yip, Hong Kong (852) 2533-3593; Dennis Lee, CFA, Hong Kong (852)2533-3563

- US\$300 million 13.00% senior unsecured notes due March 10, 2016
- US\$300 million 13.00% senior unsecured notes due March 10, 2016
- US\$300 million 11.75% senior unsecured notes due May 18, 2015

On Jan. 8, 2015, S&P Global Ratings lowered its long-term corporate credit rating on underground shopping mall developer and operator Renhe Commercial Holdings Co. Ltd. to 'SD' from 'CC'. The downgrade followed the company's completion of a buyback of US\$221.3 million of its outstanding senior unsecured notes due 2015 and US\$438.8 million of its outstanding senior unsecured notes due 2016 at a substantial discount to their par value. We view this transaction as a distressed exchange and equivalent to default.

On Jan. 21, 2015, we raised the long-term corporate credit rating on Renhe Commercial Holdings to 'CCC' from 'SD'. The outlook is negative. The ratings were raised after Renhe completed an exchange offer to buy back 73.8% of its 2015 senior unsecured notes and 73.1% of its 2016 senior unsecured notes, with the rest remaining outstanding. The company is not likely to be able to sustain its financial commitments, given its weak operating performance.

On Aug. 14, 2015, S&P Global Ratings bases the negative outlook for the next 12 months on its assessment of the company's weak liquidity due to poor sales execution and heightened refinancing risk in 2016.

**Table 48****Renhe Commercial Holdings Co. Ltd.--Issuer Credit Rating History**

Date	To
21-Jan-2015	CCC/Negative/--
08-Jan-2015	SD/NM/--
26-Nov-2014	CC/Negative/--
05-Apr-2013	CCC/Negative/--
04-Jul-2012	B-/Negative/--
28-Mar-2012	B/Watch Neg/--
15-Mar-2012	B+/Negative/--
14-Dec-2011	BB-/Watch Neg/--
23-May-2011	BB-/Stable/--
08-Feb-2011	BB/Negative/--
27-Apr-2010	BB/Stable/--

**Virgolino de Oliveira S.A. - Acucar e Alcool**

Flavia M Bedran, Sao Paulo (55) 11- 3039-9758; Luisa Vilhena, Sao Paulo (55) 11-3039-9727; Laura Martinez, Mexico City (52) 55-5081-4425; Marcus Fernandes, Sao Paulo (55) 11-3039-9734

- US\$100 million first guaranteed senior secured term loan bank loan due Nov. 3, 2015
- US\$135 million 10.875% notes due Jan. 13, 2020
- US\$300 million 11.75% notes due Feb. 9, 2022
- US\$300 million 10.50% notes due Jan. 28, 2018

On Jan. 14, 2015, S&P Global Ratings lowered its global scale corporate credit ratings and secured debt ratings on Brazilian sugarcane processor Virgolino de Oliveira S.A. – Acucar e Alcool (GVO) to 'D' from 'CC'. The downgrade followed the company's default on the secured bonds' interest payment due Jan. 13, 2015, for about \$8 million.

Prior to its default, on Jan. 7, 2015, we lowered the global scale corporate credit and debt ratings on GVO to 'CC' from 'CCC-' and placed it on CreditWatch with negative implications. The downgrade reflected our assumption that GVO wouldn't be able to comply with its interest payments for about \$40 million, \$8.5 million of which was due Jan. 13, 2015.

On Aug. 7, 2015, we affirmed our 'D' ratings on GVO as the company was still under a restructuring process.

On Sept. 3, 2015, we affirmed and then withdrew our global scale corporate credit and issue-level ratings on Virgolino de Oliveira at the issuer's request. At the time of the withdrawal, all ratings were 'D'.

**Table 49****Virgolino de Oliveira S.A. - Acucar e Alcool--Issuer Credit Rating History**

Date	To
03-Sep-2015	NR/--/--
14-Jan-2015	D/--/--
07-Jan-2015	CC/Watch Neg/--
20-Oct-2014	CCC-/Watch Neg/--
31-Jan-2014	B/Negative/--

**Table 49**

**Virgolino de Oliveira S.A. - Acucar e Alcool--Issuer Credit Rating History (cont.)**

Date	To
12-Jan-2011	B/Stable/--

**Talon PIKco N.V.**

Gerhard Wortche, London +44 207 176 2106; Melvyn Cooke, Paris (33) 1-4420-6783

On Jan. 29, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Belgium-based Talon PIKco N.V. to 'D' from 'CC' after its subsidiary, Truvo N.V., underwent a debt restructuring that we consider a distressed exchange. Truvo received consent from lenders to modify its loan agreement that allows it to reschedule some of its interests and pay them subject to a minimum cash balance. Loan modification by a distressed issuer is considered a de facto restructuring and tantamount to default under our criteria.

On Dec. 18, 2014, we lowered the long-term corporate credit rating on Talon PIKco to 'CC' from 'CCC-' based on its subsidiary Truvo's refinancing risk. The capital structure of Truvo is unsustainable, and we expect the entity to implement debt restructuring that, as per our criteria, is equivalent to default.

On May 11, 2015, S&P Global Ratings withdrew its ratings on the company.

**Table 50**

**Talon PIKco N.V.--Issuer Credit Rating History**

Date	To
11-May-2015	NR/--/--
29-Jan-2015	D/--/--
18-Dec-2014	CC/Negative/--
27-Aug-2014	CCC-/Negative/--
21-Feb-2013	CCC/Negative/--
25-Nov-2011	CCC+/Negative/--
02-Dec-2010	B-/Negative/--

**Connacher Oil and Gas Ltd.**

Aniki Saha-Yannopoulos, CFA, PhD, Toronto 416-507-2579; Michelle S Dathorne, Toronto (1) 416-507-2563

- CAD350 million second-lien notes due Aug. 1, 2018
- US\$550 million 8.50% second-lien notes due Aug. 1, 2019
- US\$129.4 million first guaranteed senior secured term loan bank loan due May 23, 2018
- CAD\$30 million first guaranteed senior secured term loan bank loan due Dec. 31, 2016
- CAD\$128.4 million first guaranteed senior secured term loan bank loan due May 23, 2018

On Feb. 2, 2015, S&P Global Ratings lowered its long-term corporate credit rating and debt issue ratings on Canada-based oil and gas producer Connacher Oil and Gas Ltd. to 'D' from 'CC'. The ratings were lowered after the company announced its proposed recapitalization plan to exchange its existing C\$350 million and US\$550 million senior secured second-lien debt (plus accrued interest) for equity. The considerable fall in oil prices since June 2014

significantly weakened Connacher's liquidity position, rendering the company unable to fund both its debt servicing obligations and minimum maintenance capital spending requirements.

On April 14, 2015, we withdrew our 'D' long-term corporate credit rating on Connacher Oil and Gas because of lack of sufficient information to rate the company.

On Sept. 9, 2015, CLC Connacher deferred the scheduled Sept. 30 interest payment on its 12% notes, and on Dec. 15, 2015, CLC Connacher deferred the scheduled Dec. 31 interest payment.

**Table 51**

**Connacher Oil and Gas Ltd.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
14-Apr-2015	NR/--/--
02-Feb-2015	D/--/--
08-Jan-2015	CC/Negative/--
27-Oct-2014	CCC+/Negative/--
16-Aug-2013	CCC+/Stable/--
06-Dec-2012	B-/Negative/--
24-Sep-2012	B-/Negative/--
10-Jun-2009	B/Stable/--
13-Feb-2009	B/Watch Neg/--
15-Dec-2008	BB-/Watch Neg/--
08-Nov-2007	BB-/Stable/--
06-Sep-2006	B+/Stable/--

**Corporate Risk Holdings LLC (Altegrity Inc.)**

Peter C Deluca, New York (1) 212-438-1739; Rodney Olivero, CPA, New York (212) 438-2111

- US\$825 million 9.50% first-lien notes due July 1, 2019
- US\$61 million 15.00% third-lien pay-in-kind exchange notes due July 1, 2021
- US\$60 million revolver bank loan due April 1, 2019
- US\$29 million 11.75% senior sub notes due May 1, 2016
- US\$280 million 10.50% second-lien pay-in-kind exchange notes due July 1, 2020
- US\$275 million term bank loan due July 1, 2019
- US\$200 million floating rate second-lien pay-in-kind exchange notes due Dec. 31, 2020
- US\$11 million 12.00% senior unsecured notes due Nov. 1, 2015
- US\$11 million 10.50% senior notes due Nov. 1, 2015
- US\$1.385 billion term bank loan due Feb. 21, 2015
- US\$280.4 million second-lien notes due July 1, 2020
- US\$60.7 million third-lien notes due July 1, 2021
- US\$200 million second-lien notes due July 1, 2020

On Feb. 3, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based global information services provider Altegrity Inc. to 'D' from 'CCC-'. The ratings were lowered followed by the company's announcement that it plans to file a voluntary petition to implement a prenegotiated restructuring of its debt obligations under Chapter 11 of



the U.S. Bankruptcy Code. In the past few years, Altegrity's operating performance has diminished because of its reduced competitiveness in information services.

On Sept. 18, 2014, we lowered our corporate credit rating on Altegrity to 'CCC-' from 'CCC+'. The ratings were lowered after the U.S. Office of Personnel Management notified Altegrity's business segment, USIS, that it will not exercise its remaining options on its fieldwork and support services contracts.

On Sept. 8, 2015, Altegrity's emerged from Chapter 11 protection and substantially reduced its debts as the company's second- and third-lien noteholders converted their debt into equity, becoming the new majority owners.

On Sept. 23, 2015, Altegrity's name changed to Corporate Risk Holdings LLC.

**Table 52**

**Altegrity Inc.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
03-Feb-2015	D/--/--
18-Sep-2014	CCC-/Negative/--
03-Jul-2014	CCC+/Negative/--
03-Jul-2014	SD/NM/--
08-May-2014	CC/Negative/--
28-Jan-2014	CCC-/Negative/--
25-Jan-2013	CCC+/Negative/--
29-Jun-2012	B-/Stable/--
26-Jul-2011	B/Negative/--
12-Jul-2010	B/Stable/--
07-Jun-2010	B-/Watch Dev/--
10-May-2010	B-/Negative/--
01-Feb-2010	B/Watch Neg/--
08-Sep-2008	B/Stable/--
23-Aug-2007	B/Negative/--
14-May-2007	B+/Watch Neg/--
19-Dec-2005	B+/Negative/--
22-Sep-2005	B+/Stable/--
04-Dec-2002	BB-/Stable/--

**Afren PLC**

Christophe Boulrier, Milan 39 02 72 111 226; Lucas Sevenin, Paris (33) 1-4420-6661; Simon Redmond, London (44) 20-7176-3683

- US\$360 million 6.625% due 2020 notes due Dec. 9, 2020
- US\$300 million 10.25% notes due April 8, 2019
- US\$500 million 11.50% notes due Feb. 1, 2016
- US\$100 million term bank loan due Feb. 27, 2018

On Feb. 4, 2015, S&P Global Ratings lowered its long-term corporate credit rating on U.K.-headquartered oil and gas

exploration company Afren PLC to 'SD' from 'CC'. The ratings were lowered after Afren missed its obligations under both its \$300 million revolving credit facility (Ebok facility) and its bonds maturing in 2016. We consider the deferral of debt as equivalent to default.

On Jan. 23, 2015, we lowered the corporate credit rating on Afren to 'CC' from 'B'. The downgrade followed Afren's announcement that it asked its lenders to defer by three months a \$50 million principal payment due at the end of January 2015 on its Ebok \$300 million revolving credit facility, which matures in April 2016.

On June 10, 2015, we downgraded Afren to 'D' from 'SD'. Afren PLC announced on June 10, 2015, that it did not pay the interest due on its \$360 million senior secured bonds maturing in 2020. We consider nonpayment of interest on the due date to be a default. The company defaulted on all three of its bonds, after defaulting on its bonds maturing in 2016 and 2019 earlier this year.

On Aug. 4, 2015, Afren went into administration and announced the appointment of Blackstone Group International Partners LLP as its financial advisers, to assist with a review of the company's assets.

**Table 53**

**Afren PLC--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
10-Jun-2015	D/--/--
04-Feb-2015	SD/NM/--
23-Jan-2015	CC/Negative/--
22-Dec-2014	B/Negative/--
06-Aug-2014	B+/Negative/--
17-May-2013	B+/Stable/--
11-Mar-2013	B/Watch Pos/--
23-Dec-2011	B/Stable/--
26-Nov-2010	B-/Positive/--

**RadioShack Corp.**

Robert E Schulz, CFA, New York (1) 212-438-7808; Diya G Iyer, New York (1) 212-438-4001

- US\$325 million 6.75% senior notes due May 15, 2019
- US\$140 million first guaranteed senior secured asset-based bank loan due Dec. 10, 2018
- US\$275 million first guaranteed senior secured term loan bank loan due Dec. 10, 2018
- US\$50 million first guaranteed senior secured term loan bank loan due Dec. 10, 2018
- US\$250 million second guaranteed secured term loan bank loan due Dec. 10, 2018

On Feb. 6, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based consumer electronic goods and services retailer RadioShack Corp. to 'D' from 'CCC-'. The ratings were lowered after the company's filing of a petition under Chapter 11 of the U.S. Bankruptcy Code. As per the proposed plan, the company has signed a purchase agreement to sell 1,500 and 2,400 stores to General Wireless Inc. and close down its remaining stores.

On March 26, 2015, we withdrew the ratings on RadioShack as bankruptcy proceedings continued.

On Sept. 11, 2014, we lowered the corporate credit rating on RadioShack to 'CCC-' from 'CCC'. The downgrade reflected the company's announcement that it needs capital and could enter debt restructuring process along with store closures to meet its requirements.

On Oct. 9, 2015, the successor to RadioShack, RS Legacy Corp., emerged from Chapter 11.

**Table 54**

RadioShack Corp.--Issuer Credit Rating	
Date	To
26-Mar-2015	NR/--/--
06-Feb-2015	D/--/--
11-Sep-2014	CCC-/Negative/--
16-Jun-2014	CCC/Negative/--
20-Dec-2013	CCC+/Negative/--
01-Aug-2013	CCC/Negative/--
21-Nov-2012	CCC+/Negative/--
30-Jul-2012	B-/Negative/--
02-Mar-2012	B+/Negative/--
15-Nov-2011	BB-/Stable/--
12-Aug-2008	BB/Stable/--
25-Oct-2006	BB/Negative/--
24-Jul-2006	BBB-/Negative/--
21-Apr-2006	BBB-/Stable/--
08-Aug-2005	BBB+/Stable/--
13-May-2005	A-/Watch Neg/--
24-Feb-1999	A-/Stable/--
17-Oct-1996	A-/Negative/--
17-Jan-1994	A-/Stable/--
27-May-1993	A-/Watch Pos/--
25-Feb-1993	A-/Stable/--
04-Jan-1993	A/Watch Neg/--
08-Aug-1991	A/Stable/--
28-Nov-1984	A+/Watch Neg/--
10-Jan-1983	AAA/--/--
07-Jan-1982	A/--/--
01-Apr-1981	BBB+/--/--
12-Dec-1980	BB/--/--
13-Oct-1978	BB+/--/--
02-May-1969	BBB/--/--

### Commercial Bank Sudostroitelny Bank LLC

Anastasia Turdyeva, Moscow 7 (495) 783-4091; Roman Rybalkin, CFA, Moscow (7) 495-783-4094

- RUB2 billion 13.5% senior unsecured notes due Oct. 15, 2016
- US\$30 million 10.5% subordinated notes due Dec. 28, 2022

- US\$50 million 12% subordinated notes due Dec. 20, 2017

On Feb. 18, 2015, S&P Global Ratings lowered its long-term counterparty credit rating on Russia-based Commercial Bank Sudostroitelny Bank LLC to 'D' from 'CCC'. The ratings were lowered after the Russian central bank revoked Sudostroitelny Bank's banking license on Feb. 16, 2015, and placed it under temporary administration, which will manage the bank until the court decides on the timing and other issues concerning the bank's bankruptcy and liquidation. The ratings were subsequently withdrawn.

On Jan. 22, 2015, we lowered the long-term foreign and local currency counterparty credit ratings on Sudostroitelny Bank LLC to 'CCC' from 'B-'. The ratings reflected the bank's deteriorating liquidity conditions due to the outflows of its retail and corporate clients' fund, which was intensified by the growing pressure on ruble and the overall Russian economy, especially since December 2014.

**Table 55**

Commercial Bank Sudostroitelny Bank LLC--Issuer Credit Rating History	
Date	To
18-Feb-2015	NR/--/--
18-Feb-2015	D/--/--
22-Jan-2015	CCC/Watch Neg/--
07-Nov-2014	B-/Stable/--
03-Jun-2014	B/Negative/--
30-Dec-2013	B/Stable/--

### Bank Tavrishesky

Roman Rybalkin, CFA, Moscow (7) 495-783-4094; Sergey Voronenko, Moscow (7) 495-783-4003

On Feb. 18, 2015, S&P Global Ratings lowered its long-term counterparty credit rating and Russia national scale ratings on Russia-based Bank Tavrishesky to 'R' from 'CC'. The downgrade follows after Central Bank of Russia (CBR) appointed temporary administration to Bank Tavrishesky on Feb. 11. CBR's intervention reflects Bank Tavrishesky's inability to meet its financial obligations stemming from the liquidity crisis that the bank has been facing since December 2014.

On March 23, 2015, we withdrew the rating on Bank Tavrishesky at the issuer's request. The withdrawal follows the announcement from CBR and the Deposit Insurance Agency on March 13, 2015, regarding their rehabilitation plan for Bank Tavrishesky.

Earlier, on Jan. 28, 2015, we lowered the foreign and local currency long-term counterparty credit ratings on Bank Tavrishesky to 'CC' from 'CCC'. The downgrade reflected our view that Bank Tavrishesky will likely be subject to regulatory intervention because of liquidity issues that began in December 2014.

**Table 56**

Bank Tavrishesky--Issuer Credit Rating History	
Date	To
23-Mar-2015	NR/--/--
18-Feb-2015	R/NM/--

**Table 56****Bank Tavrishesky--Issuer Credit Rating History (cont.)**

<b>Date</b>	<b>To</b>
28-Jan-2015	CC/Watch Neg/--
31-Dec-2014	CCC/Watch Neg/--
17-Dec-2014	B-/Watch Neg/--
03-Jun-2014	B-/Negative/--
29-May-2012	B-/Stable/--

**Quicksilver Resources Inc.**

Carin Dehne-Kiley, CFA, New York (1) 212-438-1092; Stephen Scovotti, New York (1) 212-438-5882

- US\$200 million second-lien notes due June 6, 2019
- US\$675 million 11.00% senior unsecured notes due July 1, 2021
- US\$300 million 9.125% senior notes due Aug. 15, 2019
- US\$350 million 7.125% senior subordinated notes due April 1, 2016
- US\$625 million second-lien term bank loan due Dec. 31, 2019
- US\$600 million 11.75% senior notes due Jan. 1, 2016
- US\$475 million 8.25% senior notes due Aug. 1, 2015
- US\$1,250 million first guaranteed senior secured bank loan due Sept. 6, 2016

On Feb. 19, 2015, S&P Global Ratings lowered its corporate credit rating on North American oil and gas exploration and production (E&P) company Quicksilver Resources Inc. to 'D' from 'CCC-'. The rating was lowered after the entity missed the interest payment of approximately \$13.6 million in interest that was due on Feb. 17, 2015, on its 9.125% senior notes due 2019.

On March 17, the issuer filed for Chapter 11 bankruptcy protection. The bankruptcy court extended the exclusive period during which the company can file a reorganization plan through Feb. 1, 2016. Following this, the company will have to secure votes for the proposed plan, through April 13, 2016, as per the court ruling.

On April 21, 2015, we withdrew the ratings on Quicksilver Resources Inc. at the company's request.

**Table 57****Quicksilver Resources Inc.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
21-Apr-2015	NR/--/--
19-Feb-2015	D/--/--
03-Oct-2014	CCC-/Negative/--
30-Jun-2014	CCC+/Negative/--
25-Jun-2013	CCC+/Stable/--
17-Dec-2012	B-/Negative/--
27-Aug-2012	B-/Stable/--
27-Jun-2012	B-/Negative/--
08-May-2012	B/Negative/--
15-Mar-2011	B+/Negative/--

**Table 57**

Quicksilver Resources Inc.--Issuer Credit Rating History (cont.)	
Date	To
23-Jun-2009	B+/Stable/--
18-Jun-2009	B/Watch Pos/--
19-May-2009	B/Developing/--
02-Mar-2009	B/Negative/--
26-Jan-2009	B+/Negative/--
07-Jul-2008	BB-/Stable/--
07-Apr-2008	BB-/Positive/--
03-Mar-2006	BB-/Stable/--

### Norske Skogindustrier ASA

Gustav Liedgren, Stockholm (46) 8-440-5916; Terence O Smiyan, London (44) 20-7176-6304

- €150 million 11.75% notes due June 15, 2016
- €500 million 7.00% notes due June 26, 2017
- US\$200 million 6.125% bonds due Oct. 15, 2015
- US\$200 million 7.125% bonds due Oct. 15, 2033
- €290 million due 2020 bank loan
- US\$60.6 million 8% senior unsecured notes due Feb. 24, 2023
- €159 million senior unsecured notes due Feb. 24, 2021
- NOK250 million first-lien senior secured bank loan due Nov. 18, 2016

On Feb. 27, 2015, S&P Global Ratings lowered its corporate credit rating on Norway-based newsprint and magazine paper producer Norske Skogindustrier ASA (Norske Skog) to 'SD' from 'CC'. The downgrade followed the completion of Norske Skog's exchange of its senior unsecured notes, whereby existing investors received cash and new notes. As per our criteria, this exchange is tantamount to a default. We believe the holders of the notes received less value than the promise of the original security.

On March 6, 2015, we raised the long-term corporate credit rating on Norske Skog to 'CCC+' from 'SD'. The rating action followed our review of Norske Skog's business risk and financial risk profiles after it completed the exchange of its senior unsecured notes. We believe that the company improved its liquidity and debt maturity profile after the debt exchange.

On Nov. 17, 2015, we lowered the long-term corporate credit rating on Norske Skog to 'CC' from 'CCC'. The rating action was taken after Norske Skog launched a debt exchange offer for its outstanding €108 million and €212 million senior unsecured notes maturing in June 2016 and June 2017, respectively. We view the exchange as distressed due to the low recovery risk and substantial default risk. On completion of the plan, we would lower the ratings to 'SD'.

**Table 58**

Norske Skogindustrier ASA--Issuer Credit Rating History	
Date	To
17-Nov-2015	CC/Watch Neg/--

**Table 58**

Norske Skogindustrier ASA--Issuer Credit Rating History (cont.)	
Date	To
25-Sep-2015	CCC/Negative/--
06-Mar-2015	CCC+/Negative/--
27-Feb-2015	SD/NM/--
22-Jan-2015	CC/Watch Neg/--
06-Feb-2014	CCC+/Negative/--
02-Aug-2013	CCC/Negative/--
06-May-2013	CCC+/Negative/--
15-Feb-2013	CCC+/Stable/--
12-Feb-2013	SD/NM/--
21-Nov-2012	CCC+/Watch Neg/--
09-Mar-2012	B-/Stable/--
10-Nov-2011	B-/Negative/--
20-Sep-2011	B-/Watch Neg/--
16-Jun-2011	B-/Stable/--
12-Aug-2010	B-/Negative/--
17-Feb-2010	B/Negative/--
19-May-2009	B+/Negative/--
23-Sep-2008	BB-/Negative/--
21-Apr-2008	BB-/Watch Neg/--
28-Jan-2008	BB/Negative/--
22-Oct-2007	BB+/Negative/--
14-Nov-2006	BB+/Stable/--
20-Oct-2006	BBB-/Watch Neg/--
21-Mar-2006	BBB-/Negative/--
08-Apr-2004	BBB-/Stable/--
18-Mar-2004	BBB/Watch Neg/--
25-Mar-2003	BBB/Negative/--
05-Feb-2003	BBB/Watch Neg/--
12-Oct-2001	BBB/Stable/--

### American Eagle Energy Corp.

Christine Besset, Dallas 214-765-5865; Ben B Tsocanos, New York (1) 212-438-5014

- US\$175 million 11.00% senior notes due Sept. 1, 2019

On March 4, 2015, S&P Global Ratings lowered its corporate credit and issue-level ratings on U.S. oil and gas E&P company American Eagle Energy Corp. to 'D' from 'CCC+'. We lowered the ratings after American Eagle missed an interest payment for \$9.8 million due March 2, 2015, on its \$175 million senior secured notes due 2019.

On May 14, 2015, we withdrew the ratings on American Eagle Energy, including its 'D' corporate credit rating and 'D' senior secured debt ratings, at the issuer's request.

In June, the issuer reached an agreement to sell its assets worth \$70 million to an ad hoc committee of holders of its 11% secured notes. The noteholders eventually reduced the bid to \$52.5 million in order to promote the goals of the auction process.

**Table 59**

American Eagle Energy Corp.--Issuer Credit Rating History	
Date	To
14-May-2015	NR/--/--
04-Mar-2015	D/--/--
16-Jan-2015	CCC+/Negative/--
14-Nov-2014	CCC+/Stable/--
05-Aug-2014	CCC+/Developing/--

### BPZ Resources Inc.

Michael Tsai, New York (1) 212 438-1084; Paul B Harvey, New York (1) 212-438-7696

- US\$150 million senior notes due Dec. 31, 2019
- US\$168.8 million 8.5% senior unsecured notes due Oct. 1, 2017
- US\$161 million 6.5% senior unsecured bonds due March 1, 2049
- US\$170.9 million 6.5% senior unsecured bonds due March 1, 2049

On March 4, 2015, S&P Global Ratings lowered the corporate credit rating on U.S.-based BPZ Resources Inc. to 'D' from 'CCC+'. The downgrade follows BPZ's announcement that it would exercise its right to utilize the grace period for payment of \$62 million of principal and interest due March 1, 2015. Although the company is currently under the grace period, the downgrade to 'D' reflects our assessment that BPZ will not make the payment of principal and interest within the grace period. The ratings were subsequently withdrawn.

After the issuer's failed efforts to refinance the 6.5% convertible issue due March 1, 2015, with a \$150 million offering of secured notes in October, the issuer filed for Chapter 11 bankruptcy protection.

**Table 60**

BPZ Resources Inc.--Issuer Credit Rating History	
Date	To
04-Mar-2015	NR/--/--
04-Mar-2015	D/--/--
02-Oct-2014	CCC+/Developing/--

### Doral Financial Corp.

Sunsierre Newsome, New York (1) 212-438-2421; E.Robert Hansen, CFA, New York (1) 212-438-7402

- US\$100 million notes due April 26, 2022
- US\$100 million 7.65% Puerto Rico Conservation Trust Funds notes due March 26, 2016
- US\$7.7 million Puerto Rico Indl Tourist Ed, Med & Env Cntl Fac (Doral Fin Center Building) notes due Dec. 1, 2029
- US\$44.765 billion PR Ind. Tourist Ed, Med & Env. Control Facilities Financing Authority (AFICA) bonds due Dec. 1, 2029



On March 12, 2015, U.S.-based Doral Financial Corp. defaulted when it filed for Chapter 11 bankruptcy protection.

Previous to the default, on Dec. 1, 2014, S&P Global Ratings suspended the 'CC' issuer credit rating on Doral Financial because of lack of sufficient information to perform assessment of published ratings.

**Table 61**

Doral Financial Corp.--Issuer Credit Rating History	
Date	To
01-Dec-2014	NR/--/--
06-May-2014	CC/Watch Neg/--
17-Dec-2012	CCC-/Negative/--
13-Dec-2011	CCC+/Negative/--
07-May-2010	B-/Negative/--
19-Apr-2010	B-/Watch Dev/--
20-Mar-2009	B+/Watch Neg/--
01-Apr-2008	B+/Stable/--
20-Jul-2007	B/Watch Pos/--
30-Apr-2007	B/Watch Dev/--
05-Jan-2007	B/Negative/--
27-Oct-2006	B+/Negative/--
09-Jun-2006	B+/Watch Neg/--
27-Oct-2005	BB-/Watch Neg/--
31-May-2005	BB/Watch Neg/--
19-Apr-2005	BB+/Watch Neg/--
17-Mar-2005	BBB-/Negative/--
10-Feb-2005	BBB-/Stable/--

### UC Holdings Inc.

Nishit K Madlani, New York (1) 212-438-4070; Lawrence Orlowski, CFA, New York (1) 212-438-7800

- US\$150 million 10% 10.75% senior pay-in-kind toggle notes due Dec. 15, 2018
- US\$147.8 million 10% senior pay-in-kind notes due Dec. 15, 2018
- US\$375 million 9.25% senior secured notes due Aug. 1, 2018
- US\$25 million first-lien notes due Aug. 1, 2018

On March 12, 2015, U.S.-based auto supplier UC Holdings Inc. defaulted when it filed for Chapter 11 bankruptcy protection.

Previous to the default, on Nov. 20, 2014, we withdrew our ratings on UC Holdings because of a lack of sufficient information to perform surveillance of our published ratings.

**Table 62**

UC Holdings Inc.--Issuer Credit Rating History	
Date	To
20-Nov-2014	NR/--/--
10-Dec-2013	B-/Stable/--

**Table 62**

**UC Holdings Inc.--Issuer Credit Rating History (cont.)**

Date	To
14-Nov-2012	B/Stable/--

**Standard Register Co.**

Flavia M Bedran, Sao Paulo (55) 11-3039-9758; Marcelo Tayar, Sao Paulo (55) 11-3039-9762

- US\$86.2 million second guaranteed secured term loan bank loan due Feb. 1, 2020
- US\$123.75 million first guaranteed senior secured bank loan due Aug. 1, 2018
- US\$125 million first senior secured bank loan due Aug. 1, 2018

On March 12, 2015, U.S.-based media and entertainment company Standard Register Co. defaulted when it filed for Chapter 11 bankruptcy protection to pursue the sale of the company's assets. The bankruptcy court later approved the sale of assets worth \$307 million to Taylor Corp. on June 19, which was subsequently executed.

**Allied Nevada Gold Corp.**

Chiza B Vitta, Dallas (1) 214-765-5864; James E Fielding, New York (1) 212-438-2452

- CAD400 million 8.75% senior unsecured notes due June 1, 2019
- CAD75 million first-lien senior secured bank loan due April 30, 2016

On March 18, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based gold producer Allied Nevada Gold Corp. to 'D' from 'CCC' after the company filed a voluntary petition under Chapter 11 of the Bankruptcy Code. The company intends to work with creditors to restructure its balance sheet.

On Oct. 8, the bankruptcy court had approved the company's reorganization plan that was successfully completed. The issuer reemerged from Chapter 11 and is named Hycroft Mining Corp.

**Table 63**

**Allied Nevada Gold Corp.--Issuer Credit Rating History**

Date	To
27-Apr-2015	NR/--/--
18-Mar-2015	D/--/--
25-Nov-2014	CCC/Stable/--
28-Mar-2014	CCC+/Negative/--
21-Jun-2013	B/Negative/--
07-Jun-2012	B/Stable/--

**Armtec Holdings Ltd.**

Alessio Di Francesco, CFA, Toronto (1) 416-507-2573; Jarrett Bilous, Toronto (1) 416-507-2593

- CAD150 million 8.875% notes series A due Sept. 22, 2017
- CAD110 million 8% first guaranteed senior secured term loan bank due Dec. 21, 2016
- CAD60 million 3.25% first guaranteed senior secured bank loan due Dec. 21, 2016
- CAD40 million 6.5% subordinated bonds due June 30, 2017

On March 23, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Canada-based Armtec Holdings Ltd. to 'SD' from 'CCC-'. The ratings were lowered after Armtec missed the C\$6.7 million interest payment due March 22, 2015, on its senior unsecured notes.

Earlier, on Feb. 26, 2015, we lowered the long-term corporate credit rating on Armtec to 'CCC-' from 'CCC+'. The downgrade reflected our view that the company's capital structure is unsustainable and the sources of liquidity will not be sufficient to cover working capital needs, interest, and capital spending.

On April 29, 2015, we lowered our long-term corporate credit rating on Armtec to 'D' from 'SD'. The downgrade was in response to Armtec's announcement that it filed for creditor protection under the Companies' Creditors Arrangement Act (CCAA) in Ontario.

On June 2, 2015, we withdrew our ratings, including the 'D' long-term corporate credit rating, on the company due to lack of sufficient information to rate the company.

**Table 64**

Armtec Holdings Ltd.--Issuer Credit Rating History	
Date	To
02-Jun-2015	NR/--/--
29-Apr-2015	D/--/--
23-Mar-2015	SD/NM/--
26-Feb-2015	CCC-/Negative/--
18-Jun-2014	CCC+/Negative/--
13-Dec-2012	B-/Stable/--
05-Dec-2011	B/Negative/--
13-Jun-2011	B+/Watch Neg/--
01-Sep-2010	BB-/Stable/--

### **Sete Brasil Participacoes S.A.**

Julyana Yokota, Sao Paulo +55 11 3039 9731; Livia Vilela, Sao Paulo 55-11-3039-9775

- US\$342.8 million first guaranteed senior secured bank loan due Aug. 24, 2015
- BRL1.85 billion floating rate debentures series 1 due Aug. 15, 2033

On March 23, 2015, S&P Global Ratings lowered its global scale corporate credit rating on Brazil-based oil rig investment company Sete Brasil Participacoes S.A. to 'SD' from 'B-'. The downgrade followed Sete's declaration of default and subsequent nonpayment on the \$250 million bilateral bridge loan it has with Standard Chartered Bank.

Earlier, on March 16, 2015, we lowered the global scale rating on Sete to 'B-' from 'BB-'. The downgrade reflected Sete's difficulty in securing long-term financing. This, in turn, further pressures the company's liquidity and weakens its creditworthiness and delays the drilling vessels' construction.

On Dec. 22, 2015, we affirmed and then withdrew our global and national scale corporate credit ratings on Sete at the company's request.

**Table 65****Sete Brasil Participacoes S.A.--Issuer Credit Rating History**

Date	To
22-Dec-2015	NR/NR/--
23-Mar-2015	SD/NM/--
16-Mar-2015	B-/Watch Neg/--
13-Feb-2015	BB-/Watch Neg/--
17-Dec-2014	BB/Stable/--
23-Oct-2012	BB+/Stable/--

**EveryWare Global Inc.**

Beverly Correa, San Francisco 415-371-5055; Bea Y Chiem, San Francisco (1) 415-371-5070

On April 1, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based provider of tabletop and food preparation products EveryWare Global Inc. to 'D' from 'CCC+'. The downgrade followed the company's announcement that it planned to file a voluntary petition under Chapter 11 of the U.S. Bankruptcy Code to implement a prepackaged restructuring of its debt obligations. The operating performance of the entity has been weak over the past year. It received a waiver from financial sponsor-owner Monomoy Capital Partners in August 2014 to maintain its financial covenants. However, more recently, the company's auditors informed that they would include a going-concern qualification in the fiscal 2014 audit, which would constitute a default under the term loan agreement, triggering the petition to reorganize.

On June 30, 2015, we raised our corporate credit rating on EveryWare Global to 'CCC+' from 'D'. The rating action followed the company's emergence from bankruptcy after its completion of its financial restructuring. However, our outlook is still negative, reflecting our view that the company will continue to face liquidity constraints in the next 12 months and that it would be a challenge to improve its financial position.

**Table 66****EveryWare Global Inc.--Issuer Credit Rating History**

Date	To
30-Jun-2015	CCC+/Negative/--
01-Apr-2015	D/--/--
04-Aug-2014	CCC+/Negative/--
16-May-2014	CCC-/Negative/--
01-Apr-2014	B/Watch Neg/--
19-Apr-2012	B/Stable/--

**Liberty Tire Recycling Holdco LLC**

James T Siahaan, CFA, New York (1) 212-438-3023; Henry Fukuchi, New York (1) 212-438-2023

- US\$225 million 11.00% senior notes due March 31, 2021

On April 3, 2015, S&P Global Ratings lowered the corporate credit rating on U.S.-based tire recycler and producer of tire-derived products Liberty Tire Recycling Holdco LLC to 'SD' from 'CC'. The rating was lowered after the company completed a financial restructuring agreement among its financial sponsor, bondholders, and banks to exchange the

company's senior unsecured notes. Since the investors will receive less than the value promised under the terms of the original securities, we considered this a distressed exchange.

On May 5, 2015, we withdrew our ratings on Liberty and its subsidiaries at the issuer's request. On June 16, 2015, we assigned a 'B-' corporate credit rating on Liberty. The outlook is stable. The rating reflects the entities' efforts to refinance existing debt by issuing new credit facilities.

**Table 67**

Liberty Tire Recycling Holdco LLC--Issuer Credit Rating History	
Date	To
16-Jun-2015	B-/Stable/--
05-May-2015	NR/--/--
03-Apr-2015	SD/NM/--
23-Feb-2015	CC/Watch Neg/--
08-Jan-2015	CCC-/Watch Neg/--
23-Jul-2014	B-/Negative/--
24-Jul-2013	B-/Stable/--
16-Sep-2010	B/Stable/--

### Venoco Inc.

Ben B Tsocanos, New York (1) 212-438-5014; Christine Besset, Dallas 214-765-5865

- US\$500 million 8.875% senior notes due Feb. 15, 2019
- US\$150 million 11.50% senior notes due Dec. 31, 2017
- US\$315 million second-lien bank loan due June 30, 2017
- US\$75 million first-lien senior secured bank loan

On April 3, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and gas E&P company Venoco Inc. to 'SD' from 'CCC+'. The rating action followed the company's completion of a debt exchange of its senior unsecured notes. We view this exchange as equivalent to default as its senior unsecured notes realized a meaningful loss of principal.

On April 21, 2015, we raised our corporate credit rating on Venoco Inc. to 'CCC+' from 'SD'. The outlook is negative. The ratings were raised after our review of Venoco's credit profile in conjunction with the release of year-end 2014 financial results and the completion of the exchange of its senior unsecured notes.

**Table 68**

Venoco Inc.--Issuer Credit Rating History	
Date	To
22-Apr-2015	CCC+/Negative/--
03-Apr-2015	SD/NM/--
04-Nov-2014	CCC+/Negative/--
21-Aug-2014	B-/Watch Neg/--
29-Aug-2012	B-/Stable/--
18-Jan-2012	B/Watch Neg/--

**Table 68**

Venoco Inc.--Issuer Credit Rating History (cont.)	
Date	To
12-Dec-2008	B/Stable/--
27-Dec-2007	B/Positive/--
23-Apr-2007	B/Stable/--
06-Dec-2004	B-/Stable/--

### Xinergy Corp.

Gayle B Podurgiel, New York (1) 212-438-1706; Marie A Shmaruk, New York (1) 212-438-7816

- US\$200 million 9.25% senior secured notes due May 15, 2019

On April 6, 2015, S&P Global Ratings considered the U.S.-based coal producer Xinergy Corp. as a default after it filed a petition under Chapter 11 of the U.S. Bankruptcy Code.

On May 2, 2013, we withdrew the 'CCC' corporate credit rating and 'CCC-' senior secured debt rating on Xinergy at the company's request.

**Table 69**

Xinergy Corp.--Issuer Credit Rating History	
Date	To
02-May-2013	NR/--/--
25-Apr-2013	CCC/Negative/--
30-Jan-2013	CCC/Watch Neg/--
19-Oct-2012	CCC+/Watch Neg/--
30-Apr-2012	CCC+/Negative/--
24-Feb-2012	B-/Watch Neg/--
26-May-2011	B-/Stable/--

### RAAM Global Energy Co.

Michael Tsai, New York (212) 438-1084; Paul B Harvey, New York (1) 212-438-7696

- US\$250 million 12.50% senior secured notes due Oct. 1, 2015
- US\$200 million notes due Dec. 31, 2015

On April 7, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and gas E&P company RAAM Global Energy Co. to 'D' from 'CCC-'. The rating action was taken after the company elected to miss its \$14.75 million interest payment on its 12.5% senior secured notes due Oct. 1, 2015.

On May 7, 2015, we withdrew our ratings on RAAM Global, including the 'D' corporate credit rating and 'D' secured notes rating, at the company's request.

Earlier, on Feb. 9, 2015, we lowered the corporate credit and senior secured ratings on RAAM Global to 'CCC-' from 'CCC+'. The ratings reflected the challenges the company could face to refinance its \$250 million senior secured notes

due October 2015 due to the weak market conditions stemming from the depressed hydrocarbon prices.

**Table 70**

**RAAM Global Energy Co.--Issuer Credit Rating History**

Date	To
07-May-2015	NR/--/--
07-Apr-2015	D/--/--
09-Feb-2015	CCC-/Negative/--
31-Jul-2014	CCC+/Negative/--
31-Jul-2013	B-/Negative/--
31-Jul-2012	B-/Stable/--
08-May-2012	B-/Negative/--
06-Aug-2010	B-/Stable/--

**American Natural Resources Co.**

On Jan. 29, 2015, American Natural Resources Co. defaulted after it filed a petition under Chapter 11 of the U.S. Bankruptcy Code.

Earlier, on Aug. 15, 1989, S&P Global Ratings withdrew its ratings on the entity.

**Walter Energy Inc.**

Chiza B Vitta, Dallas (1) 214-765-5864; William R Ferara, New York (1) 212-438-1776

- US\$350 million 11.00% second-lien pay-in-kind toggle notes due April 1, 2020
- US\$500 million 9.875% senior unsecured notes due Dec. 15, 2020
- US\$970 million 9.50% senior secured notes due Oct. 15, 2019
- US\$450 million 8.50% senior unsecured notes due April 15, 2021
- US\$950 million term A bank loan due April 1, 2016
- US\$350 million revolver bank loan due Dec. 31, 2018
- US\$375 million revolving bank loan due April 1, 2016
- US\$175 million 3.75% sub notes convertible due May 1, 2024
- US\$320 million first-lien notes due Oct. 15, 2019
- US\$200 million first-lien notes due Oct. 15, 2019
- US\$1.4 billion term B bank loan due April 1, 2018

On April 17, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based metallurgical coal producer Walter Energy Inc. to 'D' from 'CCC+'. The downgrade followed the company's failure to pay approximately \$62 million in aggregate interest payments on its 9.5% senior secured notes due 2019 and its 8.5% senior notes due 2021.

On June 8, 2015, we raised the corporate credit rating on Walter Energy to 'CCC-' from 'D'. The outlook is negative. The upgrade followed the company's announcement that it will pay the interest it missed on the senior secured notes due 2019 and senior notes due 2021.

On June 23, 2015, we lowered the corporate credit rating on Walter Energy Inc. to 'D' from 'CCC-' after the company elected to miss approximately \$19 million in aggregate interest payments on its 9.88% senior notes due 2020.

**Table 71**

**Walter Energy Inc.--Issuer Credit Rating History**

Date	To
23-Sep-2015	NR/--/--
23-Jun-2015	D/--/--
08-Jun-2015	CCC-/Negative/--
17-Apr-2015	D/--/--
15-Aug-2014	CCC+/Negative/--
14-Aug-2014	SD/--/--
27-Jun-2014	CCC+/Negative/--
05-Sep-2013	B-/Negative/--
20-Jun-2013	B/Watch Neg/--
06-Jun-2013	B/Stable/--
06-Nov-2012	B+/Negative/--
05-Jul-2012	BB-/Negative/--
28-Feb-2012	BB-/Stable/--
04-Feb-2011	BB-/Positive/--
18-Nov-2010	BB-/Watch Dev/--
15-Sep-2008	BB-/Stable/--
10-Jun-2008	B+/Watch Pos/--
03-Oct-2005	B+/Stable/--
20-Jun-2005	BB-/Watch Neg/--
06-Mar-2003	BB/Stable/--

**Sabine Oil & Gas Corp.**

Aaron McLean, New York (1) 212-438-7211; Ben B Tsocanos, New York (1) 212-438-5014

- US\$500 million 7.50% senior unsecured notes due Sept. 15, 2020
- US\$350 million 9.75% senior notes due Feb. 15, 2017
- US\$1 billion 7.25% senior unsecured notes due June 15, 2019
- US\$1 billion revolver bank loan due Dec. 31, 2020
- US\$1.5 billion revolver bank loan due June 30, 2016

On April 22, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and gas E&P company Sabine Oil & Gas Corp. to 'D' from 'CCC'. The rating action followed the company's decision to not to pay approximately \$15.3 million in interest that was due on April 21, 2015, on its second-lien term loan.

Earlier, on March 17, 2015, we lowered the corporate credit rating on Sabine to 'CCC' from 'B-'. The rating action followed our assessment that the company may undergo capital restructuring over the next 12 months that could result in lower ratings on the company and its debt.

On July 15, 2015, we withdrew the ratings on Sabine, including the 'D' corporate credit rating and 'D' issue-level ratings on the company's first-lien credit facility, second-lien term loan, and unsecured notes. The action was taken as the entity defaulted more than 30 days prior, and we did not expect to raise the rating on the entity in the near term.



**Table 72**

**Sabine Oil & Gas Corp.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
15-Jul-2015	NR/--/--
22-Apr-2015	D/--/--
16-Mar-2015	CCC/Watch Neg/--
05-Mar-2015	B-/Watch Neg/--
02-Feb-2015	B/Negative/--
08-May-2014	B-/Watch Pos/--
28-Feb-2014	B-/Negative/--
11-Jun-2013	B+/Negative/--
28-Aug-2012	B+/Stable/--
18-Jul-2012	B+/Negative/--
02-Mar-2012	BB-/Negative/--
12-Dec-2008	BB-/Stable/--
19-May-2008	BB-/Positive/--
31-May-2007	BB-/Stable/--
31-Oct-2005	BB-/Negative/--
12-Sep-2005	BB-/Watch Neg/--
28-May-2004	BB-/Stable/--
27-Jan-2004	BB/Watch Neg/--
24-Sep-2003	BB/Stable/--
27-Dec-2000	BB/Positive/--
03-Aug-1999	BB-/Watch Pos/--
07-Dec-1998	BB-/Negative/--
24-Aug-1998	BB-/Stable/--
23-Sep-1997	BB-/Positive/--
09-Dec-1996	BB-/Stable/--
20-Jun-1996	B+/Positive/--
11-Jun-1993	B+/Stable/--
10-May-1993	B/Watch Pos/--
22-Dec-1992	B-/Watch Pos/--
27-Mar-1992	B-/Negative/--
12-Dec-1991	B-/Watch Pos/--
19-Jun-1991	B-/Watch Dev/--
06-Sep-1989	B+/Watch Neg/--
08-Aug-1988	B/Positive/--
07-Jul-1986	CCC+/Watch Pos/--
20-May-1986	B/--/--
24-Sep-1977	BB/--/--
15-Oct-1971	B/--/--
24-Jan-1964	BB/--/--

## Winsway Enterprises Holdings Ltd.

Jian Cheng, CFA, Hong Kong (852) 2533-3576; Ellen Y Li, Hong Kong (852) 2533 3527

- US\$500 million 8.50% notes due April 8, 2016

On April 28, 2015, S&P Global Ratings lowered its long-term corporate credit rating on China-based supplier of imported coking coal Winsway Enterprises Holdings Ltd. to 'SD' from 'CCC'. The downgrade followed after the company missed a scheduled interest payment of about US\$13.15 million due on its outstanding U.S. dollar notes. We did not expect Winsway to make the payment within the 30-day grace period as the potential capital restructuring is conditioned on equity financing, which we believed was not likely to get finalized during that time.

**Table 73**

Winsway Enterprises Holdings Ltd.--Issuer Credit Rating History	
Date	To
27-Apr-2015	SD/NM/--
28-Oct-2013	CCC/Negative/--
10-Oct-2013	SD/NM/--
21-Aug-2013	CC/Negative/--
04-Feb-2013	B/Negative/--
21-Jan-2013	B/Watch Neg/--
03-Sep-2012	B+/Negative/--
18-Jul-2012	B+/Watch Neg/--
28-Feb-2012	B+/Stable/--
02-Nov-2011	BB-/Watch Neg/--
23-Mar-2011	BB-/Stable/--

## Halcon Resources Corp.

Ben B Tsocanos, New York (1) 212-438-5014; Christine Besset, Dallas 214-765-5865

- US\$500 million 8.625% second priority notes due Feb. 1, 2020
- US\$1,500 million first guaranteed senior secured bank loan due Aug. 1, 2019
- US\$700 million 8.625% notes due Feb. 1, 2020
- US\$400 million 9.25% senior unsecured notes due Feb. 15, 2022
- US\$1.35 billion 8.875% senior notes due May 15, 2021
- US\$1.15 billion 9.75% senior notes due July 15, 2020
- US\$1.5 billion first-lien guaranteed senior secured revolving bank loan due Aug. 1, 2019
- US\$300 million 8.875% senior unsecured notes due May 15, 2021

On May 1, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and gas E&P company Halcon Resources Corp. to 'SD' from 'CCC+'. The downgrade followed the announcement by the company that it concluded an agreement with holders of portions of its senior unsecured notes to exchange the notes for common stock. We treat this exchange as distressed because the investors will receive stock valued at less than what was promised on the original securities.

On June 22, 2015, we raised our corporate credit rating on Halcon to 'B-' from 'SD'. The upgrade followed our

assessment that the low stock price and diminished market appetite will restrict the company from entering into additional debt-for-equity transactions that we could view as distressed exchanges.

On Aug. 28, 2015, we lowered our corporate credit rating on Halcon to 'SD' from 'B-'. The rating action was taken after Halcon's announcement that it reached an agreement with holders of portions of its senior unsecured notes to exchange the notes for new senior secured third-lien notes. This is viewed as a distressed exchange because noteholders agreed to receive approximately \$1 billion new secured notes, which is less than what was promised on approximately \$1.5 billion of existing unsecured notes.

On Dec. 22, 2015, Halcon completed its discounted debt exchange offer, in which a total of \$289.6 million in bonds from multiple classes were submitted under the exchange. Holders will receive about \$112.8 million in new 12% second-lien senior notes due 2022 in return.

**Table 74**

Halcon Resources Corp.--Issuer Credit Rating History	
Date	To
28-Aug-2015	SD/NM/--
22-Jun-2015	B-/Negative/--
01-May-2015	SD/NM/--
10-Apr-2015	CCC+/Negative/--
16-Jan-2015	B/Negative/--
07-Dec-2012	B/Stable/--
22-Oct-2012	B-/Watch Pos/--
25-Jun-2012	B-/Positive/--

## Magnetation LLC

Ryan Gilmore, New York; Chiza B Vitta, Dallas (1) 214-765-5864

- US\$425 million 11.00% senior secured notes due May 15, 2018
- US\$65 million first guaranteed senior secured revolving loan due Feb. 13, 2018

On May 6, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based Magnetation LLC to 'D' from 'B-' following the company's filing of a petition under Chapter 11 of the U.S. Bankruptcy Code. The iron ore concentrate and pellet producer intends to work with creditors to restructure its balance sheet. In addition, the company entered into an agreement with certain noteholders on a \$135 million debtor in possession secured credit facility, which it expects will be sufficient to support operations during the restructuring process.

On July 23, 2015, we withdrew the ratings on the company.

**Table 75**

Magnetation LLC--Issuer Credit Rating History	
Date	To
23-Jul-2015	NR/--/--
06-May-2015	D/--/--
07-May-2013	B-/Stable/--

## Patriot Coal Corp.

Chiza B Vitta, Dallas (1) 214-765-5864; William R Ferara, New York (1) 212-438-1776

- US\$250 million exit term bank loan due Dec. 15, 2018
- US\$250 million 8.25% senior notes due April 30, 2018
- US\$262.50 million 15.00% second-lien notes due Dec. 15, 2023
- US \$201 million first-lien guaranteed senior secured letter of credit due Dec. 18, 2018
- US\$95 million first guaranteed senior secured asset-based revolving loan due Dec. 18, 2018

On May 14, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based coal producer Patriot Coal Corp. to 'D' from 'B-' after the company filed voluntary petitions for restructuring under Chapter 11 of the U.S. Bankruptcy Code while it explores strategic alternatives. The company has slightly more than \$790 million of debt outstanding (including letters of credit) and is seeking court approval for a committed \$100 million debtor-in-possession (DIP) financing.

On Oct. 8, 2015, Patriot Coal won confirmation of its Chapter 11 debt repayment plan, which would allow the company to find new owners for its mines. Eleven days later, a U.S. bankruptcy court approved Patriot Coal Corp.'s Chapter 11 reorganization plan.

On Nov. 7, 2015, Blackhawk Mining LLC purchased six of Patriot Coal's coal mining complexes.

**Table 76**

### Patriot Coal Corp.--Issuer Credit Rating History

Date	To
16-Jul-2015	NR/--/--
14-May-2015	D/--/--
14-Jan-2015	B-/Negative/--
20-Dec-2013	B/Stable/--
01-Oct-2012	NR/--/--
10-Jul-2012	D/--/--
23-May-2012	CCC/Watch Neg/--
16-May-2012	B-/Watch Neg/--
10-Feb-2012	B/Watch Neg/--
23-Jan-2012	B+/Watch Neg/--
05-May-2011	B+/Negative/--
06-Dec-2010	B+/Watch Neg/--
26-Apr-2010	B+/Stable/--

## Colt Defense LLC

Chris Mooney, CFA, New York (1) 212-438-4240; Greg T Maddock, New York (1) 212-438-7205

- US\$70 million first guaranteed senior secured PIK term loan due Aug. 15, 2018
- US\$250 million 8.75% senior notes due Nov. 15, 2017

On May 19, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based gun maker Colt Defense LLC to 'D' from 'CC'. The downgrade followed the company's announcement that it failed to make an interest payment due

May 15, 2015.

On June 23, 2015, we discontinued all of the ratings, including the 'D' corporate credit rating, on Colt Defense following Chapter 11 bankruptcy proceedings.

**Table 77**

Colt Defense LLC--Issuer Credit Rating History	
Date	To
23-Jun-2015	NR/--/--
19-May-2015	D/--/--
16-Apr-2015	CC/Watch Neg/--
11-Feb-2015	CCC-/Negative/--
18-Nov-2014	CCC/Developing/--
13-Nov-2014	CCC-/Watch Neg/--
19-Sep-2014	CCC/Negative/--
17-Jul-2013	CCC+/Negative/--
24-May-2012	CCC+/Stable/--
08-May-2012	B-/Watch Neg/--
14-Feb-2011	B-/Stable/--
16-Nov-2010	B/Watch Neg/--
02-Apr-2010	B+/Negative/--
04-Sep-2008	B+/Stable/--
01-Aug-2007	B/Stable/--

### Far-Eastern Shipping Co. PLC

Juliana C Gallo, London (44) 20-7176-3612; Varvara Nikanorava, London (49) 69-33-999-135

- US\$300 million 8.75% notes due May 2, 2020
- US\$500 million 8.00% notes due May 2, 2018
- RUBpyo 5 billion senior unsecured notes due Feb. 27, 2018
- RUBpyo 5 billion senior unsecured notes due Nov. 28, 2017

On May 19, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Russian integrated logistics, rail, and port operator Far-Eastern Shipping Co. PLC (FESCO) to 'SD' from 'CC'. We lowered our corporate credit rating on FESCO following its cash tender offer of its senior secured notes. We view these exchanges as tantamount to default as investors received lesser amount than they were promised under the original securities. We understand that the cash tender offer was funded by cash and a combination of ruble- and U.S. dollar-denominated debt amounting to a combined total of about \$144 million.

On June 23, 2015, we raised our long-term corporate credit rating on FESCO to 'B-' from 'SD'. The upgrade follows the completion of a voluntary cash buyback transaction of FESCO's outstanding senior secured notes due in 2018 and 2020 and its 2017 Russian ruble bonds.

**Table 78****Far-Eastern Shipping Co. PLC--Issuer Credit Rating History**

Date	To
23-Jun-2015	B-/Stable/--
19-May-2015	SD/NM/--
02-Apr-2015	CC/Negative/--
12-Sep-2014	B/Negative/--
29-Apr-2014	B+/Negative/--
08-May-2013	BB-/Stable/--

**Tunica-Biloxi Gaming Authority**

Stephen Pagano, New York 212-438-4484; Ariel Silverberg, New York (1) 212-438-1807; Melissa A Long, New York (1) 212-438-3886

- US\$150 million 9.00% senior notes due Nov. 15, 2015
- US\$150 million 9.00% senior notes due Nov. 15, 2015

On May 20, 2015, S&P Global Ratings lowered its issuer credit rating on U.S.-based gaming operator Tunica-Biloxi Gaming Authority (TBGA) to 'D' from 'CCC'. The downgrade followed TBGA's failure to make an interest payment of \$6.75 million to its unsecured senior noteholders on May 15, 2015.

On Nov. 20, 2015, we withdrew our ratings, including the 'D' issuer credit rating, on TBGA. TBGA did not repay the notes at maturity on Nov. 15, 2015, and we believe it remains in restructuring discussions with its noteholders.

**Table 79****Tunica-Biloxi Gaming Authority--Issuer Credit Rating History**

Date	To
20-Nov-2015	NR/--/--
20-May-2015	D/--/--
21-Aug-2014	CCC/Negative/--
28-Jan-2014	B-/Negative/--
01-Nov-2005	B+/Stable/--

**SandRidge Energy Inc.**

Ben B Tsocanos, New York (1) 212-438-5014; Aaron McLean, New York (1) 212-438-7211; Christine Besset, Dallas 214-765-5865

- US\$1.15 billion 7.50% senior notes due March 15, 2021
- US\$825 million 7.50% senior notes due Feb. 15, 2023
- US\$750 million 8.125% notes due Oct. 15, 2022
- US\$450 million 8.75% senior unsecured notes due Jan. 15, 2020
- US\$750 million 8.00% senior notes due June 1, 2018
- US\$365.5 million 9.875% senior unsecured notes due May 15, 2016
- US\$1 billion second-lien notes due Dec. 31, 2020
- US\$2 billion first guaranteed senior secured revolving loan due Oct. 22, 2019
- US\$1.25 billion 8.75% second-lien notes due June 1, 2020

- US\$158.4 million 8.13% senior secured notes due Oct. 16, 2022
- US\$116.6 million 7.5% senior secured notes due Feb. 16, 2023
- US\$1 billion 1L guaranteed secured revolving bank loan due March 2, 2020
- US\$300 million 7.00% convertible perpetual preferred stock hybrid
- US\$1.15 billion 7.50% senior notes due March 15, 2021
- US\$450 million 8.75% senior unsecured notes due Jan. 15, 2020
- US\$158.4 million 8.125% convertible due Dec. 31, 2022
- US\$116.6 million 7.50% convertible due Feb. 16, 2023
- US\$350 million term bank loan due April 1, 2014
- US\$350 million senior notes due Dec. 31, 2014

On May 20, 2015, we lowered our rating on SandRidge Energy Inc. to 'SD' from 'CCC+', after its agreement with holders of portions of its senior unsecured notes to exchange the notes for common stock. We view the transaction as a distressed exchange because investors received stock valued at less than that promised on the original securities. The exchange reduced the company's approximately \$3.4 billion of debt by \$50 million, marginally improving financial leverage.

On May 28, 2015, we raised our corporate credit rating on SandRidge to 'CCC+' from 'SD'. The action followed SandRidge's announcement of its proposed \$1 billion senior secured second-lien note offering to fund general corporate purposes, including repaying credit facility borrowings and higher capital spending. We view the offering as a signal that the company is focused on growth to improve financial leverage.

On Aug. 14, 2015, we lowered our corporate credit rating on SandRidge to 'SD' from 'CCC+'. The downgrade followed SandRidge's announcement that it entered into an agreement to repurchase a portion of its senior unsecured notes at a significant discount to par. It will repurchase \$250 million of aggregate principal amount of notes for \$94.5 million in cash.

On Aug. 20, 2015, we raised our corporate credit rating SandRidge to 'CCC+' from 'SD'. The rating actions followed SandRidge's issuance of new \$275 million of senior unsecured convertible notes due 2022 and 2023 to holders of a portion of senior unsecured notes due 2020, 2021, 2022, and 2023. The new notes convert mandatorily to common stock at a threshold of \$1.10 per share at a strike price equivalent to 40% of par.

On Oct. 8, 2015, S&P Global Ratings lowered its corporate credit rating on SandRidge to 'SD' from 'CCC+'. The downgrade follow SandRidge's announcement that it entered into an agreement to repurchase a portion of its senior unsecured notes at a significant discount to par. The company will repurchase \$100 million of aggregate principal amount of notes for \$30 million in cash. We view the repurchase as a distressed exchange because at the close of the transaction investors receive less than what was promised on the original securities.

**Table 80**

SandRidge Energy Inc.--Issuer Credit Rating History	
Date	To
08-Oct-2015	SD/NM/--
20-Aug-2015	CCC+/Negative/--
14-Aug-2015	SD/NM/--

**Table 80**

**SandRidge Energy Inc.--Issuer Credit Rating History (cont.)**

Date	To
28-May-2015	CCC+/Negative/--
20-May-2015	SD/NM/--
14-May-2015	CCC+/Watch Neg/--
16-Jan-2015	B/Negative/--
30-Sep-2011	B/Stable/--
11-Nov-2010	B+/Negative/--
09-Dec-2009	B+/Stable/--
02-Dec-2009	B/Watch Pos/--
19-Dec-2008	B/Stable/--
14-Mar-2008	B/Positive/--
08-Mar-2007	B/Stable/--

**Ceagro Agricola**

Flavia M Bedran, Sao Paulo (55) 11- 3039-9758; Luisa Vilhena, Sao Paulo (55) 11-3039-9727;

- US\$100 million 10.75% Proposed notes due May 16, 2016

On May 21, 2015, S&P Global Ratings lowered its rating on Brazil-based commodity trading company Ceagro Agricola to 'D' from 'B'. The downgrade reflected Ceagro's missed interest payment on its 2016 senior unsecured debt due May 16, 2015. The company initiated a restructuring process, which we did not believe would be completed during the cure period, resulting in a general default on its obligation.

**Table 81**

**Ceagro Agricola--Issuer Credit Rating History**

Date	To
21-May-2015	D/--/--
04-Oct-2010	B/Stable/--

**The State Administration of Railways Transport of Ukraine**

Alexander Griaznov, Moscow (7) 495-783-4109; Mikhail Davydov, Moscow +7 495 662 3492

- US\$500 million 9.50% loan participation notes (borrower: The State Administration of Railways Transport of Ukraine) bonds due May 21, 2018
- US\$120 million first guaranteed senior secured term loan due Dec. 10, 2021

On May 21, 2015, S&P Global Ratings lowered its long-term corporate credit rating on The State Administration of Railways Transport of Ukraine (Ukrainian Railways) to 'SD' from 'CC'. The downgrade followed the announcement made by Ukrainian Railways that it will not may principal payments on certain debt obligations and is planning to restructure them. The company will continue to make interest payments on its \$500 million loan participation notes and other obligations. We consider the company's proposed restructuring of the \$500 million loan participation notes as equivalent to default.



**Table 82****The State Administration of Railways Transport of Ukraine--Issuer Credit Rating History**

Date	To
21-May-2015	SD/NM/--
30-Apr-2015	CC/Negative/--
30-Dec-2014	CCC-/Negative/--
03-Mar-2014	CCC/Negative/--
07-Feb-2014	CCC+/Negative/--
14-Jan-2014	B-/Stable/--
08-Nov-2013	B-/Negative/--
21-May-2013	B/Negative/--
02-May-2013	B-/Watch Pos/--
14-Dec-2012	B-/Stable/--
21-May-2012	B-/Positive/--

**Midstates Petroleum Co. Inc.**

Michael Tsai, New York (212) 438-1084; Paul B Harvey, New York (1) 212-438-7696

- US\$700 million 9.25% senior unsecured notes due June 1, 2021
- US\$600 million 10.75% senior unsecured notes due Oct. 1, 2020
- US\$750 million first guaranteed senior secured asset-based revolving loan due May 31, 2018

On May 22, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and gas E&P company Midstates Petroleum Co. Inc. to 'SD' from 'B-'. We lowered the rating after Midstates' announcement that it agreed with holders of portions of its senior unsecured notes to exchange for third-lien secured notes. We view this transaction as a distressed exchange because at the close of the exchange unsecured debt, investors received less than what was originally promised on the senior unsecured notes.

On June 2, 2015, we raised our corporate credit rating on Midstates to 'B-' from 'SD'. The rating action reflected Midstates' participation in the highly cyclical oil and gas industry, small scale of reserves and production, producing assets primarily located in a single basin, and high debt leverage. We assess the company's liquidity as "adequate," as defined in our criteria, meaning we expect liquidity sources will exceed uses by at least 1.2x over the next 12 months.

On Oct. 2, 2015, S&P Global Ratings lowered its corporate credit rating on the company to 'CCC+', with a stable outlook, from 'B-'.

**Table 83****Midstates Petroleum Co. Inc.--Issuer Credit Rating History**

Date	To
02-Oct-2015	CCC+/Stable/--
02-Jun-2015	B-/Stable/--
22-May-2015	SD/NM/--
16-Jan-2015	B-/Negative/--
30-Sep-2013	B/Stable/--
04-Apr-2013	B/Positive/--

**Table 83****Midstates Petroleum Co. Inc.--Issuer Credit Rating History (cont.)**

Date	To
06-Sep-2012	B/Stable/--

**Lupatech S.A.**

Felipe Speranzini, Sao Paulo; Renata Lotfi, Sao Paulo (55) 11-3039-9724

- BRL320 million 6.50% unsecured notes due April 15, 2018
- US\$47.85 million senior unsecured bank loan due Oct. 8, 2021
- US\$47.85 million senior unsecured bank loan due Oct. 8, 2021

On May 26, 2015, S&P Global Ratings lowered its global scale corporate credit rating on Brazil-based oil and gas equipment provider Lupatech S.A. to 'D' from 'CCC'. We lowered the rating after it filed for judicial reorganization on May 25, 2015. Therefore, the company will operate under judicial oversight.

On Dec. 16, 2015, we raised the corporate credit rating on Lupatech to 'CCC-' from 'D' on global scale and placed the ratings on CreditWatch positive. The upgrade reflected the completion of Lupatech's judicial reorganization process after creditors approved its restructuring plan and the company complied with all legal requirements. As per the approved plan, the creditors will decide which of the plan's options they would prefer defining final capital structure of the company.

**Table 84****Lupatech S.A.--Issuer Credit Rating History**

Date	To
16-Dec-2015	CCC-/Watch Pos/--
26-May-2015	D/--/--
11-Dec-2014	CCC/Stable/--
02-Oct-2014	CCC-/Watch Pos/--
11-Apr-2013	D/NM/--
23-Apr-2012	SD/NM/--
11-Oct-2011	B-/Negative/--
10-Dec-2010	B-/Stable/--
03-Sep-2010	B+/Watch Neg/--
05-Mar-2010	B+/Negative/--
13-Nov-2009	BB-/Watch Neg/--
15-Jul-2009	BB-/Negative/--
21-Jun-2007	BB-/Stable/--

**Warren Resources Inc.**

Daniel S Krauss, CFA, New York (1) 212-438-2641; Brian Garcia, CFA, Boston (1) 617-530-8315

- US\$300 million 9.00% senior notes due Aug. 1, 2022
- US\$750 million first guaranteed senior secured revolving loan due Aug. 11, 2019
- US\$200 million notes due Dec. 31, 2021

On May 27, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based E&P company Warren Resources Inc. to 'SD' from 'CCC+'. The downgrade followed the completion of Warren's exchange of about \$70 million of its senior unsecured notes for \$47 million of first-lien term loans. We view the transaction as a distressed exchange as investors received 65% of par value, less than they were promised on the original securities.

Earlier, on April 22, 2015, we lowered the corporate credit rating on Warren Resources to 'CCC+' from 'B-'. The rating action reflected our reduced oil and natural gas price assumptions, which we expected would likely lead to much weaker earnings and credit measures for Warren in 2015 and 2016. The ratings on Warren reflected our view of the company's "vulnerable" business risk and "highly leveraged" financial risk.

**Table 85**

**Warren Resources Inc.--Issuer Credit Rating History**

Date	To
27-May-2015	SD/NM/--
22-Apr-2015	CCC+/Negative/--
16-Jan-2015	B-/Stable/--
24-Jul-2014	B/Stable/--
29-Jan-2014	NR/--/--
31-May-2013	B-/Stable/--

**Molycorp Inc.**

Ryan Gilmore, New York (212) 438-0602; Chiza B Vitta, Dallas (1) 214-765-5864;

- US\$172.5 million 5.50% senior unsecured notes convertible due Feb. 1, 2018
- US\$650 million 10.00% notes due June 1, 2020
- US\$414 million 6.00% senior notes convertible due Sept. 1, 2017
- US\$230 million 3.25% senior notes convertible due June 15, 2016
- US\$134.83 million first guaranteed senior secured pay-in-kind term loan due Sept. 11, 2019
- US\$50.16 million first guaranteed senior secured pay-in-kind term loan due Sept. 11, 2019

On June 2, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based E&P company Molycorp Inc. to 'D' from 'CCC+'. We lowered our ratings on Molycorp after the company elected not to pay the \$32.5 million interest payment on its 10% senior secured notes due 2020. In our opinion, the company has insufficient liquidity to operate beyond the next few months as it works with creditors to restructure its balance sheet.

On July 16, 2015, we withdrew our ratings on Molycorp.

In July, the bankruptcy court gave approval to Molycorp's proposed DIP facility for \$135.4 million from its senior lender, Oaktree Management.

**Table 86**

**Molycorp Inc.--Issuer Credit Rating History**

Date	To
16-Jul-2015	NR/--/--
02-Jun-2015	D/--/--
10-Dec-2014	CCC+/Negative/--

**Table 86****Molycorp Inc.--Issuer Credit Rating History (cont.)**

Date	To
26-Nov-2014	SD/NM/--
04-Sep-2014	CCC/Watch Pos/--
16-Jul-2014	CCC/Negative/--
22-Aug-2012	CCC+/Developing/--
13-Aug-2012	CCC+/Watch Dev/--
05-Jul-2012	B/Stable/--

**Cimento Tupi S.A.**

Felipe Speranzini, Sao Paulo (55) 11-3039-9751; Renata Lotfi, Sao Paulo (55) 11-3039-9724

- US\$150 million 9.75% notes due May 11, 2018

On June 11, 2015, S&P Global Ratings lowered its global scale corporate and issue-level ratings on Brazilian cement producer Cimento Tupi S.A. to 'D' from 'CC'. The downgrade followed Cimento Tupi's June 10, 2015, announcement that it can't pay the interest of approximately \$9 million after the end of the 30-day cure period established by the notes, originally due on May 11, 2015.

Earlier, on May 11, 2015, we lowered the global scale rating on Cimento Tupi to 'CC' from 'CCC' and placed the ratings on CreditWatch with negative implications. The rating action reflected Cimento Tupi's missed \$9 million interest payment on its 2018 notes due May 11, 2015. The notes establish a 30-day cure period for the payment. The negative CreditWatch listing reflected the residual uncertainty or risk that Cimento Tupi won't make the interest payment within the cure period.

On March 27, 2015, we lowered the global scale corporate credit and issue-level ratings on Cimento Tupi to 'CCC' from 'B-', and the outlook remained negative. The rating action reflected the company's heavy dependence on positive developments, such as refinancing or assets sales, to withstand interest burden and debt maturities for the next 12 months. The negative outlook reflected the greater liquidity pressure, while we expect the company's cash flow generation to drop amid a weak economy and weaker Brazilian real during 2015.

**Table 87****Cimento Tupi S.A.--Issuer Credit Rating History**

Date	To
11-Jun-2015	D/--/--
11-May-2015	CC/Watch Neg/--
27-Mar-2015	CCC/Negative/--
15-Jan-2015	B-/Negative/--
14-Oct-2014	B/Negative/--
28-Feb-2014	B/Stable/--
20-Jun-2013	B/Positive/--
11-Apr-2011	B/Stable/--

## Project Porsche Holdings Corp.

Tuan Duong, New York (212) 438-5327; David T Tsui, CFA, CPA, New York (1) 212-438-2138

On June 15, 2015, S&P Global Ratings lowered its corporate credit rating on Project Porsche Holdings Corp., a U.S.-based online education curriculum and assessments provider to the U.S. and U.K. adult and K-12 education markets, to 'SD' from 'CC'. The downgrade followed Project Porsche's completion of its debt exchange transaction. The company exchanged its \$140 million second-lien term for common stock of the company. In addition, the company received a \$35 million capital infusion from its existing second-lien lenders. As a result of the recapitalization, second-lien lenders own substantially all of the equity in the company. We view the exchange transaction as tantamount to a default, in accordance with our criteria, because second-lien lenders received less principal and interest than the securities originally promised.

On June 17, 2015, we raised our corporate credit rating on Project Porsche to 'B' from 'SD', reflecting the company's reduced pro forma leverage and improved liquidity position and covenant headroom after the recapitalization.

On June 19, 2015, we affirmed the 'B' corporate rating on the company with a negative outlook. We then withdrew the ratings at the company's request.

**Table 88**

### Project Porsche Holdings Corp.--Issuer Credit Rating History

Date	To
19-Jun-2015	NR/--/--
17-Jun-2015	B/Negative/--
15-Jun-2015	SD/NM/--
21-Apr-2015	CC/Negative/--
09-Feb-2015	CCC+/Negative/--
07-May-2014	B/Stable/--

## American Energy - Woodford LLC

Carin Dehne-Kiley, CFA, New York (1) 212-438-1092; Stephen Scovotti, New York (1) 212-438-5882

- US\$350 million 9.00% notes due Sept. 15, 2022

On June 25, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and gas E&P company American Energy – Woodford LLC (AEW) to 'SD' from 'CC'. At the same time, we removed all ratings from CreditWatch, where we placed them with negative implications on May 27, 2015. The downgrade followed AEW's announcement that it completed its previously announced debt-for-debt exchange. Holders of 97% of the company's \$350 million 9% unsecured notes due 2022, equating to approximately \$339.7 million of aggregate principal, received \$237.6 million in aggregate principal of new 12% second-lien notes due 2020. Because the holders of the unsecured notes received less than par, we view the transaction as a distressed exchange. At the same time, AEW received \$100 million in equity contributions from its financial sponsors (Energy & Minerals Group, management, and certain affiliates of management) and entered into a new revolving credit facility with a borrowing base of \$140 million.

On June 26, 2015, we raised the corporate credit rating on AEW to 'CCC+' from 'SD', reflecting the company's

improved leverage and liquidity following its June 24, 2015, debt-for-debt exchange, incremental equity infusion, and increased borrowing base. Nevertheless, leverage is still at levels we view as unsustainable, and we believe the company will need to raise additional capital by the end of 2016 to fund its planned capital spending. The positive outlook reflects our expectation that credit measures will improve and liquidity will remain adequate over the next 12 months, as the company ramps up drilling and production.

**Table 89**

**American Energy - Woodford LLC--Issuer Credit Rating History**

Date	To
26-Jun-2015	CCC+/Positive/--
25-Jun-2015	SD/NM/--
27-May-2015	CC/Watch Neg/--
05-May-2015	CCC+/Negative/--
04-Sep-2014	B-/Stable/--

**Piraeus Bank S.A.**

Mirko Sanna (39)-02-7211-275

- €3,100 million floating rate senior unsecured notes due Aug. 7, 2015
- €1,750 million floating rate senior unsecured notes due July 30, 2015
- €4,500 million floating rate senior unsecured notes due July 7, 2015
- €750 million floating rate secured notes due Dec. 27, 2016
- €1,250 million floating rate secured notes due Feb. 9, 2017
- €2,700 million term first-lien senior secured bank loan due Sept. 26, 2018
- €500 million 5.00% medium-term notes due March 27, 2017
- €400 million sub medium-term notes series 21 due July 20, 2016
- €60 million formula based medium-term notes series 20 due Oct. 20, 2014
- €200 million floating rate subordinate bonds due Oct. 27, 2034
- €200 million perpetual callable current amount €19.3 hybrid series A

On June 30, 2015, we lowered the long-term counterparty credit rating on Piraeus Bank S.A. to 'SD' from 'CCC'. The downgrades followed the measures introduced by the Greek government on June 29. Specifically, these include limits to deposit withdrawals, the closure of bank branches for a full working week, and the prohibition of money transfers out of Greece unless authorized by the Greek Ministry of Finance. The rating actions reflect our opinion that private individuals' lack of access to their deposits on a timely and in-full basis, and the constraints to their ability to transfer funds, constitute a selective default under our criteria. The downgrade of all outstanding senior unsecured notes to 'CCC-' reflected our opinion that it was inevitable that Greek banks would default within six months in the absence of support from the EU authorities, which S&P Global Ratings did not anticipate would be forthcoming.

On Oct. 16, 2015, we lowered the long-term counterparty credit rating on Piraeus Bank to 'D' from 'SD'. The downgrade followed the launch of a tender offer to exchange securities from holders of its additional Tier 1 debt, Tier 2 debt, and senior debt instruments with either equity or cash. We view this transaction as distressed and tantamount to default.

On Dec. 4, 2015, S&P Global Ratings revised its long-term counterparty credit rating on Piraeus Bank to 'SD' from 'D'. The rating action followed the completion of a €4.93 billion capital raising plan. However, the rating represents the inability of the bank to completely fulfill its deposit obligations in a timely manner, due to the capital controls being imposed in Greece.

**Table 90**

**Piraeus Bank S.A.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
04-Dec-2015	SD/NM/--
16-Oct-2015	D/--/--
30-Jun-2015	SD/NM/--
12-Jun-2015	CCC/Negative/--
30-Jan-2015	CCC+/Watch Neg/--
14-May-2014	CCC+/Stable/--
15-Jun-2011	CCC/Negative/--
11-May-2011	B/Watch Neg/--
31-Mar-2011	B+/Watch Neg/--
03-Dec-2010	BB/Watch Neg/--
01-Oct-2010	BB/Negative/--
16-Jul-2010	BB/Watch Neg/--
27-Apr-2010	BB/Negative/--
16-Mar-2010	BBB/Negative/--
17-Dec-2009	BBB/Watch Neg/--
04-May-2009	BBB/Stable/--
19-Dec-2008	BBB+/Negative/--
07-Oct-2008	BBB+/Stable/--
12-Feb-2008	BBB+/Positive/--
14-Mar-2007	BBB+/Stable/--
02-Mar-2007	BBB+/Watch Pos/--
12-Jan-2007	BBB+/Watch Dev/--
10-Oct-2006	BBB+/Stable/--
01-Sep-2004	BBB/Positive/--
26-Jan-2001	BBB/Stable/--
17-Dec-1999	BBB-/Stable/--

**Eurobank Ergasias S.A.**

Regina Argenio (39)-02-72111-208

- €1,910 million floating rate senior unsecured notes due Sept. 22, 2015
- €1,650 million floating rate senior unsecured notes due Nov. 5, 2016
- €2,147 million floating rate senior unsecured notes due April 25, 2016
- €588.2 million floating rate senior unsecured notes due April 22, 2016
- €2,377 million floating rate senior unsecured notes due April 22, 2016
- €1,500 million floating rate senior unsecured notes due April 8, 2016
- €4,280 million floating rate senior unsecured notes due March 18, 2016

- €1,550 million floating rate senior unsecured notes due Sept. 4, 2015
- €2,300 million floating rate senior unsecured notes due Oct. 22, 2015
- €700 million floating rate secured notes due June 20, 2017
- €700 million floating rate secured notes due July 22, 2016
- €650 million floating rate secured notes due April 20, 2016
- €750 million sub callable medium-term notes due June 8, 2017
- €1,000 million term first-lien senior secured bank loan due Sept. 26, 2018
- €700 million term first-lien senior secured bank loan due Sept. 26, 2018
- €500 million 4.25% medium-term notes due June 26, 2018
- €30.47 million 9% senior secured notes due March 8, 2019
- €5 million 0% senior unsecured notes due Dec. 14, 2017
- €300 million 8.25% callable perpetual preferred shares hybrid series D
- US\$4.35 million senior unsecured notes due Nov. 13, 2017
- €35 million range accrual medium-term notes series 292 due Jan. 25, 2016
- €50 million medium-term notes series 257 due April 11, 2017
- €6 million senior unsecured notes due April 13, 2016
- €70 million equity linked notes series 223 due Dec. 15, 2016
- €70 million one coupon profit lock II medium-term notes series 178 due Dec. 15, 2017

On June 30, 2015, we lowered the long-term counterparty credit rating on Eurobank Ergasias S.A. to 'SD' from 'CCC'. The downgrades to 'SD' followed the measures introduced by the Greek government on June 29. Specifically, these include limits to deposit withdrawals, the closure of bank branches for a full working week, and the prohibition of money transfers out of Greece unless authorized by the Greek Ministry of Finance. The rating actions reflect our opinion that private individuals' lack of access to their deposits on a timely and in-full basis, and the constraints on their ability to transfer funds, constitute a selective default under our criteria. The downgrade of all outstanding senior unsecured notes to 'CCC-' reflected our opinion that it was inevitable that Greek banks would default within six months in the absence of support from the EU authorities, which S&P Global Ratings did not anticipate would be forthcoming.

On Nov. 4, 2015, we lowered the long-term counterparty credit rating on Eurobank to 'D' from 'SD'. The downgrade followed the launch of a tender offer to exchange securities from holders of its tier 1 debt, tier 2 debt, and senior debt instruments with equity. We view this transaction as distressed and tantamount to default.

On Nov. 26, 2015, S&P Global Ratings revised its long-term counterparty credit rating on Eurobank to 'SD' from 'D'. The rating action followed the completion of a €2,039 million capital raising plan. However, the rating represents the inability of the bank to completely fulfill its deposit obligations in a timely manner, due to the capital controls being imposed in Greece.

**Table 91**

Eurobank Ergasias S.A.--Issuer Credit Rating History	
Date	To
26-Nov-2015	SD/NM/--
04-Nov-2015	D/--/--
30-Jun-2015	SD/NM/--
12-Jun-2015	CCC/Negative/--
30-Jan-2015	CCC+/Watch Neg/--



**Table 91**

Eurobank Ergasias S.A.--Issuer Credit Rating History (cont.)	
Date	To
14-May-2014	CCC+/Stable/--
15-Jun-2011	CCC/Negative/--
11-May-2011	B/Watch Neg/--
31-Mar-2011	B+/Watch Neg/--
03-Dec-2010	BB/Watch Neg/--
27-Apr-2010	BB/Negative/--
16-Mar-2010	BBB/Negative/--
17-Dec-2009	BBB/Watch Neg/--
04-May-2009	BBB+/Negative/--
19-Dec-2008	A-/Negative/--
24-May-2005	A-/Stable/--
06-Apr-2004	BBB+/Positive/--
26-Jan-2001	BBB+/Stable/--
03-Apr-2000	BBB/Stable/--
17-Dec-1999	BBB-/Positive/--
25-Oct-1999	BBB-/Stable/--

### Sharp Corp.

Makiko Yoshimura, Tokyo (81) 3-4550-8368; Hiroki Shibata, Tokyo (81) 3-4550-8437

- JPY¥30 billion 1.604% bonds series 26 due Sept. 13, 2019
- JPY¥10 billion 2.068% bonds series 23 due March 19, 2019
- JPY¥20 billion 1.141% bonds series 25 due Sept. 16, 2016
- JPY¥180 billion term bank loan due March 31, 2016

On June 30, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Japan-based electronics company Sharp Corp. to 'SD'. Sharp issued preferred securities to its two main lender banks to repay borrowings from each. We regard this transaction as a de facto debt-for-equity swap, which we define as 'SD'. Earlier, we had placed the long-term corporate credit ratings on Sharp and Sharp International Finance on CreditWatch with negative implications on Feb. 4, 2015, following Sharp's announcement of a steep cut in forecast earnings for fiscal 2014 (ended March 31, 2015). Ordinarily, default ratings apply strictly to the legal entity involved; thus we did not lower the long- and short-term corporate ratings on the subsidiary to 'SD'.

On July 1, 2015, we raised the long-term corporate credit rating on Sharp Corp. to 'B-' from 'SD' following completion of the transaction, which resolved the situation that we define as 'SD'. The outlook is negative. The negative outlook reflects S&P Global Ratings view that Sharp's earnings and financial standing are unlikely to recover materially in the next six to 12 months or so amid heightened risk of volatility in the earnings of its LCD business.

On Nov. 4, 2015, we lowered the long-term corporate credit and debt ratings on Sharp to 'CCC+' from 'B-'. The rating action reflected the intense competition Sharp has been facing in its main liquid crystal display (LCD) business, hurting its profitability. We believe the prime reason for the decline in Sharp's competitiveness is its inability to generate funds

for development and investment.

**Table 92**

**Sharp Corp.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
04-Nov-2015	CCC+/Negative/--
01-Jul-2015	B-/Negative/--
30-Jun-2015	SD/NM/--
15-May-2015	CCC-/Watch Neg/--
03-Mar-2015	CCC+/Watch Neg/--
04-Feb-2015	B+/Watch Neg/--
16-Sep-2014	B+/Stable/--
17-May-2013	B+/Negative/--
05-Nov-2012	B+/Watch Neg/--
31-Aug-2012	BB+/Watch Neg/--
03-Aug-2012	BBB/Watch Neg/--
27-Jul-2012	BBB+/Watch Neg/--
03-Feb-2012	BBB+/Negative/--
11-May-2011	A-/Stable/--
07-May-2009	A/Negative/--
09-Feb-2009	A/Watch Neg/--
20-Nov-2002	A/Stable/--

**Alpha Bank A.E.**

Mirko Sanna (39)-02-7211-275

- €3,767 million floating medium-term senior unsecured notes due April 25, 2016
- €1,500 million floating medium-term senior unsecured notes due Nov. 30, 2015
- €950 million floating medium-term senior unsecured notes due Sept. 23, 2015
- €3,609.6 floating million senior unsecured notes due Aug. 27, 2015
- €250 million step-up medium-term secured notes due Jan. 23, 2016
- €500 million floating medium-term secured notes due Jan. 21, 2017
- €1,000 million step-up secured notes due April 24, 2017
- €1,000 million floating secured notes due July 24, 2017
- €1,000 million floating medium-term secured notes due Oct. 23, 2015
- €1,000 million term first-lien senior secured bank ln due Sept. 26, 2018
- €800 million term first-lien senior secured bank ln due Sept. 26, 2018
- €50 million medium-term senior unsecured notes due Nov. 28, 2032
- US\$3 million step-up medium-term senior unsecured notes due Aug. 21, 2024
- €500 million 3.375% medium-term notes series 280 due June 17, 2017
- €3.7 million medium-term senior unsecured notes due Dec. 18, 2028
- €85 million 2% medium-term senior unsecured notes due April 27, 2024
- €300 million 6% medium-term senior unsecured notes due May 20, 2017
- €1.55 million floating medium-term senior unsecured notes due Feb. 1, 2017
- €3 million 6.00% medium-term notes series 263 due July 29, 2020

- €2 million 6.00% medium-term notes series 255 due April 11, 2018
- €350 million sub callable medium-term notes series 127 due Feb. 1, 2017
- €200 million floating rate sub medium-term notes series 134 due March 8, 2017

On June 30, 2015, we lowered the long-term counterparty credit rating on Alpha Bank A.E. to 'SD' from 'CCC'. The downgrades to 'SD' followed the measures introduced by the Greek government on June 29. Specifically, these include limits to deposit withdrawals, the closure of bank branches for a full working week, and the prohibition of money transfers out of Greece unless authorized by the Greek Ministry of Finance. The rating actions reflect our opinion that private individuals' lack of access to their deposits on a timely and in-full basis, and the constraints to their ability to transfer funds, constitute a selective default under our criteria. The downgrade of all outstanding senior unsecured notes to 'CCC-' reflects our opinion that it was inevitable that Greek banks would default within six months in the absence of support from the EU authorities, which S&P Global Ratings did not anticipate would be forthcoming.

On Oct. 30, 2015, we lowered the long-term counterparty credit rating on Alpha Bank to 'D' from 'SD'. The downgrade followed the launch of a tender offer to exchange securities from holders of its additional tier 1 debt, tier 2 debt, and senior debt instruments with either cash or equity.

On Nov. 26, 2015, S&P Global Ratings revised its counterparty credit rating on Alpha Bank to 'SD' from 'D'. The rating action followed the completion of a €2,563 million capital raising plan. However, the rating represents the inability of the bank to completely fulfill its deposit obligations in a timely manner, due to the capital controls being imposed in Greece.

**Table 93**

**Alpha Bank A.E.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
26-Nov-2015	SD/NM/--
30-Oct-2015	D/--/--
30-Jun-2015	SD/NM/--
12-Jun-2015	CCC/Negative/--
30-Jan-2015	CCC+/Watch Neg/--
14-May-2014	CCC+/Stable/--
15-Jun-2011	CCC/Negative/--
11-May-2011	B/Watch Neg/--
31-Mar-2011	B+/Watch Neg/--
03-Dec-2010	BB/Watch Neg/--
27-Apr-2010	BB/Negative/--
16-Mar-2010	BBB/Negative/--
17-Dec-2009	BBB/Watch Neg/--
04-May-2009	BBB+/Negative/--
19-Dec-2008	BBB+/Stable/--
07-Oct-2008	A-/Negative/--
12-Feb-2008	A-/Stable/--
10-Oct-2006	BBB+/Positive/--
09-Dec-2003	BBB+/Stable/--

**Table 93**

Alpha Bank A.E.--Issuer Credit Rating History (cont.)	
Date	To
10-Jul-2002	BBB+/Negative/--
03-Apr-2000	BBB+/Stable/--
17-Dec-1999	BBB/Positive/--
19-Dec-1997	BBB-/Stable/--

**National Bank of Greece S.A.**

- €4,265.6 million 7.98% senior unsecured notes due March 26, 2016
- €1,900.00 million 8.05% senior unsecured notes due Nov. 26, 2015
- €4,100 million 8.07% senior unsecured notes due Oct. 15, 2015
- €4,500 million 11.99% senior unsecured notes due May 3, 2016
- €1,500 million 2.08% secured notes due Dec. 24, 2018
- €1,500 million 2.08% secured notes due June 24, 2019
- €1,500 million 2.38% secured notes due June 24, 2020
- €1,500 million 2.48% secured notes due June 24, 2021
- €1,500 million 2.48% secured notes due Oct. 7, 2016
- €500 million term first-lien senior secured bank In due Sept. 26, 2018
- €1,040 million term first-lien senior secured bank In due Sept. 26, 2018
- €750 million 4.375% senior unsecured notes due April 30, 2019
- €450 million step up med-term notes series 7 due Aug. 3, 2020
- GBP375 million variable sub bonds due Nov. 8, 2037
- GBP17.058 million fixed/floating rate callable perpetual non-cum non-voting preferred stock hybrid series E due Nov. 29, 2049
- EUR€36.993 million variable rate FX/collared floating hybrid non-cum non-voting perpetual callable series D
- US\$38.975 million FX/capped floating hybrid non-cum non-voting perpetual callable series C
- €39.769 million variable rate FX/capped floating hybrid non-cum non-voting perpetual callable series B
- €58.274 million step-up non-voting non-cum hybrid callable perpetual series A

On June 30, 2015, S&P Global Ratings lowered its long-term counterparty credit rating on National Bank of Greece S.A. (NBG) to 'SD' from 'CCC'. The downgrades followed the measures introduced by the Greek government on June 29. Specifically, these include limits to deposit withdrawals, the closure of bank branches for a full working week, and the prohibition of money transfers out of Greece unless authorized by the Greek Ministry of Finance. The rating actions reflect our opinion that private individuals' lack of access to their deposits on a timely and in-full basis, and the constraints to their ability to transfer funds, constitute a selective default under our criteria. The downgrade of all outstanding senior unsecured notes to 'CCC-' reflected our opinion that it was inevitable that Greek banks would default within six months in the absence of support from the EU authorities, which S&P Global Ratings did not anticipate would be forthcoming.

On Nov. 4, 2015, we lowered our long-term counterparty credit rating on NBG to 'D' from 'SD'. The downgrade followed NBG's launch on Nov. 2 of a tender offer to exchange securities from holders of its tier 1 debt, tier 2 debt, and senior debt instruments with equity. This constitutes a distressed exchange under our criteria because it implies that

investors will receive less value than the promise of the original securities.

On Dec. 11, 2015, we revised the counterparty credit rating on National Bank of Greece to 'SD' from 'D'. The rating action follows NBG's completion of its €4.48 billion capital raising plan.

**Table 94**

National Bank of Greece S.A.--Issuer Credit Rating History	
Date	To
11-Dec-2015	SD/NM/--
04-Nov-2015	D/--/--
30-Jun-2015	SD/NM/--
12-Jun-2015	CCC/Negative/--
30-Jan-2015	CCC+/Watch Neg/--
14-May-2014	CCC+/Stable/--
15-Jun-2011	CCC/Negative/--
11-May-2011	B/Watch Neg/--
31-Mar-2011	B+/Watch Neg/--
03-Dec-2010	BB+/Watch Neg/--
27-Apr-2010	BB+/Negative/--
16-Mar-2010	BBB+/Negative/--
17-Dec-2009	BBB+/Watch Neg/--
04-May-2009	BBB+/Negative/--
03-Apr-2006	BBB+/Stable/--
27-Feb-2006	BBB+/Positive/--
03-Apr-2000	BBB+/Stable/--
17-Dec-1999	BBB/Positive/--
17-Sep-1997	BBB-/Stable/--

## **Ferrexpo PLC**

Elad Jelasko, CPA, London (44) 20-7176-7013; Simon Redmond, London (44) 20-7176-3683

- US\$420 million first guaranteed senior secured revolving bank loan due July 31, 2016
- US\$350 million first guaranteed senior secured revolving bank loan due Aug. 8, 2018
- US\$285.67 million 7.875% guaranteed bonds due April 7, 2016
- US\$347 million 10.375% notes due April 7, 2019

On July 6, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Ukraine-based iron ore producer Ferrexpo PLC to 'SD' from 'CCC'. The downgrade followed Ferrexpo's recent announcement that about 90% of the noteholders voted in favor of exchanging the outstanding \$286 million senior unsecured notes due 2016 for new senior unsecured notes, which we view, as per our criteria, as a distressed exchange.

On July 13, 2015, we raised our long-term corporate credit rating on Ferrexpo to 'CCC+' from 'SD'. The upgrade followed Ferrexpo's completion of the exchange of its \$286 million senior unsecured notes due 2016 for a \$186 million tap issuance on its senior unsecured notes due 2019. The rating reflected the improvement in Ferrexpo's liquidity following the exchange, which addressed the previous bulky maturities in April 2016.

Oct. 23, 2015, we lowered to 'CCC' from 'CCC+' the long-term corporate credit rating on Ferrexpo. The outlook is negative. The downgrade followed the deterioration in Ferrexpo's liquidity position since our last review in July 2015. This deterioration is explained by the company's inability to exercise the option to draw additional \$150 million under its pre-export finance facility.

**Table 95**

**Ferrexpo PLC--Issuer Credit Rating History**

Date	To
23-Oct-2015	CCC/Negative/--
13-Jul-2015	CCC+/Negative/--
06-Jul-2015	SD/NM/--
01-Jun-2015	CCC/Watch Neg/--
19-Jan-2015	CCC+/Negative/--
22-Aug-2014	CCC+/Stable/--
28-Feb-2014	CCC+/Negative/--
05-Nov-2013	B-/Negative/--
14-Dec-2012	B/Negative/--
19-Jul-2012	B+/Negative/--
30-Jul-2010	B+/Stable/--
23-Jul-2010	B/Watch Pos/--
30-Jun-2010	B/Stable/--
13-Jul-2015	C/--/--
06-Jul-2015	SD/--/--
28-Feb-2014	C/--/--
30-Jun-2010	B/--/--

**PT Berau Coal Energy Tbk.**

Vishal Kulkarni, CFA, Singapore (65) 6216-1047; Xavier Jean, Singapore (65) 6239-6346

- US\$500 million 7.25% notes due March 13, 2017
- US\$450 million 12.50% senior secured notes due Aug. 10, 2015

On July 9, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Indonesia-based coal mining and trading company PT Berau Coal Energy Tbk. to 'SD' from 'CCC-'. The rating action followed a moratorium by a Singapore court against legal and enforcement actions by holders of \$450 million notes due July 8, 2015, issued by Berau Capital, a subsidiary of Berau Energy.

On Sept. 11, 2015, we affirmed and withdrew the 'SD' long-term corporate credit rating and ASEAN regional scale rating on Berau Energy because of a lack of sufficient information to maintain the ratings.

**Table 96**

**PT Berau Coal Energy Tbk.--Issuer Credit Rating History**

Date	To
11-Sep-2015	NR/--/--
09-Jul-2015	SD/NM/--

**Table 96**

PT Berau Coal Energy Tbk.--Issuer Credit Rating History (cont.)	
Date	To
21-Jan-2015	CCC-/Watch Neg/--
07-Nov-2014	CCC+/Watch Neg/--
25-Sep-2014	B/Negative/--
24-Jun-2014	BB-/Watch Neg/--
26-Sep-2012	BB-/Negative/--
27-Feb-2012	BB-/Positive/--
11-Apr-2011	BB-/Stable/--
23-Nov-2010	B+/Watch Pos/--
22-Jun-2010	B+/Stable/--

**Lightstream Resources Ltd.**

Aniki Saha-Yannopoulos, CFA, PhD, Toronto 416-507-2579; Abidali Maredia, Toronto (1) 416-507-2544

- US\$900 million 8.625% notes due Feb. 1, 2020
- US\$394 million 9.88% notes due June 15, 2019
- US\$750 million 3.125% senior unsecured notes convertible due Feb. 8, 2016
- CAD1.150 billion revolving bank loan due June 2, 2017

On July 9, 2015, S&P Global Ratings lowered its corporate credit rating on Canada-based oil and gas E&P company Lightstream Resources Ltd. to 'SD' from 'B'. The downgrade followed Lightstream's announcement that it completed its previously announced debt-for-debt exchange. Holders of about 58% of the company's 8.625% \$800 million unsecured notes due 2020, equal to \$465 million of total principal, received \$395 million in total principal of new 9.875% second-lien notes due 2020. We view the transaction as a distressed exchange.

On July 10, 2015, S&P Global Ratings raised its long-term corporate credit rating on Lightstream Resources to 'B-' from 'SD'. The upgrade followed the improvement in the company's liquidity on the completion of the proposed debt-for-debt transaction of \$200 million additional second-lien notes.

On Oct. 16, 2015, S&P Global Ratings revised its outlook on Lightstream Resources to negative from stable. At the same time, S&P Global Ratings affirmed its 'B-' long-term corporate credit rating on the company. The outlook revision reflected our expectation that Lightstream's credit measures will deteriorate as the company will spend below maintenance capital (C\$170 million-C\$200 million annually) under S&P Global Ratings commodity price assumptions.

**Table 97**

Lightstream Resources Ltd.--Issuer Credit Rating History	
Date	To
16-Oct-2015	B-/Negative/--
10-Jul-2015	B-/Stable/--
09-Jul-2015	SD/NM/--
09-Jan-2015	B/Negative/--
01-Oct-2013	B+/Stable/--

**Table 97****Lightstream Resources Ltd.--Issuer Credit Rating History (cont.)**

Date	To
24-Aug-2012	B/Positive/--
18-Jan-2012	B/Stable/--

**Tonon Bioenergia S.A.**

Flavia M Bedran, Sao Paulo (55) 11- 3039-9758; Marcus Fernandes, Sao Paulo (55) 11-3039-9734

- US\$300 million 9.25% bonds due Jan. 24, 2020
- US\$73 million 10.50% notes series 1 due May 14, 2024
- US\$96 million 10.50% notes series 2 due May 14, 2024
- US\$32 million 10.50% notes series 3 due May 14, 2024
- US\$29 million 10.50% notes series 4 due May 14, 2024
- US\$300 million 7.25% senior unsecured notes due Jan. 24, 2020

On July 14, 2015, S&P Global Ratings lowered its corporate credit rating on Brazil-based sugarcane processing company Tonon Bioenergia S.A. to 'SD' from 'CC' on distressed notes exchange. The downgrade followed Tonon's announcement that more than 95% of its noteholders approved the proposal for exchanging the amount of the \$300 million corresponding to their share for new senior unsecured notes.

On July 17, 2015, we upgraded Tonon to 'CCC-' from 'SD' on the closure of the exchange offer to refinance its senior unsecured notes maturing in 2020.

On Sept. 1, 2015, we affirmed our 'CCC-' global scale corporate ratings on Tonon. The stable outlook reflected improved financial flexibility after the recent bond restructuring and new loan, which should enable the company to meet its immediate interest payments.

On Dec. 10, 2015, we lowered our corporate credit rating on Tonon to 'D' from 'CCC-'. The ratings reflected Tonon's announcement that it had filed for judicial recovery in order to restructure its capital structure to preserve its ongoing business.

**Table 98****Tonon Bioenergia S.A.--Issuer Credit Rating History**

Date	To
10-Dec-2015	D/--/--
01-Sep-2015	CCC-/Stable/--
17-Jul-2015	CCC-/Watch Pos/--
14-Jul-2015	SD/NM/--
19-May-2015	CC/Watch Neg/--
15-Apr-2015	CCC+/Negative/--
07-Jan-2013	B/Stable/--



## CORE Entertainment Inc.

Naveen Sarma, New York (1) 212-438-7833; Minesh Patel, CFA, New York (1) 212-438-6410

- US\$200 million first-lien term bank loan due June 21, 2017
- US\$160 million 13.50% second-lien term bank loan due June 21, 2018

On July 17, 2015, S&P Global Ratings removed its ratings on U.S.-based TV production studio CORE Entertainment Inc. from CreditWatch, where they were placed with negative implications on June 17, 2015

On June 11, 2015, CORE Entertainment failed to make the mandatory interest payment on its \$160 million second-lien 13.5% term loan on June 11, 2015. The 30-day grace period for the missed interest payment expired on July 14, 2015.

**Table 99**

### CORE Entertainment Inc.--Issuer Credit Rating History

Date	To
17-Jul-2015	SD/NM/--
17-Jun-2015	CCC-/Watch Neg/--
30-Apr-2015	CCC+/Negative/--
31-Mar-2014	B/Watch Neg/--
31-Jan-2013	B/Negative/--
18-Jan-2012	B/Stable/--

## Great Atlantic & Pacific Tea Co. Inc. (The)

Charles Pinson-Rose, New York (1) 212-438-4944; Kristina Koltunicki, New York (1) 212-438-7242

- US\$175 million 8.00% due Dec. 31, 2016
- US\$200 million 9.375% senior notes due Aug. 1, 2039
- US\$260 million 11.375% second lien senior secured notes due Aug. 1, 2015
- US\$270 million bank loan due March 13, 2017
- US\$355 million second-lien senior secured bridge bank loan due Dec. 3, 2015

On July 19, 2015, U.S.-based Grocer A&P, formally known as The Great Atlantic & Pacific Tea Co. Inc., and certain affiliates filed voluntary petition under Chapter 11 of the U.S. Bankruptcy Code. The company executed asset purchase agreements covering approximately 120 stores at a purchase price of approximately \$600 million, and is seeking U.S. Bankruptcy Court approval to enter into a \$100 million DIP financing agreement with Fortress Investment Group.

On Oct. 29, 2014, we withdrew our ratings on The Great Atlantic & Pacific Tea Co. Inc., including the 'CCC' corporate credit rating, at the company's request. At the time of the withdrawal, the outlook was developing.

**Table 100**

### Great Atlantic & Pacific Tea Co. Inc. (The)--Issuer Credit Rating History

Date	To
29-Oct-2014	NR/--/--
27-Mar-2014	CCC/Developing/--
28-Feb-2013	CCC/Negative/--
20-Mar-2012	B-/Negative/--

**Table 100**

Great Atlantic & Pacific Tea Co. Inc. (The)--Issuer Credit Rating History (cont.)	
Date	To
09-Feb-2011	NR/--/--
13-Dec-2010	D/--/--
28-Oct-2010	CC/Negative/--
27-Jul-2010	CCC/Negative/--
17-Jun-2010	CCC+/Developing/--
30-Jun-2009	B-/Stable/--
06-May-2009	B/Watch Neg/--
10-Dec-2007	B/Stable/--
17-Sep-2007	B-/Watch Pos/--
25-May-2007	B-/Watch Dev/--
28-Feb-2007	B-/Watch Neg/--
06-Apr-2006	B-/Stable/--
11-May-2005	B-/Developing/--
25-Oct-2004	B-/Negative/--
01-Aug-2003	B/Negative/--
29-Apr-2003	B+/Watch Neg/--
10-Jan-2003	B+/Negative/--
18-Oct-2002	BB-/Negative/--
22-Dec-2000	BB/Negative/--
07-Sep-2000	BB/Stable/--
26-Jun-2000	BBB-/Watch Neg/--
25-Feb-1998	BBB-/Negative/--
14-Apr-1997	BBB-/Stable/--
10-Apr-1997	BB+/Watch Pos/--
08-May-1995	BB+/Stable/--
13-Jan-1993	BBB-/Watch Neg/--
11-Jan-1993	BBB+/Stable/--
19-May-1992	BBB+/Negative/--
28-May-1987	A-/Watch Neg/--

### Hercules Offshore Inc.

Stephen Scovotti, New York (1) 212-438-5882; Carin Dehne-Kiley, CFA, New York (1) 212-438-1092

- US\$400 million 8.75% senior notes due July 15, 2021
- US\$300 million 7.50% senior notes due Oct. 1, 2021
- US\$200 million 10.25% senior notes due April 1, 2019
- US\$300 million 6.75% senior notes due April 1, 2022
- US\$300 million 10.50% senior secured notes due Oct. 15, 2017
- US\$300 million 7.125% senior notes due April 1, 2017
- US\$250 million 3.38% senior notes due June 1, 2038

On July 28, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and natural gas exploration services company Hercules Offshore Inc. to 'D' from 'CC'. The downgrade followed the company's missed interest payment on its 8.75% senior unsecured notes. It entered into a restructuring support agreement with the steering group of senior noteholders, which would convert Hercules' outstanding debt of about US\$1.2 billion into 96.9% of equity.

On Nov. 10, 2015, we raised our corporate credit rating on Hercules to 'CCC+' from 'D'. The outlook is negative. The upgrade reflected Hercules Offshore's new capital structure post reorganization. The company's reorganization converted approximately \$1.2 billion of unsecured debt to equity. In addition, the company recently issued a \$450 million first-lien term loan and plans to use proceeds to fund liquidity for ongoing operations and for the final \$200 million payment for the Hercules Highlander.

**Table 101**

**Hercules Offshore Inc.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
10-Nov-2015	CCC+/Negative/--
28-Jul-2015	D/--/--
18-Jun-2015	CC/Watch Neg/--
26-Feb-2015	CCC+/Negative/--
22-Dec-2014	B-/Stable/--
30-Oct-2014	B/Negative/--
02-Nov-2012	B/Stable/--
19-Jan-2012	B-/Stable/--
08-Jun-2010	B-/Negative/--
21-Jul-2009	B/Negative/--
08-May-2009	B+/Negative/--
05-Feb-2009	BB-/Negative/--
08-Jun-2007	BB-/Stable/--
19-Mar-2007	B/Watch Pos/--
27-Jun-2006	B/Stable/--
07-Jun-2005	B-/Stable/--

**Coyne International Enterprises Corp.**

On July 31, 2015, U.S.-based commercial laundry service company Coyne International Enterprises Corp. filed a voluntary petition under Chapter 11 of the U.S. Bankruptcy Code following a debt default. The company hopes to continue to operate through the sale closing with \$3.5 million in new-money DIP financing from NXT Capital, agent on Coyne's prepetition senior debt. The DIP also appears to roll up the roughly \$33.92 million in outstanding senior debt.

On July 11, 2001, we withdrew the ratings on Coyne International Enterprises.

**Table 102**

**Coyne International Enterprises Corp.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
11-Jul-2001	NR/--/--

**Table 102****Coyne International Enterprises Corp.--Issuer Credit Rating History (cont.)**

<b>Date</b>	<b>To</b>
30-Mar-2001	B/Negative/--
30-Aug-1999	B+/Negative/--
12-Jun-1998	B+/Stable/--

**Alpha Natural Resources Inc.**

Chiza B Vitta, Dallas (1) 214-765-5864; William R Ferara, New York (1) 212-438-1776

- US\$800 million 6.00% senior notes due June 1, 2019
- US\$700 million 6.25% senior notes due Dec. 31, 2021
- US\$625 million term B bank loan due May 22, 2020
- US\$500 million 9.75% notes due April 15, 2018
- US\$500 million 7.50% senior second-lien notes due Aug. 1, 2020
- US\$345 million 3.75% convertible due Dec. 15, 2017
- US\$300 million 4.875% convertible due Dec. 15, 2020
- US\$500 million 7.50% second-lien notes due Aug. 01, 2020
- US\$618.15 million revolving bank loan due Sept. 30, 2017
- US\$275.80 million revolving bank loan due June 30, 2016

On Aug. 3, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based coal producer Alpha Natural Resources Inc. to 'D' from 'CCC+'. The rating action followed Alpha's announcement that the company and certain of its subsidiaries have filed voluntary petitions for restructuring under Chapter 11 of the U.S. Bankruptcy Code.

**Table 103****Alpha Natural Resources Inc.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
03-Aug-2015	D/--/--
02-Jun-2015	CCC+/Negative/--
09-Dec-2013	B/Stable/--
10-May-2013	B+/Negative/--
27-Sep-2012	B+/Stable/--
19-Sep-2012	BB-/Watch Neg/--
29-Jun-2012	BB-/Negative/--
08-May-2012	BB-/Stable/--
06-Jun-2011	BB/Negative/--
31-Jan-2011	BB/Watch Neg/--
04-Aug-2009	BB/Stable/--
12-May-2009	BB-/Watch Pos/--
16-Feb-2007	BB-/Stable/--
01-Mar-2006	BB-/Positive/--
08-Jul-2004	BB-/Stable/--

## ASG Consolidated LLC

Kim K Logan, New York (212) 438-3606; Chris Johnson, CFA, New York (1) 212-438-1433

- US\$251 million senior discounted notes due Nov. 1, 2011
- US\$125 million 15.00% senior unsecured notes due May 15, 2017
- US\$125 million 15.00% senior unsecured notes due May 15, 2017
- US\$125 million 15.00% senior unsecured notes due May 15, 2017

On Aug. 11, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based consumer products company ASG Consolidated LLC to 'SD' from 'CC'. The rating action followed the company's transfer of its holding company payment-in-kind (PIK) notes due May 2017 at a substantial discount. The ratings on ASG reflect its highly leveraged financial profile (including our estimate of debt to EBITDA in excess of nine times as of June 30, 2015) and near-term potential for declining liquidity due to tightening financial and covenants and pending debt maturities.

On Aug. 18, 2015, we raised the corporate credit rating on ASG Consolidated to 'B-' from 'SD'. The upgrade reflected the improved sustainability of the company's capital structure following its recapitalization, which included a distressed exchange of its PIK notes, removal of all debt at entities above the company that had refinancing of all existing bank and term debt with \$800 million first and second lien debt. We believe this transaction will permit the company to generate much higher discretionary cash flows and slowly repay debt while maintaining more than a 15% covenant cushion.

**Table 104**

ASG Consolidated LLC--Issuer Credit Rating History	
Date	To
18-Aug-2015	B-/Stable/--
11-Aug-2015	SD/NM/--
18-Jun-2015	CC/Negative/--
12-Jan-2015	CCC-/Negative/--
26-Aug-2014	CCC+/Negative/--
05-Dec-2013	B-/Negative/--
24-Apr-2012	B-/Stable/--
05-Dec-2011	B/Watch Neg/--
22-Sep-2011	B/Negative/--
11-Jun-2009	B/Stable/--
24-Jul-2008	B+/Negative/--
12-Oct-2004	B+/Stable/--

## Black Elk Energy Offshore Operations LLC

Ben B Tsocanos, New York (1) 212-438-5014; Christine Besset, Dallas (1) 214-765-5865

- US\$150 million 13.75% senior secured notes due Dec. 1, 2015

On Aug. 11, 2015, three creditors of U.S.-based oil and natural gas producer Black Elk Energy Offshore Operations LLC filed an involuntary petition under Chapter 7 of the U.S. Bankruptcy Code ahead of the maturity of \$150 million in 13.75% senior secured notes due on Dec. 1, 2015. The company subsequently filed a voluntary petition under Chapter

11 of the U.S. Bankruptcy Code. Black Elk has been steadily slimming down its portfolio over several years with multiple asset sales. On Aug. 31, 2015, the company said it has reached a deal with certain holders of its senior secured notes authorizing consensual use of their cash collateral to fund operations while it makes its way through Chapter 11.

On Jan. 22, 2015, we withdrew our ratings on Black Elk Energy Offshore Services, including the 'CCC-' corporate credit rating and 'CCC' senior secured issue rating, at the company's request.

**Table 105**

**Black Elk Energy Offshore Operations LLC--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
22-Jan-2015	NR/--/--
16-Jan-2015	CCC-/Negative/--
13-Feb-2013	CCC+/Negative/--
21-Nov-2012	CCC+/Watch Neg/--
17-Sep-2012	CCC+/Negative/--
30-Sep-2011	B-/Stable/--
04-Nov-2010	B-/Negative/--

**Samson Resources Corp.**

Stephen Scovotti, New York (1) 212-438-5882; Carin Dehne-Kiley, CFA, New York (1) 212-438-1092

On Aug. 17, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and natural gas explorer and producer Samson Resources Corp. to 'D' from 'CCC-'. The ratings were lowered following Samson's announcement that it will not make the interest payment due on its senior notes on Aug. 17, 2015, and we believe it to be a general default under our criteria. Samson Resources will not make the interest payment due on its senior notes as it has entered into a restructuring support agreement with certain second-lien holders that hold 45.5% of the second-lien obligations.

On Oct. 6, 2015, we withdrew our ratings.

**Table 106**

**Samson Resources Corp.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
06-Oct-2015	NR/--/--
17-Aug-2015	D/--/--
01-Apr-2015	CCC-/Negative/--
17-Feb-2015	CCC+/Negative/--
19-Dec-2014	B-/Watch Neg/--
14-Nov-2014	B/Negative/--
24-Sep-2013	B/Stable/--
14-Sep-2012	B+/Negative/--
31-Jan-2012	B+/Positive/--

## **Wilton Holdings Inc.**

Beverly Correa, San Francisco 415-371-5055; Bea Y Chiem, San Francisco (1) 415-371-5070

On Aug. 24, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based food crafting and consumer products producer Wilton Holdings Inc. to 'SD' from 'CC'. The downgrade followed Wilton's launch of its capital structuring plan by exchanging its roughly \$514 million holding company PIK notes into preferred equity, which we view as junior in ranking and which will no longer have a final maturity date. This is viewed as a distressed exchange because there remains a possibility that investors will not receive their dues on time.

On Aug. 17, 2015, we lowered our corporate credit rating on Wilton Holdings to 'CC' from 'CCC+'. The rating action was taken after Wilton's announced offer to convert its holding company PIK notes to preferred equity, which is a more junior position but at the same 17% PIK interest rate as the current holding company notes, with no maturity on the preferred stock. We viewed this as a distressed exchange, which is equivalent to default. Performance of the issuer through the second quarter ended June 30 was slightly below our forecasts on account of continued foreign currency headwinds, timings shift of sales, and declining paper crafting industry, combined with underperformance in the European and Canadian markets.

On Aug. 25, 2015, we raised our corporate credit rating on Wilton Holdings to 'B-' from 'SD'. The outlook is negative. The rating action followed the completion of the distressed exchange and the amendment on Wilton's term loan that results in improved covenant cushion levels and greater operating flexibility. The amendment will provide lenders with additional covenant protection and will also limit draw-down in a simulated default scenario closer to 60% of the total asset-backed loan.

**Table 107**

<b>Wilton Holdings Inc.--Issuer Credit Rating History</b>	
<b>Date</b>	<b>To</b>
25-Aug-2015	B-/Negative/--
24-Aug-2015	SD/NM/--
17-Aug-2015	CC/Negative/--
10-Apr-2015	CCC+/Negative/--
23-Jun-2014	B-/Negative/--
14-Nov-2013	B-/Stable/--
28-Jun-2013	B/Negative/--
07-Aug-2012	B/Stable/--

## **SAExploration Holdings Inc.**

Aaron McLean, New York (1) 212-438-7211; Ben B Tsocanos, New York (1) 212-438-5014

- US\$150 million 10.00% notes due July 15, 2019

On Aug. 27, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oilfield services company SAExploration Holdings Inc. to 'SD' from 'B-'. The rating action followed SAExploration's announcement that it concluded an agreement with holders of a portion of its senior secured notes for common stock. This is viewed as a distressed exchange because investors will receive stock whose value will be less than what was promised on the

original securities.

On Sept. 10, 2015, S&P Global Ratings raised its corporate credit rating on SAExploration to 'B-' from 'SD'. The outlook is negative. The upgrade followed a review of SAExploration's credit profile in conjunction with the release of its midyear 2015 financial results. SAExploration completed a debt-for-equity exchange, and we believe the company is unlikely to enter into additional similar transactions because of its low stock price and diminished market appetite to give up secured assets.

**Table 108**

**SAExploration Holdings Inc.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
10-Sep-2015	B-/Negative/--
27-Aug-2015	SD/NM/--
17-Jun-2014	B-/Stable/--

**Univita Health Inc.**

David A Kaplan, CFA, New York (1) 212-438-5649; Tulip Lim, New York (1) 212-438-4061

- US\$20 million revolver bank loan due June 17, 2016
- US\$200 million term B bank loan due June 19, 2017

On Aug. 28, 2015, U.S.-based home health care service provider Univita Homecare Solutions LLC and 11 of the company's subsidiaries filed for bankruptcy under Chapter 7 of the U.S. Bankruptcy Code.

On June 9, 2014, S&P Global Ratings withdrew its ratings at the issuer's request.

**Table 109**

**Univita Health Inc.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
09-Jun-2014	NR/--/--
17-May-2013	B-/Negative/--
12-Aug-2011	B/Stable/--

**Investtradebank JSC**

Ekaterina Tolstova, Moscow (7) 495-783-41-18; Anastasia Turdyeva, Moscow (7) 495-783-40-91

- RUB2.5 billion 14.15% secured notes due Feb. 6, 2020

On Sept. 1, 2015, S&P Global Ratings lowered its long-term counterparty credit rating on Russian bank Investtradebank JSC to 'R' from 'B' and the Russia national scale ratings on Investtradebank to 'R' (regulatory supervision) from 'ruBBB+'. The rating action was taken after the CBR intervened and assigned the Deposit Insurance Agency (DIA) temporary manager of the bank to develop a plan for the bank's financial rehabilitation. The CBR has suspended the decision-making authority of the bank's shareholders and managers. In this context, the DIA has the power to authorize payment of some obligations and not others.

On Nov. 25, 2015, we affirmed our long-term counterparty credit and national scale ratings on Investtradebank at 'R'



(regulatory supervision). We then withdrew the ratings at the issuer's request.

**Table 110**

**Investtradebank JSC--Issuer Credit Rating History**

Date	To
25-Nov-2015	NR/--/--
01-Sep-2015	R/--/--
24-Feb-2015	B/Negative/--
03-Jun-2014	B+/Negative/--
14-Oct-2013	B+/Stable/--

**Goodrich Petroleum Corp.**

John W Rogers, New York (1) 212-438-1419; Stephen Scovotti, New York (1) 212-438-5882

- US 275 million 8.8% senior notes due March 15, 2019
- US\$219 million 5% convertible due Oct. 1, 2029
- US\$175 million 3.25% senior notes convertible due Dec. 1, 2026
- US\$166.3 million 5% senior notes convertible due Oct. 1, 2032
- US\$100 million 8% second-lien notes due March 15, 2018
- US\$600 million 8.875% first-lien guaranteed senior revolving bank loan due Feb. 24, 2017

On Sept. 2, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and natural gas producer Goodrich Petroleum Corp. to 'SD' from 'B-'. The ratings were lowered after Goodrich reached an agreement with holders of portions of its senior unsecured convertible notes worth \$55 million to exchange the notes for new senior unsecured convertible notes worth \$27.5 million. As per this transaction, the senior holders of debt will receive significantly less than promised. The company would end up cutting its debt by roughly \$83.2 million in its distressed debt exchange.

**Table 111**

**Goodrich Petroleum Corp.--Issuer Credit Rating History**

Date	To
02-Sep-2015	SD/NM/--
24-Oct-2014	B-/Negative/--
13-Nov-2012	B-/Stable/--
24-Feb-2011	B/Stable/--

**Quiksilver Inc.**

Peter C Deluca, New York (1) 212-438-1739; Diane M Shand, New York (1) 212-438-7860

- US\$280 million 7.88% senior secured notes due Aug. 1, 2018
- US\$225 million 10.00% senior unsecured notes due Aug. 1, 2020
- €200 million 8.88% senior unsecured notes due Dec. 15, 2017
- €60 million first-lien senior secured bank loan due Oct. 31, 2016

On Sept. 10, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based Quiksilver Inc. to 'D' from 'CCC+'. The downgrade followed Quiksilver's announcement that it filed a voluntary petition to implement a

prenegotiated restructuring of its debt obligations under Chapter 11 of the U.S. Bankruptcy Code. Execution issues in North America and foreign exchange headwinds overseas leading to declining cash flow and weaker credit metrics resulted in poor operating performance of the company over the past two years.

On Dec. 1, 2015, Quiksilver received bankruptcy court approval to begin polling creditors on a bankruptcy-exit plan that gives an increased recovery for unsecured creditors.

**Table 112**

**Quiksilver Inc.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
10-Sep-2015	D/--/--
19-Jun-2015	CCC+/Negative/--
14-Jul-2014	B-/Negative/--
10-Jul-2013	B-/Stable/--
16-Oct-2012	B-/Negative/--
29-Nov-2010	B/Stable/--
10-Aug-2010	B-/Watch Pos/--
23-Dec-2009	B-/Negative/--
17-Mar-2009	B-/Watch Dev/--
24-Nov-2008	B+/Negative/--
01-Apr-2008	BB-/Watch Neg/--
07-May-2007	BB-/Negative/--
12-Mar-2007	BB-/Watch Neg/--
30-Jun-2005	BB/Stable/--

**PJSC Commercial Bank PrivatBank**

Annette Ess, CFA, Frankfurt (49) 69-33-999-157; Anastasia Turdyeva, Moscow (7) 495-783-40-91; Natalia Yalovskaya, London (44) 20-7176-3407

- US\$150 million 5.80% subordinate notes due Feb. 9, 2016
- US\$220 million 11.00% secured notes due Feb. 9, 2021

On Sept. 23, 2015, S&P Global Ratings lowered its long-term counterparty credit rating on Ukrainian Bank PJSC Commercial Bank PrivatBank to 'SD' from 'CC'. The ratings were lowered after PrivatBank's signing of a supplemental loan agreement on Sept. 8, 2015, regarding US\$200 million bonds due September 2015. As part of the agreement, PrivatBank changed the interest rate to 10.25% from 9.375% on the bonds and extended the maturity date to Jan. 15, 2016, from Sept. 23, 2015. The extension is viewed as a distressed exchange, which is tantamount to a selective default, as per our criteria. Also, the investors will receive less than the full value of bonds as originally agreed.

On Sept. 28, 2015, S&P Global Ratings raised its long-term counterparty credit rating on PrivatBank to 'CC' from 'SD'. The ratings were raised after PrivatBank's creditors agreed to extend the maturity of its US\$200 million bonds due Sept. 23, 2015 to Jan. 15, 2016, and change the interest rate to 9.375% from 10.25% per year.

On Dec. 4, 2015, we lowered our ratings on PrivatBank to 'SD' from 'CC/C'. The downgrade followed PrivatBank's signing an agreement with its creditors on Nov. 13, 2015, to restructure two bonds--\$150 million of subordinated debt

with an original maturity in February 2016 and a \$200 million senior unsecured bond with an original maturity in September 2015. This is a distressed exchange offer and tantamount to a selective default as per our criteria.

On Dec. 7, 2015, we raised our long-term counterparty credit rating on PrivatBank to 'B-' from 'SD'. The outlook is negative. The rating action followed PrivatBank's completion of its debt restructuring. PrivatBank successfully restructured its debt, extending the maturity of its \$200 million senior unsecured bond to Jan. 23, 2018, and that of its \$150 subordinated bond to Feb. 9, 2021. The negative outlook on PrivatBank reflects our view that poor economic conditions and funding profile constraints for Ukrainian banks will continue to weigh on the bank's creditworthiness in the next 12 months.

**Table 113**

PJSC Commercial Bank PrivatBank--Issuer Credit Rating History	
Date	To
07-Dec-2015	B-/Negative/--
04-Dec-2015	SD/NM/--
28-Sep-2015	CC/Negative/--
23-Sep-2015	SD/NM/--
09-Jul-2015	CC/Negative/--
20-Apr-2015	CCC-/Negative/--
23-Dec-2014	CCC/Negative/--
12-Aug-2014	CCC/Stable/--
24-Feb-2014	CCC/Negative/--
30-Jan-2014	CCC+/Negative/--
30-Dec-2013	B-/Stable/--
16-Dec-2013	B-/Negative/--
12-Dec-2005	NR/--/--
25-Jan-2005	B-/Stable/--
02-Dec-2004	B-/Watch Neg/--
28-Oct-2003	B-/Stable/--

### **Edcon Holdings Ltd.**

Raam Ratnam, London +442071767462; Frank Siu, London +44 (0) 207 176 3670

- €425 million 13.38% senior notes due June 30, 2019
- €317 million 9.50% guaranteed bonds due March 1, 2018
- €300 million 9.50% notes due March 1, 2018
- €200 million 13.38% senior subordinate notes due June 30, 2019
- €241.3 million 13.38% senior subordinate notes due June 30, 2019
- €21.6 million 8.00% secured notes due June 30, 2019
- ZAR 1.01 billion 12.40% first-lien notes due April 4, 2016

On Sept. 25, 2015, S&P Global Ratings lowered its long-term corporate credit rating on South Africa-based non-food retailer Edcon Holdings Ltd. to 'SD' from 'CC'. The rating action was taken after the conclusion of Edcon's exchange offer for its €425 million 13.375% senior unsecured notes due 2019.

On July 2, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Edcon to 'CC' from 'CCC+'. The downgrade followed Edcon's announcement of a launch of an exchange offer for the €425 million 13.375% senior unsecured notes due 2019. The exchange is viewed as distressed because investors will receive significantly less value than promised.

**Table 114**

**Edcon Holdings Ltd.--Issuer Credit Rating History**

Date	To
25-Sep-2015	SD/NM/--
02-Jul-2015	CC/Negative/--
30-Sep-2014	CCC+/Stable/--
28-Jul-2010	B-/Stable/--
09-Sep-2009	B/Negative/--
30-Apr-2009	B/Stable/--
11-Jun-2008	B+/Negative/--
05-Jun-2007	B+/Stable/--

**Floworks International LLC**

Michael Maggi, CFA, New York (212) 438-7302; William R Ferara, New York (1) 212-438-1776

- US\$250 million 8.75% senior notes due Nov. 15, 2019

On Sept. 29, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based industrial metals distributor Floworks International LLC to 'SD' from 'B-'. The ratings were lowered following a below par value repayment of approximately \$29 million of Floworks' outstanding \$250 million senior secured notes due 2019, so investors received less than what was promised on the original securities, which is viewed as a distressed exchange under our criteria.

On Oct. 6, 2015, S&P Global Ratings raised its corporate credit rating on Floworks to 'CCC+' from 'SD'. The outlook is stable. The upgrade reflected S&P Global Ratings' assessment of the company being unlikely to enter into further distressed exchange transactions in the context of Flowork's negative covenants under its asset-based loan facility and current cash portion.

**Table 115**

**Floworks International LLC--Issuer Credit Rating History**

Date	To
06-Oct-2015	CCC+/Stable/--
29-Sep-2015	SD/NM/--
25-Oct-2013	B-/Stable/--
22-Oct-2012	B/Stable/--

**Dex Media Inc.**

Minesh Patel, CFA, New York (1) 212-438-6410; Thomas J Hartman, CFA, Chicago (1) 312-233-7057

- US\$300 million 12.00% notes due Jan. 29, 2017

On Oct. 1, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based yellow pages publisher Dex

Media Inc. to 'SD' from 'CCC+'. The ratings were lowered after the issuer failed to make the interest payment due on Sept. 30, 2015, on its subordinated notes due 2017. We downgraded the entity because we believed it wouldn't be able to make the interest payment within the stated grace period as the company has a huge and unsustainable debt burden.

**Table 116**

**Dex Media Inc.--Issuer Credit Rating History**

Date	To
01-Oct-2015	SD/NM/--
13-May-2014	CCC+/Negative/--
17-May-2013	B-/Negative/--
18-Mar-2013	D/--/--
29-Jan-2013	CCC/Negative/--
24-Aug-2012	CCC/Developing/--
30-Mar-2012	CCC/Negative/--
23-Mar-2012	SD/NM/--
15-Mar-2012	CC/Negative/--
16-Nov-2011	CCC+/Negative/--
19-Aug-2011	B-/Negative/--
01-Feb-2011	B/Negative/--
29-Jan-2010	B/Stable/--
15-May-2009	D/--/--
16-Apr-2009	CC/Negative/--
12-Feb-2009	CCC+/Negative/--
24-Oct-2008	B+/Negative/--
08-May-2008	B+/Stable/--
11-Feb-2008	BB-/Negative/--
07-Nov-2005	BB-/Stable/--
03-Oct-2005	BB-/Watch Neg/--
17-May-2004	BB-/Stable/--
03-Nov-2003	BB-/Negative/--

**MMM Holdings Inc.**

James Sung, New York (1) 212-438-2115; Deep Banerjee, New York (1) 212-438-5646

- US\$30 million first-lien revolver bank loan due Dec. 31, 2017
- US\$450 million first-lien term loan B bank loan due 2017

On Oct. 2, 2015, S&P Global Ratings lowered its counterparty credit and secured debt ratings on the leading medicare advantage insurer, MMM Holdings Inc., to 'D' from 'B-' and removed all ratings from CreditWatch, where we placed them with developing implications on June 5, 2015. The ratings were lowered following the issuer's inability to make its quarterly amortization payment on its first-lien term loan for third-quarter 2015. The issuer subsequently entered into a forbearance agreement with its lenders to negotiate a potential restructuring of the credit agreement effective until Oct. 30, 2015.

On Dec. 1, 2015, we raised the counterparty credit and secured debt ratings on MMM to 'B-' from 'D'. The outlook is negative. The upgrade reflected the amendments made to its credit agreement that resolve all current defaults. As per the new credit agreement, the company is no longer required to make mandatory quarterly principal amortization payments reducing the liquidity stress it faced initially by maintaining enough capital at its regulated entities to meet local regulatory requirements.

**Table 117**

**MMM Holdings Inc.--Issuer Credit Rating History**

Date	To
01-Dec-2015	B-/Negative/--
02-Oct-2015	D/--/--
05-Jun-2015	B-/Watch Dev/--
09-Oct-2012	B+/Stable/--

**American Apparel Inc.**

Peter C Deluca, New York (1) 212-438-1739; Mariola Borysiak, New York (1) 212-438-7839

- US\$200 million 13.00% senior secured notes due May 15, 2020
- US\$9.86 million 17.00% guaranteed unsecured bank In due April 15, 2021

On Oct. 5, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based American Apparel Inc. to 'D' from 'CCC-'. The ratings were lowered after the issuer announced that it filed a voluntary petition to implement a negotiated restructuring of its debt obligations under Chapter 11 of the U.S. Bankruptcy Code.

On Oct. 6, the issuer secured approval from the bankruptcy court to the \$90 million DIP facility enabling the company to access roughly \$70 million of the facility. The DIP is being provided by the company's existing lender as per the company's proposed reorganization plan, viewed to convert to an exit facility. The court approved the disclosure statements on Nov. 20.

**Table 118**

**American Apparel Inc.--Issuer Credit Rating History**

Date	To
05-Oct-2015	D/--/--
29-Aug-2014	CCC-/Negative/--
24-Feb-2014	CCC/Developing/--
20-Mar-2013	B-/Stable/--

**Affirmative Insurance Holdings Inc.**

Tom E Thun, New York (1) 212-438-7255; Polina Chernyak, New York (1) 212-438-7179

- US\$300 million 12.00% notes due Jan. 29, 2017

On Oct. 14, 2015, S&P Global Ratings considered Affirmative Insurance Holdings Inc. (AFF) as a default after the entity filed for debt restructuring under Chapter 11 of the U.S. Bankruptcy Code.

On Sept. 25, 2009, we lowered the counterparty credit rating on AFF to 'CCC+' from 'B-'. Subsequently, we withdrew

our ratings on AFF and its subsidiaries at management's request because they were no longer subject to surveillance by S&P Global Ratings.

**Table 119**

**Affirmative Insurance Holdings Inc.--Issuer Credit Rating History**

Local Currency	
Date	To
25-Sep-2009	NR/--/--
25-Sep-2009	CCC+/Negative/--
03-Nov-2008	B-/Negative/--
30-Nov-2007	B/Negative/--
11-Dec-2006	B/Stable/--

**Nota Bank**

Ekaterina Tolstova, Moscow (7) 495-783-41-18; Anastasia Turdyeva, Moscow (7) 495-783-40-91

- RUB2 billion 13.5% senior unsecured notes due April 1, 2016
- RUB1.5 billion 13.5% senior unsecured notes due Oct. 13, 2016
- RUB2 billion 14.5% senior unsecured notes due June 6, 2018

On Oct. 14, 2015, S&P Global Ratings lowered its long-term counterparty credit rating on Russia-based Nota Bank to 'R' (under regulatory supervision) from 'B'. The ratings were lowered after the CBR intervened and introduced a moratorium on all of Nota Bank's credit obligations. The regulatory risk from the decision by the CBR reflected the increasing financial stress that the bank has come under in recent months. The bank has failed to meet its financial obligations stemming from liquidity outflows.

On Nov. 30, 2015, we revised the long-term counterparty credit ratings on Nota Bank to 'D' from 'R'. The ratings were subsequently withdrawn due to lack of information. The rating action followed CBR's revocation of Nota Bank's banking license on Nov. 24, 2015. As per the process, the CBR will start settling Nota Bank's obligations to creditors in accordance with bankruptcy law.

**Table 120**

**Nota Bank--Issuer Credit Rating History**

Date	To
30-Nov-2015	NR/--/--
30-Nov-2015	D/--/--
14-Oct-2015	R/NM/--
25-Sep-2015	B/Watch Neg/--
24-Feb-2015	B/Negative/--
12-Nov-2014	B/Stable/--
03-Jun-2014	B/Negative/--
13-Jun-2013	B/Stable/--

## Logan's Roadhouse Inc.

Samantha Stone, New York (1) 212-438-2205; Andy G Sookram, New York (1) 212-438-5024

- US\$132.8 million 10.75% second-lien senior secured notes due Oct. 15, 2017
- US\$30 million revolving credit facility bank loan due Dec. 6, 2011

On Oct. 20, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based restaurant operator Logan's Roadhouse Inc. to 'SD' from 'CCC'. The rating action was taken after the issuer completed a partial bond exchange of \$355 million senior secured notes for two newly issued bonds. As per our criteria, we view this exchange as a distressed transaction and tantamount to default.

On Oct. 29, 2015, we raised the corporate credit rating on Logan's Roadhouse to 'CCC+' from 'SD'. The outlook is negative. The upgrade followed the review of Logan's capital structure and its liquidity position after the company's partial bond exchange, which reduces the company's cash interest expense requirement by roughly \$18.5 million per year.

**Table 121**

Logan's Roadhouse Inc.--Issuer Credit Rating History	
Date	To
29-Oct-2015	CCC+/Negative/--
20-Oct-2015	SD/NM/--
03-Feb-2015	CCC/Negative/--
21-Nov-2014	B-/Watch Neg/--
11-Apr-2013	B-/Negative/--
31-Aug-2010	B-/Stable/--
07-Jun-2010	B-/Watch Pos/--
25-Mar-2008	B-/Stable/--
01-Nov-2006	B-/Positive/--

## EXCO Resources Inc.

Christine Besset, Dallas 214-765-5865; Ben B Tsocanos, New York (1) 212-438-5014

- US\$750 million 7.50% notes due Sept. 15, 2018
- US\$500 million 8.50% senior notes due April 15, 2022
- US\$600 million revolver bank loan due July 31, 2018
- US\$375 million revolver bank loan due July 31, 2018
- US\$591 million bank loan due Dec. 31, 2020
- US\$300 million second guaranteed senior secured term bank loan due Oct. 26, 2020
- US\$291 million second guaranteed senior secured term bank loan due Oct. 26, 2020

On Nov. 3, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based oil and gas E&P company EXCO Resources Inc. to 'SD' from 'CCC+'. The downgrade followed after the issuer entered into an agreement to repurchase \$252 million of aggregate principal amount of notes in exchange for \$109 million of senior secured second-lien loans, at a significant discount to par at 57%. We view this transaction as distressed exchange as the investors will receive less than what was promised on the original securities.



On Oct. 29, 2015, we raised the corporate credit rating on EXCO Resources to 'CCC+' from 'SD'. The upgrade reflected our forward-looking opinion on the company's creditworthiness after the notes repurchases that reduced debt by approximately \$270 million in October.

On Oct. 21, 2015, we lowered the corporate credit rating on EXCO Resources to 'SD' from 'B-'. The downgrade was taken after the issuer entered into an agreement to exchange a portion of its senior unsecured notes due 2018 and 2022 for a new senior secured term loan at a 49% discount to par. We view the exchange as distressed and equivalent to default.

**Table 122**

**EXCO Resources Inc.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
03-Nov-2015	SD/NM/--
29-Oct-2015	CCC+/Developing/--
21-Oct-2015	SD/NM/--
09-Oct-2015	B-/Negative/--
30-Apr-2015	B-/Stable/--
16-Jan-2015	B/Negative/--
22-Oct-2013	B/Stable/--
09-May-2012	B/Negative/--
07-Feb-2012	B+/Stable/--
18-Jul-2011	BB-/Stable/--
02-Nov-2010	BB-/Watch Neg/--
07-Oct-2009	BB-/Stable/--
19-Aug-2009	B+/Stable/--
30-Jun-2009	B/Watch Pos/--
26-Jan-2009	B/Negative/--
23-May-2008	B/Stable/--
27-Dec-2006	B/Watch Neg/--
21-Apr-2006	B/Stable/--
14-Oct-2005	B/Developing/--
20-Jan-2005	B+/Watch Neg/--
12-Jan-2004	B+/Stable/--

**NYDJ Apparel LLC**

Mariola Borysiak, New York (1) 212-438-7839; Peter C Deluca, New York (1) 212-438-1739

- US\$150 million term bank loan due Jan. 6, 2020
- US\$12.5 million revolver bank loan due Jan. 6, 2019

On Oct. 23, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based NYDJ Apparel LLC to 'SD' from 'B-'. The rating action was taken after NYDJ's announcement that the company amended its \$50 million second-lien note (not rated) to allow the only lender, SLL Inc., to assign all of its obligations under the Credit Agreement to Crestview Partners, the company's private equity sponsor, in exchange for cash consideration. Following

the exchange, the \$37.5 million of the second-lien note became payable to Crestview, and the remaining \$12.5 million was contributed to the company as a non-cash equity and canceled. Considering the distressed financial condition of the company, we see this exchange as default.

On Oct. 26, 2015, we raised the corporate credit rating on NYDJ Apparel to 'CCC+' from 'SD'. The upgrade followed our review of NYDJ's capital structure and its liquidity position after the company's distressed exchange of its \$50 million second-lien notes.

**Table 123**

NYDJ Apparel LLC--Issuer Credit Rating History	
Date	To
26-Oct-2015	CCC+/Negative/--
23-Oct-2015	SD/NM/--
11-May-2015	B-/Negative/--
13-Dec-2013	B/Stable/--

### **Vantage Drilling Co.**

Stephen Scovotti, New York (1) 212-438-5882; Carin Dehne-Kiley, CFA, New York (1) 212-438-1092

- US\$800 million notes due May 1, 2022
- US\$1.15 billion 7.50% notes due Nov. 1, 2019
- US\$100 million 5.50% senior unsecured bonds due July 15, 2043
- US\$56.5 million 7.88% senior unsecured bonds due Sept. 1, 2042

On Nov. 3, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based offshore drilling company Vantage Drilling Co. to 'D' from 'CCC'. The downgrade reflected the issuer's failure to make the \$40.8 million interest payment on its 7.5% secured notes due 2019. We view this as a general default and expect the company to default on all or substantially all of its obligations as they come due.

**Table 124**

Vantage Drilling Co.--Issuer Credit Rating History	
Date	To
03-Nov-2015	D/--/--
23-Jun-2015	CCC/Negative/--
14-May-2015	B-/Negative/--
03-Oct-2012	B-/Stable/--
30-Mar-2012	B-/Positive/--
04-Apr-2011	B-/Stable/--
23-Jul-2010	B-/Negative/--

### **Hidili Industry International Development Ltd.**

Jian Cheng, CFA, Hong Kong (852) 2533-3576; Apple Lo, Hong Kong (852) 2533-3542

- US\$400 million 8.625% senior unsecured bonds due Nov. 4, 2015

On Nov. 5, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Cayman Islands-based coking

coal producer Hidili Industry International Development Ltd. To 'D' from 'CCC-'. The issuer missed the coupon and principal payments on its outstanding U.S. dollar bond due on Nov. 4, 2015. We believe that the issuer's non-payment of this debt will extend to most of its other obligations, due to inadequate financial capacity.

**Table 125**

Hidili Industry International Development Ltd.--Issuer Credit Rating History	
Date	To
04-Nov-2015	D/--/--
27-Apr-2015	CCC-/Negative/--
23-Oct-2014	CCC/Negative/--
22-Oct-2014	SD/NM/--
18-Sep-2014	CC/Negative/--
22-Apr-2014	CCC/Negative/--
18-Apr-2013	CCC+/Negative/--
23-Jan-2013	B-/Watch Neg/--
11-Sep-2012	B/Negative/--
26-Jun-2012	B+/Watch Neg/--
05-Dec-2011	B+/Stable/--
18-Oct-2010	BB-/Negative/--

## Globo PLC

Matthias J Raab, CFA, Frankfurt (49) 69-33-999-122; Panagiotis Paliakoudis, Frankfurt +49 69 33 999 223;

On Nov. 6, 2015, S&P Global Ratings lowered its corporate credit rating on U.K.-based mobile software firm Globo PLC to 'D' from 'CCC'. The rating action followed Globo's announcement that it received a letter from its main creditor regarding the occurrence of events of default, and that a court has placed the company into administration

Subsequently, we withdrew the corporate credit rating on Globo. The withdrawal reflected our lack of reliable data and sufficient information on the company's financial situation.

Earlier, on Oct. 30, 2015, we downgraded Globo to 'CCC' from 'BB-' and placed the rating on CreditWatch with negative implications. The rating action reflected our view that the confirmed falsification of data and the misrepresentation of the company's financial situation by Globo's CEO, as well as the resignation of the company's executive directors, cast doubt over the company's true financial position as well as its operational continuity.

**Table 126**

Globo PLC--Issuer Credit Rating History	
Date	To
06-Nov-2015	NR/--/--
06-Nov-2015	D/--/--
30-Oct-2015	CCC/Watch Neg/--
19-Jun-2015	BB-/Stable/--

## Affinion Group Holdings Inc.

Khaled Lahlo, New York (1) 212-438-1012; Naveen Sarma, New York (1) 212-438-7833

- US\$325 million 13.75% pay-in-kind/toggle notes series A due Sept. 15, 2018
- US\$325 million 11.625% notes due Nov. 15, 2015

On Nov. 10, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based Affinion Group Holdings Inc. to 'SD' from 'CC'. The downgrade followed Affinion's announcement that it completed an exchange of approximately US\$247.4 million (or approximately 95%) of the outstanding \$260.5 million 13.75%/14.5% PIK toggle notes due 2018 and about \$337.3 million (approximately 93.7%) of the \$360 million 13.5% senior subordinated notes due 2018, issued by Affinion and Affinion Investments, respectively. As a result, approximately \$13.1 million aggregate principal amount of the 13.75%/14.5% PIK toggle notes and \$22.6 million aggregate principal amount of the 13.5% senior subordinated notes is outstanding. We view Affinion's distressed debt exchange as tantamount to default.

On Nov. 13, 2015, we raised our corporate credit rating on Affinion to 'CCC+' from 'SD' with a stable outlook after the company's completion of its recent exchange offer and rights offering, and our subsequent reassessment of the company's credit risk.

**Table 127**

### Affinion Group Holdings Inc.--Issuer Credit Rating History

Date	To
13-Nov-2015	CCC+/Stable/--
10-Nov-2015	SD/NM/--
01-Oct-2015	CC/Negative/--
12-Jun-2014	CCC+/Negative/--
10-Jun-2014	SD/NM/--
30-Apr-2014	CC/Negative/--
26-Dec-2013	CCC+/Negative/--
17-Dec-2013	SD/NM/--
08-Nov-2013	CC/Negative/--
25-Jun-2013	CCC+/Negative/--
07-Dec-2012	B-/Stable/--
20-Aug-2012	B/Watch Neg/--
27-Mar-2012	B/Negative/--
08-Dec-2011	B+/Negative/--
08-Feb-2011	B+/Stable/--
28-Sep-2010	B+/Negative/--

## Essar Steel Algoma Inc.

Jarrett Bilous, Toronto (1) 416-507-2593; Phalguni Adalja, Toronto 1-416-507-3212;

- US\$375 million bank loan due Aug. 16, 2019
- US\$375 million 9.50% senior-lien notes due Nov. 15, 2019
- US\$252 million 14.00% pay-in-kind notes due Nov. 14, 2020

On Nov. 11, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Canada-based steel producer Essar Steel Algoma Inc. (ESA) to 'D' from 'CCC-'. Our downgrade of ESA followed the company's filing and receipt of creditor protection under the CCAA in Canada and its Chapter 15 filing under the U.S. Bankruptcy Code on Nov. 9, 2015. Concurrent with the filing, ESA entered into a \$200 million DIP facility, including a \$175 million term loan and US\$25 million asset-based loan revolving facility.

**Table 128**

Essar Steel Algoma Inc.--Issuer Credit Rating History	
Date	To
11-Nov-2015	D/--/--
08-Oct-2015	CCC-/Negative/--
22-Apr-2015	CCC+/Negative/--
17-Nov-2014	B-/Stable/--
18-Aug-2014	SD/NM/--
26-Jun-2014	CCC-/Watch Neg/--
26-Sep-2012	CCC+/Developing/--
14-Sep-2012	CCC+/Watch Dev/--
22-Jun-2012	CCC/Watch Dev/--
05-Apr-2012	CCC+/Watch Dev/--
10-Aug-2011	B-/Negative/--
24-Nov-2010	B-/Watch Neg/--
25-Jun-2009	B-/Negative/--
19-Mar-2009	B/Negative/--
07-Jun-2007	B/Stable/--
08-Nov-2001	NR/--/--
03-May-2001	D/--/--
23-Apr-2001	D/--/--
24-Jan-2001	CCC+/Negative/--
28-Nov-2000	B/Negative/--
15-Dec-1998	B/Stable/--
17-Oct-1997	B/Positive/--
26-May-1995	B/Stable/--

### Millennium Health LLC

Shannan R Murphy, Boston 6175308337; James E Uko, New York (1) 212-438-1587

- US\$50 million revolver bank loan due April 16, 2019
- US\$1.775 billion term bank loan due April 16, 2021

On Nov. 13, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based Millennium Health LLC to 'D' from 'CC'. The rating action reflected Millennium's announcement that it filed for Chapter 11 bankruptcy protection in order to effect a prepackaged financial restructuring that will result in a \$1.15 billion reduction in the company's debt and that will result in the company's lenders becoming the new owners of the company.

**Table 129****Millennium Health LLC--Issuer Credit Rating History**

Date	To
13-Nov-2015	D/--/--
19-Oct-2015	CC/Watch Neg/--
01-Sep-2015	CCC+/Negative/--
21-Jul-2015	B/Watch Neg/--
14-May-2015	B/Negative/--
28-Mar-2014	B+/Stable/--

**China Shanshui Cement Group Ltd.**

Jian Cheng, CFA, Hong Kong (852) 2533-3576; Ellen Y Li, Hong Kong (852) 2533-3527;

- US\$500 million 7.50% notes due March 10, 2020
- US\$400 million 8.50% notes May 25, 2016
- US\$400 million 10.50% notes due April 27, 2017

On Nov. 13, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Hong Kong-based China Shanshui Cement Group Ltd. to 'D' from 'CC'. We lowered the rating after Shanshui failed to repay its Chinese renminbi 2 billion onshore super short-term commercial paper due Nov. 12, 2015. In our view, the failure to repay this debt will trigger a cross-default of the company's other financial obligations, including some onshore bank loans and outstanding U.S. dollar notes. Shanshui's winding-up petition and an application to the Grand Court of Cayman Islands to appoint provisional liquidators for restructuring also constitute an event of default under the terms of the company's outstanding U.S. dollar notes and resulted in an acceleration of payment of the notes.

**Table 130****China Shanshui Cement Group Ltd.--Issuer Credit Rating History**

Date	To
13-Nov-2015	D/--/--
06-Nov-2015	CC/Negative/--
17-Jun-2015	CCC/Negative/--
16-Apr-2015	B+/Watch Neg/--
15-Sep-2014	B+/Stable/--
17-Apr-2014	BB-/Watch Neg/--
31-Jul-2013	BB-/Negative/--
03-Sep-2012	BB/Negative/--
08-May-2011	BB/Stable/--

**PJSC - BANK URALSIB**

Sergey Voronenko, Moscow (7) 495-783-40-03; Natalia Yalovskaya, London (44) 20-7176-3407

On Nov. 25, 2015, S&P Global Ratings lowered its 'B-' long-term counterparty credit ratings on Russia-based PJSC - BANK URALSIB to 'SD'. The downgrade followed Bank URALSIB's announcement that on Nov. 16, 2015, it had canceled all its outstanding subordinated debts, including non-hybrid (under our classification) "old style" loans without loss-absorption features. We view the executed cancellation of two non-hybrid "old style" subordinated

bilateral loans of \$73.6 million maturing in 2017, and RUB6 billion maturing in 2019, received in 2007 and 2008, respectively, as equaling nonpayment in full. This is because at the close of the transaction, investors will receive less than they were promised in the original agreements on the maturity date.

On Dec. 15, 2015, we raised our long-term counterparty credit ratings on BANK URALSIB to 'CCC+' from 'SD'. The outlook is positive. The upgrade followed Bank URALSIB's cancellation of its subordinated debts.

**Table 131**

**PJSC - BANK URALSIB--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
15-Dec-2015	CCC+/Positive/--
25-Nov-2015	SD/NM/--
29-Sep-2015	B-/Negative/--
02-Jul-2015	B/Watch Neg/--
24-Feb-2015	B+/Negative/--
18-Jul-2013	B+/Stable/--
25-Jun-2012	BB-/Negative/--
09-Dec-2011	BB-/Stable/--
26-May-2011	B+/Stable/--
17-Jun-2009	B+/Negative/--
10-Oct-2008	BB-/Negative/--
15-May-2008	BB-/Stable/--
27-Nov-2006	B+/Positive/--
07-Nov-2005	B/Positive/--
24-Mar-2005	B-/Positive/--
24-Nov-2003	B-/Stable/--
02-Sep-2003	B-/Positive/--
13-Mar-2003	B-/Stable/--
02-Sep-2002	CCC+/Positive/--
31-Aug-2001	CCC+/Stable/--

**China Fishery Group Ltd.**

Lillian Chiou, Hong Kong (852) 2533-3530; Sophie Lin, Hong Kong (852) 2533-3544

On Nov. 26, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Hong Kong-based China Fishery Group Ltd. to 'SD' from 'CCC+'. The rating action followed the company's failure to repay a \$31 million principal installment on its \$650 million club loan facility due earlier in the month. The missed payment resulted in one of the lenders filing a petition in the Hong Kong high court to liquidate China Fishery. The court appointed provisional liquidators and is seeking to wind up the company. We view China Fishery's failure to repay the principal installment as a default on the club loan. However, the company serviced all interest payments on its guaranteed senior unsecured bonds to this point.

**Table 132****China Fishery Group Ltd.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
26-Nov-2015	SD/NM/--
19-Oct-2015	CCC+/Watch Neg/--
20-May-2015	B/Stable/--
15-Aug-2014	B/Watch Neg/--
30-May-2013	B+/Negative/--
28-Feb-2013	B+/Watch Neg/--
04-Dec-2012	B+/Negative/--
28-Sep-2012	B+/Stable/--
19-Dec-2011	BB-/Negative/--
21-Dec-2010	BB-/Stable/--
11-Dec-2008	B+/Stable/--
08-Jan-2008	B+/Positive/--
01-Dec-2006	B+/Stable/--

**Swift Energy Co.**

Aaron McLean, New York (1) 212-438-7211; Carin Dehne-Kiley, CFA, New York (1) 212-438-1092

- US\$150 million 7.875% notes due March 1, 2022
- US\$225 million 8.875% senior notes due Jan. 15, 2020
- US\$250 million 7.125% senior notes due June 1, 2017
- US\$400 million 7.875% notes due March 1, 2022
- US\$500 million first-lien guaranteed senior secured revolving bank loan due Nov. 1, 2017
- US\$640 million bank loan due June 30, 2020

On Dec. 2, 2015, S&P Global Ratings lowered its corporate credit and issue-level ratings on U.S.-based oil and gas E&P company Swift Energy Co. to 'D' from 'CCC'. The ratings reflected Swift Energy Co.'s announcement that the issuer missed an \$8.9 million interest payment on its \$250 million 7.125% senior notes due 2017, and our belief that the company would not make this payment before the grace period ended on Dec. 29, 2015.

**Table 133****Swift Energy Co.--Issuer Credit Rating History**

<b>Date</b>	<b>To</b>
02-Dec-2015	D/--/--
17-Jul-2015	CCC/Negative/--
23-Jun-2015	B-/Negative/--
16-Jan-2015	B-/Stable/--
14-Nov-2014	B/Stable/--
15-May-2014	B+/Negative/--
16-Sep-2009	B+/Stable/--
26-Jan-2009	B+/Negative/--
27-Dec-2000	BB-/Stable/--
27-Sep-2000	B+/Watch Pos/--



**Table 133****Swift Energy Co.--Issuer Credit Rating History (cont.)**

Date	To
08-Jul-1999	B+/Stable/--
07-Dec-1998	B+/Negative/--
11-Nov-1996	B+/Stable/--

**Getty Images Inc.**

Elton Cerda, New York (1) 212-438-9540; Andy Liu, CFA, Chicago (1) 312-233-7052

- US\$150 million revolver bank loan due Oct. 18, 2017
- US\$1.9 billion term B bank loan due Oct. 18, 2019
- US\$265 million 0.50% convertible debentures due June 9, 2023
- US\$550 million senior unsecured loans due Dec. 31, 2020

On Dec. 11, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based Getty Images Inc. to 'SD' from 'CC'. The downgrade followed Getty Images' announcement that it completed a debt exchange of \$234 million 7% senior unsecured notes due 2020 for \$150 million of new 10.5% first-lien notes due 2020. We view the exchange as tantamount to a default, based on our criteria, because the debt holders are not receiving the originally promised value.

On Dec. 16, 2015, we raised our corporate credit rating on Getty Images to 'CCC+' from 'SD'. The rating outlook is negative. The upgrade reflected Getty Images' completion of its recent exchange offer and our subsequent reassessment of the company's credit risk.

**Table 134****Getty Images Inc.--Issuer Credit Rating History**

Date	To
16-Dec-2015	CCC+/Negative/--
11-Dec-2015	SD/NM/--
05-Nov-2015	CC/Negative/--
29-Sep-2015	CCC+/Negative/--
10-Mar-2015	B-/Negative/--
20-Dec-2013	B/Negative/--
28-Sep-2012	B/Stable/--
20-Aug-2012	BB-/Watch Neg/--
26-Jun-2009	BB-/Stable/--
09-Jun-2008	BB-/Negative/--
25-Feb-2008	BB-/Watch Neg/--
28-Sep-2007	BB/Negative/--
13-Jun-2007	B+/Watch Pos/--
04-Dec-2006	B+/Watch Dev/--
28-Jul-2005	BB/Stable/--
05-Jun-2003	BB-/Stable/--

**Table 134****Getty Images Inc.--Issuer Credit Rating History (cont.)**

Date	To
21-May-1998	B+/Stable/--

**Magnum Hunter Resources Corp.**

Christine Besset, Dallas 214-765-5865; Ben B Tsocanos, New York (1) 212-438-5014

- US\$150 million 9.75% senior unsecured notes due May 15, 2020
- US\$340 million second-lien term bank loan due Oct. 22, 2019
- US\$55 million first-lien guaranteed senior secured term bank loan due Dec. 30, 2015
- US\$5 million first-lien guaranteed senior secured term bank loan due Dec. 30, 2015
- US\$600 million 9.75% senior secured notes due May 15, 2020

On Dec. 15, 2015, S&P Global Ratings lowered its corporate credit rating on U.S.-based Magnum Hunter Resources Corp. to 'D' from 'CCC-'. The rating action followed Magnum Hunter's announcement that it filed voluntary petitions for restructuring under Chapter 11 of the U.S. Bankruptcy Code. Magnum Hunter also announced its entry into a restructuring support agreement with lenders that hold, in the aggregate, about 75% of the company's debt. The restructuring support agreement provides for DIP financing in the form of a \$200 million senior secured term loan that will be backstopped by lenders who are parties to the agreement.

**Table 135****Magnum Hunter Resources Corp.--Issuer Credit Rating History**

Date	To
15-Dec-2015	D/--/--
12-May-2015	CCC-/Negative/--
16-Jan-2015	CCC+/Negative/--
14-Nov-2014	B-/Negative/--
13-Dec-2012	B-/Stable/--
07-May-2012	B-/Positive/--

**Abengoa S.A.**

David Matthews, London (44) 20-7176-3611; Per Karlsson, Stockholm (46) 8-440-5927

- €500 million 8.50% notes due March 31, 2016
- €150 million guaranteed unsecured term bank loan due July 18, 2016
- €400 million 6.25% senior secured notes due Jan. 17, 2019
- €701.45 million guaranteed senior unsecured revolver bank loan due July 20, 2019
- €165 million revolver bank loan due Sept. 23, 2016
- €170 million unsecured bank term loan
- €250 million 6.25% senior unsecured notes due Feb. 3, 2017
- €698.95 million 3.00% term loan A bank loan due July 20, 2019
- €698.95 million 3.00% term loan B bank loan due July 21, 2018
- US\$279 million 5.125% senior unsecured notes due March 5, 2017

On Dec. 16, 2015, S&P Global Ratings lowered to 'SD' from 'CCC-' its long-term corporate credit rating on Spanish engineering and construction company Abengoa S.A. The downgrade reflected Abengoa's failure to pay scheduled maturities under its €750 million euro-commercial paper program. We view this as a selective default under our timeliness of payments criteria.

On Dec. 10, 2015, Abengoa issued an announcement through the Companies Announcement Service of the Irish Stock Exchange that it had not paid amounts due under the program and that Abengoa is undergoing a debt restructuring process that caused it to temporarily suspend certain financial commitments.

**Table 136**

**Abengoa S.A.--Issuer Credit Rating History**

Date	To
16-Dec-2015	SD/NM/--
26-Nov-2015	CCC-/Negative/--
30-Jun-2015	B+/Stable/--
09-Jun-2015	B/Watch Pos/--
19-Mar-2014	B/Positive/--
02-Apr-2013	B/Negative/--
27-Dec-2012	B+/Watch Neg/--
13-Oct-2010	B+/Stable/--

**Empresas ICA S.A.B. de C.V.**

Fabiola Ortiz, Mexico City (52) 55-5081-4449; Luis Manuel M Martinez, Mexico City (52) 55-5081-4462

- US\$350 million 8.375% notes due July 24, 2017
- US\$500 million 8.90% perpetual senior unsecured notes due Feb. 4, 2021
- US\$700 million 8.875% senior notes due May 29, 2024

On Dec. 18, 2015, S&P Global Ratings lowered its global scale rating on Mexico-based Empresas ICA S.A.B. de C.V. to 'D' from 'CC'. The rating action reflected Empresas ICA's decision that it would not make the \$31 million interest payment on its 8.875% senior notes due 2024 prior to the expiration of the grace period on Dec. 29, 2015. The company also announced that it was working on a restructuring plan and began the process of engaging with its creditors and other stakeholders.

**Table 137**

**Empresas ICA S.A.B. de C.V.--Issuer Credit Rating History**

Date	To
18-Dec-2015	D/--/--
02-Dec-2015	CC/Watch Neg/--
13-Nov-2015	CCC+/Negative/--
02-Oct-2015	B/Negative/--
19-Mar-2015	B/Stable/--
21-May-2013	B+/Negative/--
26-Jan-2011	BB-/Stable/--
15-Jul-2010	BB-/Positive/--

**Table 137**

<b>Empresas ICA S.A.B. de C.V.--Issuer Credit Rating History (cont.)</b>	
<b>Date</b>	<b>To</b>
22-Aug-2006	BB-/Stable/--
07-Apr-2006	B/Watch Pos/--
29-Jul-2005	B/Stable/--
22-Jul-2005	B-/Watch Pos/--
11-Aug-2004	B-/Negative/--
13-Feb-2004	CCC/Watch Pos/--
09-Jan-2003	CCC/Negative/--
02-Aug-2002	CCC/Watch Neg/--
22-Mar-2002	B/Negative/--
14-Jul-2000	B/Stable/--
08-Feb-2000	B+/Watch Neg/--
10-Sep-1999	BB-/Negative/--
28-Jul-1998	BB-/Positive/--
26-Aug-1997	BB-/Watch Pos/--
17-May-1996	BB-/Stable/--
10-Mar-1995	BB-/Negative/--
02-Feb-1995	BB/Stable/--
02-May-1994	BB+/Watch Neg/--

**Foreign Economic Industrial Bank (Vneshprombank)**

Sergey Voronenko, Moscow (7) 495-783-40-03; Irina Velieva, Moscow (7) 495-783-40-71

- RUB3 billion notes series BO-03 due June 22, 2018
- US\$225 million 9.00% notes due Nov. 14, 2016
- RUB1.5 billion 13.5% senior unsecured notes due Dec. 13, 2017
- RUB7 billion notes series BO-06 due March 23, 2020

On Dec. 21, 2015, S&P Global Ratings lowered the long-term counterparty credit rating on Foreign Economic Industrial Bank (Vneshprombank) to 'R' from 'B+'. The downgrade followed after the CBR introduced temporary administration for Foreign Economic Industrial Bank (Vneshprombank) for the next six months. The move indicates the bank's financial stress to meet its debt obligations. CBR has suspended the authority of the bank's shareholders and managers.

On Jan. 14, 2016, we lowered the long-term counterparty credit rating on Vneshprombank to 'D' from 'R'. The rating action reflected that the issuer is facing financial stress and is under a payment moratorium. We believe that the bank won't be able to fulfill the interests of creditors, including its previous missed coupon payments on its senior unsecured debt series BO-3 maturing June 2018, and have therefore considered it a default.

**Table 138****Foreign Economic Industrial Bank (Vneshprombank)--Issuer Credit Rating History**

Date	To
14-Jan-2016	D/--/--
21-Dec-2015	R/NM/--
24-Feb-2015	B+/Negative/--
23-Apr-2013	B+/Stable/--
21-Apr-2011	B/Stable/--
25-May-2010	B-/Positive/--
17-Jul-2008	B-/Stable/--
06-Sep-2007	CCC/Stable/--

**Arch Coal Inc.**

Chiza B Vitta, Dallas (1) 214-765-5864; James E Fielding, New York (1) 212-438-2452

- US\$1 billion 7.00% senior notes due June 15, 2019
- US\$1 billion 7.25% senior notes due June 15, 2021
- US\$375 million 9.875% notes due June 15, 2019
- US\$350 million 8.00% second-lien notes due Jan. 15, 2019
- US\$600 million 8.75% senior notes due Aug. 1, 2016
- US\$500 million 7.25% senior notes due Oct. 1, 2020
- US\$250 million revolver bank loan due June 14, 2016

On Dec. 22, 2015, S&P Global Ratings lowered the corporate credit rating on U.S.-based coal producer Arch Coal Inc. to 'SD' from 'CC'. The rating action followed the issuer's decision to exercise the 30-day grace period under its indenture agreements with holders of its 9.875% senior notes due 2019, 7.00% senior notes due 2019, and 7.25% senior notes due 2021. This extended the time period the company has to make the approximately \$90 million interest payment due Dec. 15, 2015, without triggering an event of default under the indentures. We consider this as an event of default as we did not expect the payment would be made within the 30-day grace period permitted under the indenture agreements.

On Jan. 11, 2016, we lowered our corporate credit rating on Arch Coal to 'D' from 'SD'. The rating action was taken after the issuer filed voluntary petitions for restructuring under Chapter 11 of the U.S. Bankruptcy Code. The issuer has entered into an agreement with an ad hoc group of lenders who hold more than 50% of the company's first-lien debt. As per the agreement, the lenders have agreed to support the restructuring transaction which will eliminate more than \$4.5 billion in debt from Arch's balance sheet.

**Table 139****Arch Coal Inc.--Issuer Credit Rating History**

Date	To
11-Jan-2016	D/--/--
22-Dec-2015	SD/NM/--
07-Jul-2015	CC/Negative/--
02-Jun-2015	CCC+/Negative/--
29-Aug-2014	B/Negative/--

**Table 139**

Arch Coal Inc.--Issuer Credit Rating History (cont.)	
Date	To
03-Dec-2013	B/Stable/--
14-Nov-2012	B+/Negative/--
03-May-2012	B+/Stable/--
25-Apr-2012	BB-/Watch Neg/--
16-Jun-2011	BB-/Stable/--
02-May-2011	BB-/Watch Dev/--
01-Oct-2009	BB-/Stable/--
09-Mar-2009	BB-/Watch Neg/--
15-Sep-2008	BB/Stable/--
19-Jul-2005	BB-/Stable/--
03-Aug-2004	BB/Stable/--
17-Jun-2003	BB+/Negative/--
29-May-2003	BB+/Watch Neg/--
23-Apr-2003	BB+/Negative/--
18-Mar-2002	BB+/Stable/--
21-Sep-2001	BB+/Positive/--
04-May-2001	BB-/Watch Pos/--
22-Mar-2000	BB/Stable/--
11-Feb-2000	BB+/Watch Neg/--
13-Oct-1998	BB+/Watch Dev/--

### Heckler & Koch GmbH

Lucy L Huynh, CFA, London (44) 20-7176-7631; Eve Seiltgens, Frankfurt (49) 69-33-999-124

- €295 million 9.50% bonds due May 15, 2018

On Dec. 22, 2015, S&P Global Ratings lowered its long-term corporate credit rating on German defense contractor Heckler & Koch GmbH to 'SD' from 'CCC' and its long-term issue rating on the company's senior secured notes to 'D' from 'CCC-'. On Dec. 17, 2015, during Heckler & Koch's third-quarter results call, the company announced the repurchase of €45 million of its €295 million senior notes at a discount of about 11%. During the call, management also stated that it was considering additional repurchases subject to market conditions and sufficient liquidity. We view this exchange as distressed rather than opportunistic considering that both the rating and below-par bond prices indicate a realistic possibility of conventional default over the near to medium term.

On Dec. 23, 2015, S&P Global Ratings raised its corporate credit rating on Heckler & Koch to 'CCC' from 'SD'. Heckler & Koch's repurchase of senior notes due 2018, at below par value, has only resulted in an incremental improvement in credit metrics, which remain very highly leveraged. The negative outlook reflects the risk of a downgrade within the next 12 months, as we continue to see a risk of default. Heckler & Koch's business prospects and cash flow generation remain uncertain, which leaves the group vulnerable to further adverse developments.

**Table 140****Heckler & Koch GmbH--Issuer Credit Rating History**

Date	To
23-Dec-2015	CCC/Negative/--
22-Dec-2015	SD/NM/--
07-Oct-2014	CCC/Negative/--
24-Jun-2013	CCC+/Negative/--
09-Dec-2011	CCC/Negative/--
20-Jun-2011	CCC+/Stable/--
03-May-2011	CCC-/Watch Pos/--
28-Feb-2011	CCC-/Negative/--
22-Nov-2010	CCC+/Negative/--
01-Feb-2010	B-/Negative/--
26-Jun-2008	B-/Stable/--
28-Feb-2006	B-/Negative/--
02-Jul-2004	B/Stable/--

**Cognor S.A.**

Gaetan Michel, Paris 33-1-4420-6726; Tommy J Trask, Dubai (971) 4-372-7151

On Dec. 30, 2015, S&P Global Ratings lowered its long-term corporate credit rating on Polish Steelmaker Cognor S.A. to 'SD' from 'CC'. The rating action was taken after assessing the outcome of Cognor's tender offer, through a modified Dutch auction on its senior secured notes. As per the offer, Cognor will repay €6.96 million in aggregate principal amount of notes, for an amount corresponding to 53.8% of their notional value. As the clearing price at which the notes will be repurchased is significantly below the corresponding par amount being redeemed, we consider the offer as distressed exchange and tantamount to default.

**Table 141****Cognor S.A.--Issuer Credit Rating History**

Date	To
30-Dec-2015	SD/NM/--
04-Dec-2015	CC/Negative/--
17-Feb-2014	CCC+/Stable/--
04-Feb-2014	SD/NM/--
21-Nov-2013	CC/Negative/--
10-Apr-2013	CCC/Negative/--
04-Oct-2012	CCC+/Negative/--

**Related Research**

- The U.S. Corporate Speculative-Grade Default Rate Is Expected To Rise To 3.9% By December 2016, Feb. 11, 2016
- Recovery Study (U.S.): A Tightening Credit Market Signals Headwinds For Post-Default Recoveries, Dec. 17, 2015

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