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Default, Transition, and Recovery:

2016 Annual Global Corporate Default Study And Rating Transitions

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Default, Transition, and Recovery:

2016 Annual Global Corporate Default Study And Rating Transitions

The largely unexpected passage of the Brexit referendum in the U.K. and the election of Donald Trump in the U.S. dominated news headlines in 2016 and remain prime sources of potential investor risk. However in 2016 corporate defaults primarily resulted from by prolonged stress in global energy markets. Oil prices began 2016 at their lowest levels in roughly 14 years. Despite oil prices rising for most of the year, the energy and natural resources sector had increased default activity over an already elevated 2015, and the sector accounted for over 50% of all defaults in 2016. This helped push the corporate default count up to 162--the second consecutive year since 2009 with over 100 defaults (see Table 1). These 162 defaulted issuers accounted for \$239.8 billion in debt, which is more than double the \$110.3 billion total for 2015.

At the end of December 2016, the global speculative-grade default rate rose to 4.2%--its highest level since 2009 (when it was just under 10%) and just above the 36-year annual average of 4.1% (see Chart 7). Similarly to 2015, the increase stemmed largely from the much higher rate of defaults in the energy and commodities sectors. At the end of 2016, the global speculative-grade default rate excluding energy and natural resources was a much more modest 2.3%. Meanwhile, the speculative-grade default rate for the energy and natural resources sector was 21.1% by year-end, up from 9.8% in 2015.

Despite the increase in defaults, credit quality and rating stability measures remained generally in line with historical averages (see Table 6). For example, the ratio of downgrades to upgrades changed little relative to 2015, with slight increases in the quantities of both upgrades and downgrades. There were large clusters of downgrades in February 2016; these stemmed first from our downward revisions to our oil and natural gas prices assumptions and then from our sovereign downgrade of Brazil in the face of a continuing economic contraction and fiscal difficulties.

All of the defaulted companies in 2016 that were rated as of the beginning of the year (143) had a speculative-grade rating ('BB+' or lower) (see Table 1). Of the remaining 19 defaults, 10 were by companies that S&P Global Ratings first rated in 2016, and nine were by companies with ratings that we withdrew before the beginning of the year. Also, of the 162 defaulters, 154 (95%) initially had speculative-grade ratings, the majority of which (127) were from the 'B' and 'CCC'/'C' rating categories. We consider companies reemerging from a prior default to be separate entities from prior to default.

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

Overview

- In 2016, the number of defaults globally expanded to 162 from 113 in 2015. This pushed the global speculative-grade default rate up to 4.2% from 2.8% at the end of 2015. This increase came alongside an essentially static level of speculative-grade issuers in 2016. Compared to 2015, there was one fewer speculative-grade issuer at the start of the year, a marked decline after growth of 7%-12% for the previous five years.
- The prolonged period of low oil and other commodity prices was the biggest factor behind the overall increase in defaults for the year. The energy and natural resources sector accounted for 51% of all defaults in 2016, a historical record and far outpacing the consumer/service sector, which followed at roughly 9.9%.
- The one-year global Gini ratio rose to 87 in 2016, an increase over 83.6 in 2015 but slightly lower than the post-financial crisis average of 88.9. This was the second consecutive year that the 'CCC'/'C' category accounted for less than 50% of all defaults.
- The overall rate of rating actions increased slightly in 2016 relative to 2015 and was very consistent with long-term averages across all categories. The downgrade rate increased to 12.2% from 11.8% in 2015, while the upgrade rate rose to 7.9% from 7.4%. The prime drivers of downgrades in 2016 were the revised oil and natural gas price deck assumptions and declines in credit quality following our sovereign downgrade of Brazil in February.
- Consistent with past years, the U.S. continued to account for the majority of defaults globally in 2016 at 64.8%. This is the highest proportion of the total from the U.S. region since 2011, when 73.6% of all defaults originated there. Conversely, of the total issuers rated at the beginning of the year, the share from the U.S. continued to fall--to an all-time low of 47%.

Despite an increasing number of defaults in 2016 from the prior year, the one-year Gini ratio--a key measure of the relative ability of ratings to differentiate risk--rose to 87 in 2016 from 83.6 in 2015. This is a relatively low post-2008 Gini ratio but is still higher than the long-term average of 84.9 (see Chart 30 and Table 2). (For details on the Gini methodology, refer to Appendix II.) Over half of all defaults in 2016 occurred within the energy and natural resources sector--the second year in a row in which this sector produced the most defaults. Nearly all other sectors had default rates well below their long-term averages, with the transportation sector the only other one above that level (see Chart 2). And nearly every rating category had an annual default rate in 2016 that was generally significantly lower than its long-term average (see Table 4). 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.

Table 1

Global Corporate Default Summary

	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

Table 1

Global Corporate Default Summary (cont.)							
	Total defaults*	Investment-grade defaults	Speculative-grade defaults	Default rate (%)	Investment-grade default rate (%)	Speculative-grade default rate (%)	Total debt outstanding (Bil. \$)
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
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	6.23	43.28
2001	229	7	173	3.78	0.23	9.87	118.79
2002	226	13	159	3.59	0.42	9.49	190.92
2003	119	3	89	1.92	0.10	5.06	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	9.89	627.70
2010	83	0	64	1.20	0.00	3.00	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
2016	162	0	143	2.06	0.00	4.19	239.79

* This column includes companies that were no longer rated one year prior to default. Sources: S&P Global Fixed Income Research and S&P Credit Pro®.

Chart 1

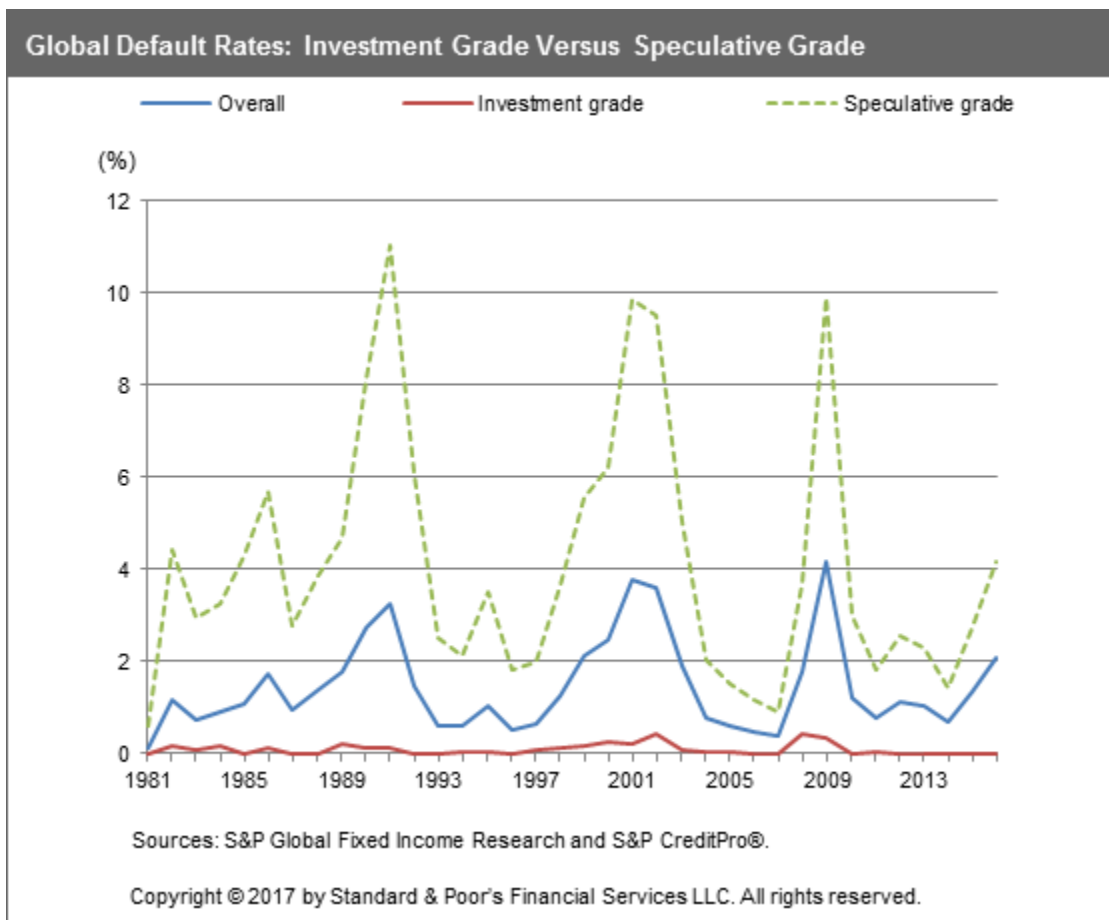
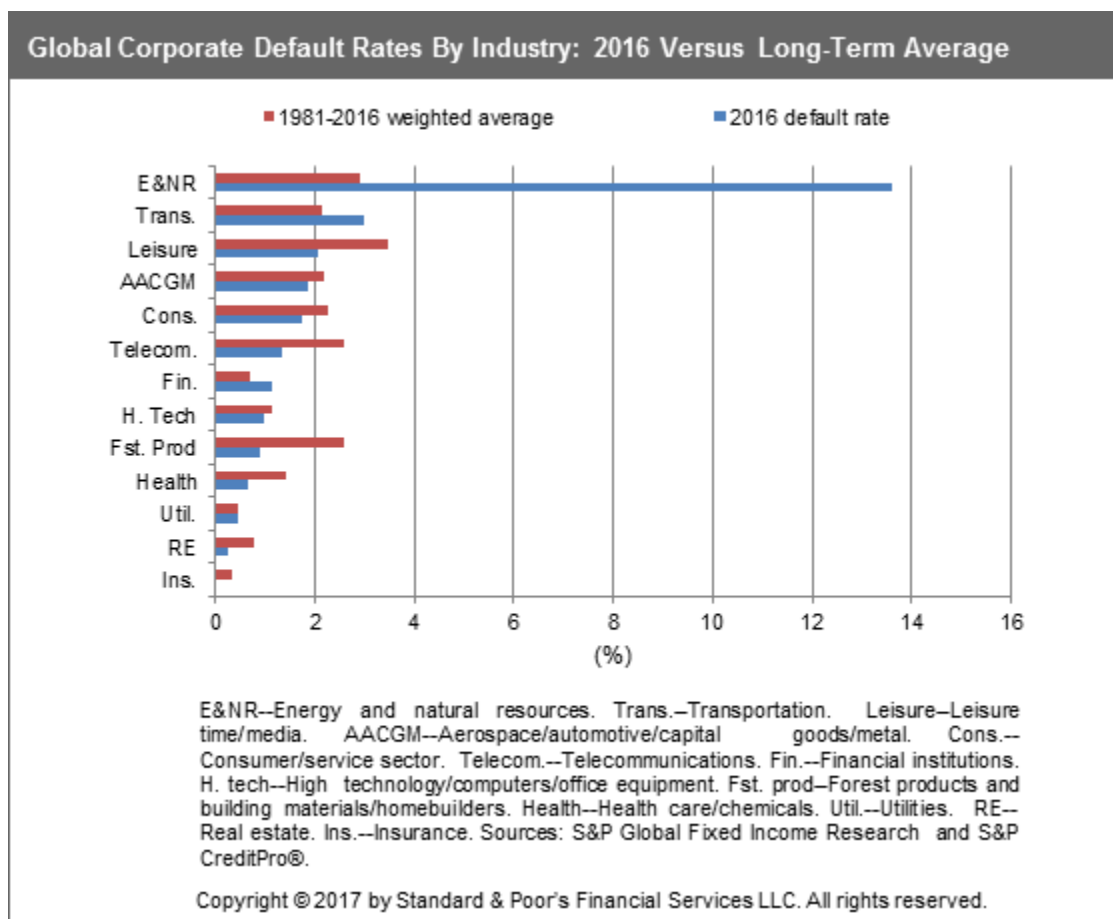
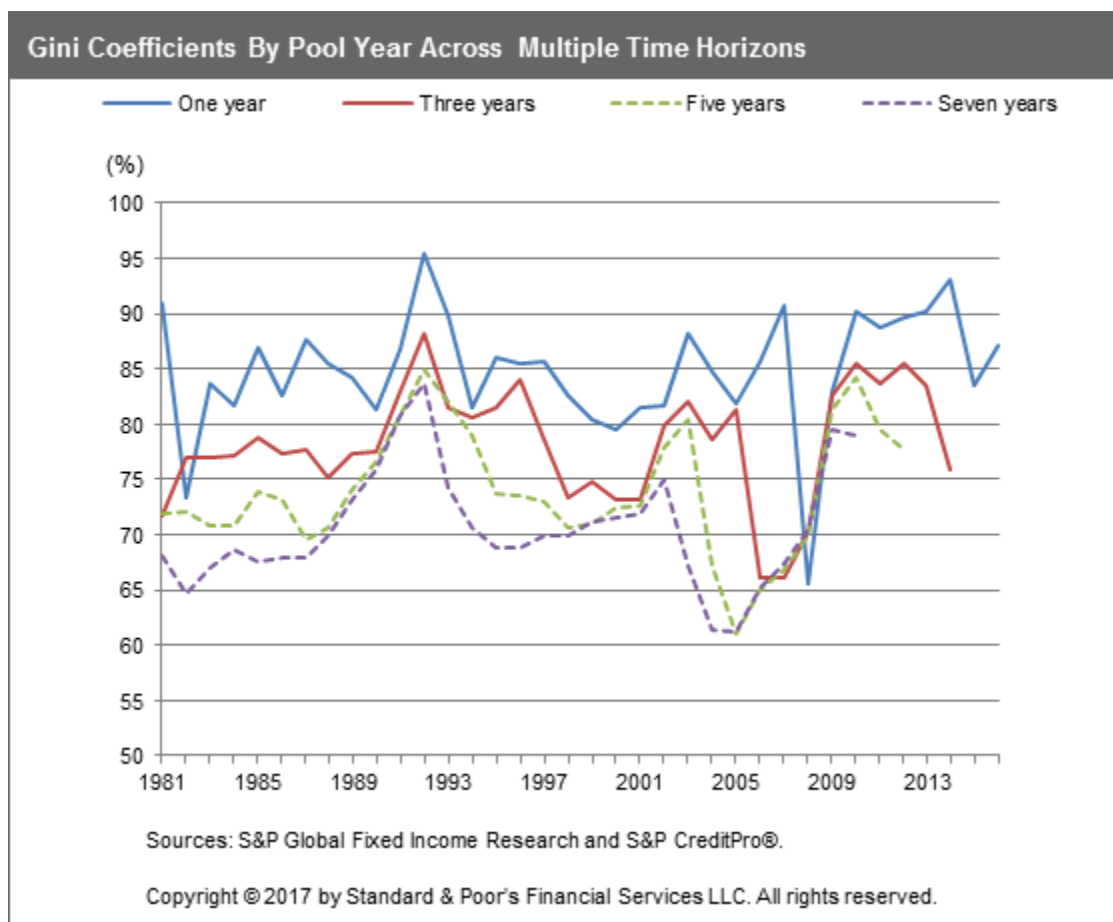


Chart 2



The Gini ratio is 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



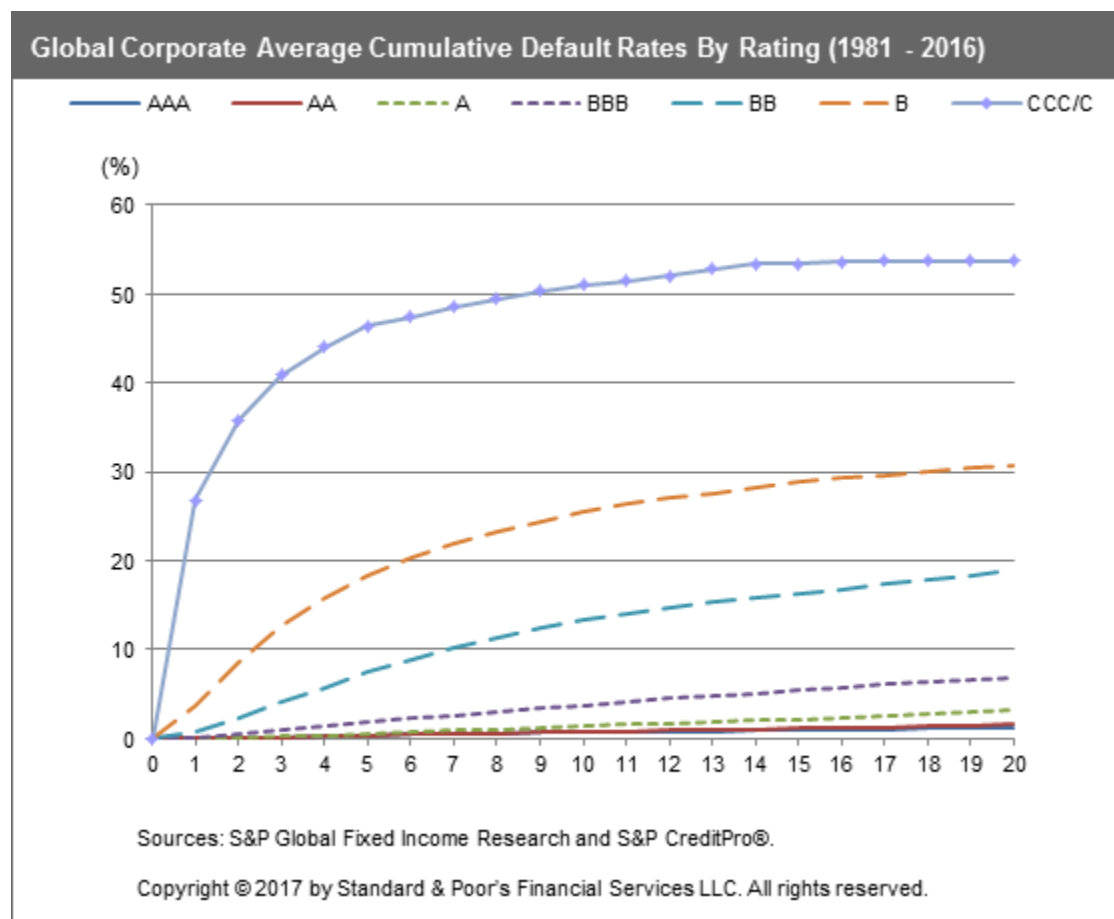
All of S&P Global Ratings' default studies have found a clear correlation between ratings and defaults: The higher the rating, the lower the observed frequency of default, and vice versa. Over each time span, lower ratings correspond to higher default rates (see Chart 4 and Chart 25). We found that the same is true when we broke out the data by rating (see Tables 24 and 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, many highly rated companies have been downgraded, leaving, for example, exceedingly few 'AAA' rated issuers at the start of 2016. As such, rating categories with smaller populations will experience high rating transition rates when even a small number of issuers are upgraded or downgraded.

Table 2

Global Average Gini Coefficients By Broad Sector (1981 - 2016)				
	--Time horizon (years)--			
	1	3	5	7
Global				
Weighted average	82.30	75.09	71.72	69.50
Average	84.89	78.22	74.01	70.62
Standard deviation	5.46	5.20	5.58	5.29
Financial				
Weighted average	79.69	68.47	60.86	55.88
Average	81.42	74.29	65.83	58.78
Standard deviation	19.66	14.64	15.96	14.25
Nonfinancial				
Weighted average	80.73	73.00	69.90	68.13
Average	84.12	76.94	73.01	69.74
Standard deviation	6.11	5.44	5.63	5.17

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Chart 4



All of the rated defaulters in 2016 began the year with a speculative-grade rating, and of those, over 95% were from the lowest rating categories: 'B' and 'CCC'/'C' (see Table 3). The default rate for the 'BB' category also hit its highest point (0.47%) since 2010. Default rates for the 'BB' and 'B' categories increased in 2016 but are still below their weighted long-term averages (see Table 4). The 'B' rating category's default rate was 3.7%, which was the highest since 2009 though still well below that year's 10.9%. Once again, the default rate in the 'AAA' rating category was 0%, which maintains the unblemished default record for corporate ratings in this category and is consistent with historical trends. And, for the fifth year in a row, there were no defaults by companies with investment-grade ratings.

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	1.16	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	2.89	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	10.92	49.46
2010	0.00	0.00	0.00	0.00	0.58	0.86	22.62
2011	0.00	0.00	0.00	0.07	0.00	1.67	16.30
2012	0.00	0.00	0.00	0.00	0.30	1.56	27.52
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	0.78	17.13
2015	0.00	0.00	0.00	0.00	0.16	2.39	25.88
2016	0.00	0.00	0.00	0.00	0.47	3.68	32.67

Sources: S&P Global Fixed Income Research and S&P 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	0.18	0.72	3.76	26.78
Median	0.00	0.00	0.00	0.07	0.64	3.46	23.71
Standard deviation	0.00	0.07	0.10	0.26	1.01	3.29	11.76
2008 default rates	0.00	0.38	0.39	0.49	0.81	4.08	27.27
Latest four quarters (Q1 2016 - Q4 2016)	0.00	0.00	0.00	0.00	0.47	3.68	32.67
Difference between last four quarters and weighted average	0.00	(0.02)	(0.06)	(0.18)	(0.25)	(0.08)	5.90
Number of standard deviations	0.00	(0.29)	(0.59)	(0.69)	(0.25)	(0.02)	0.50

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

2016 Summary

Below are some of our key findings for 2016:

- By count, the U.S. and associated tax havens (Bermuda and the Cayman Islands) accounted for 105 defaults in 2016, emerging markets had 32 defaults, Europe produced 14, and the nations in the Other Developed category had 11.
- Missed interest or principal payments accounted for the largest number of defaults in 2016 (42%), followed by debt/distressed exchanges, which accounted for another 33%. Chapter 11 and Chapter 15 filings--along with foreign bankruptcies--together accounted for another 14.8%.
- As of Dec. 31, 2016, the 12-month-trailing speculative-grade default rates had risen across most regions from a year earlier. The global speculative-grade default rate was 4.2% at the end of 2016 compared with 2.8% in 2015. By region, default rates were 5.1% in the U.S., 6.1% in Other Developed countries, and 3.6% in the emerging markets (see Table 7). Meanwhile, the default rate for Europe declined slightly to 1.9% from 2.1% in 2015.
- All of the 143 defaulters that we rated at the beginning of the year had speculative-grade ratings ('BB+' or lower) at that time. The remainder of the 2016 defaulters began the year without ratings or were first assigned ratings later in the year. None began the year rated investment grade.
- Of the entities that defaulted in 2016 (and that had ratings as of Jan. 1, 2016), we rated 77% 'B-' or lower at the start of the year.
- The volume of debt affected by 2016's defaults increased considerably from 2015. Based on outstanding debt volume, the largest defaulter in 2016 was Petroleos de Venezuela S.A. We downgraded the issuer to 'D'/'SD' on Oct. 25 following its announcement that it would conduct a distressed exchange across several outstanding notes. At the

time, the company had nearly \$20 billion in debt outstanding.

- Markets started 2016 on unsure footing, hindered by continued low oil prices and fears of stress in the Chinese economy. Amid these global concerns, speculative-grade bonds posted losses through February but rebounded and steadily improved over the rest of the year. At year end, U.S. speculative-grade corporate bonds returned nearly 17%.
- Driven by another year of heady growth in Chinese debt markets, new corporate issuance in 2016 hit an all-time high. The total amount of annual new issuance rose to \$3.93 trillion (over 12,526 issues) from \$3.53 trillion (10,911 issues) in 2015.
- Bond spreads in the U.S. shot up in the early portion of 2016, with both investment-grade and speculative-grade yields hitting their peaks in mid-February, only to both fall off consistently over the remainder of the year. At their highest points, investment-grade and speculative-grade spreads hit 223 basis points (bps) and 815 bps, respectively. They finished the year at 148.5 bps and 405 bps.
- Outstanding debt volume affected by defaults rose in 2016 to \$239.8 billion from \$110.3 billion in 2015. This increase over the prior year was relatively pronounced considering the smaller increase in the number of defaulters. However, at \$1.48 billion per defaulter, this is consistent with the average in recent years--as opposed to 2015, when there was less than \$1 billion in outstanding debt per default (see Chart 6).
- Overall, ratings stability dropped somewhat in 2016 from a year earlier. The main driver of the overall percentage of changed ratings (30.1% in 2016 compared to 28.6% in 2015) was the increased default rate. That said, although stability rates by rating category have declined somewhat, they're still high by historical averages and continue to demonstrate a positive correlation with ratings.
- The percentage of defaulters with confidential ratings in 2016 remained below the trend of recent years. Of the 162 defaulters, 14 (8.6%) had confidential issuer credit ratings. By contrast, in 2013, confidentially rated issuers accounted for twice as much of the annual total.
- Eight of the defaulters in 2016 were initially rated 'BBB-' or higher, and the other 154 (95% of the total) had initial ratings of 'BB+' or lower.
- Of the defaulted entities in 2016 that S&P Global Ratings initially rated investment grade, the average time to default--the time between first rating and date of default--was 14 years, with an associated standard deviation of 12 years.
- In contrast, the average time to default among entities initially rated 'BB+' or lower was 5.4 years, with an associated standard deviation of five years.
- For all of the issuers that defaulted in 2016, the average time to default from the first rating was 5.8 years, with a median of 3.9 years and a standard deviation of 5.8 years.
- The issuer with the longest time to default in 2016 was U.S.-based Maxus Energy Corp. (no longer rated), which took 35.5 years to default from the initial rating in our data set of 'A-' as of Dec. 31, 1980. Maxus received this rating on June 22, 1979, a downgrade following the initial rating of 'A' on Nov. 7, 1975. Because of population size limitations, we begin our analysis in 1981. Regardless, this is our longest-lived defaulter yet in the 36 years covered by this study--a demonstration of the severity of the difficulties the energy and natural resources sector has faced in recent years.
- At the opposite end of the spectrum, the issuer with the shortest time to default (21 days) was Chesapeake Energy Corp. This was the second of the issuer's three defaults in 2016, and all three defaults were due to distressed exchanges. We consider companies that reemerge from default--including from distressed exchanges--as new entities for the purposes of this study.
- Despite an overall increase in defaults in 2016, the insurance sector managed to avoid any. The industry with the largest number of defaulters last year was energy and natural resources, with 82 (51% of the total). This is the third consecutive year that the sector contributed the most to the total. This is also the highest annual percentage of

defaults to originate in one industry.

- At the issuer level, S&P Global Ratings assigned initial ratings to 717 entities in 2016, up from 665 in 2015 but still well below both 2013 (896) and 2014 (918). The increase in 2016 stemmed exclusively from growth in new speculative-grade issuer ratings (535 compared to 464 in 2015); the number of new investment-grade ratings fell to 182 from 201.

Annual Global Trends

The number of defaulters that began the year with active ratings in 2016 was noticeably higher than in 2015, hitting its highest point since the global financial downturn of 2009 (see Chart 5). Interestingly, the increase in the number of actively rated defaults (49) was exactly the same increase in 2015 over 2014. With an increase in the number of defaults in 2016, the amount of affected debt also rose, more than doubling to \$240 billion from \$110.3 billion in 2015 (see Chart 6). Consistent with historical trends, the U.S. accounted for the majority of defaults in 2016--by both count and amount of affected debt. This is mostly attributable to the larger rated population in the U.S. (roughly 47% of the global total at the start of 2016). In recent years, emerging markets have contributed a growing share to the global default total, reaching 25% in 2014. And despite seeing an increase in the absolute number of defaults from emerging markets in 2016 (32 compared with 26 in 2015), the difficulties the U.S. oil and gas sector faced in 2016 were so extensive and widespread that the share of defaults coming from the U.S. reached 65%, the highest proportion of the total since 2011.

While the overall default rate rose by a proportionately wide margin compared to 2015, both upgrades and downgrades also increased--but by a much lesser extent (see Table 6). With the downgrade ratio finishing at 12.2% and the upgrade ratio at 7.9%, the downgrade-to-upgrade ratio fell slightly, to 1.5 in 2016 from 1.6 in 2015. A ratio of 1 indicates that the percentages of upgrades and downgrades are equal. August was the only month of the year when the numbers of upgrades and downgrades were equal; downgrades predominated in every other month, but in most months this difference was not especially large. The notable exception to this was February, which had 293 downgrades globally, with 45 of these coming from U.S. speculative-grade oil and gas exploration and production companies. These downgrades resulted from our downward revisions to our oil and natural gas price assumptions in January. Another 77 downgrades in February came from a wide swath of industries in Brazil, largely the result of the sovereign downgrade amid numerous economic headwinds and a deteriorating fiscal position.

Table 5

Largest Global Rated Defaulters By Year

Largest corporate defaulters by outstanding debt amount		
Year of default	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

Table 5

Largest Global Rated Defaulters By Year (cont.)

Largest corporate defaulters by outstanding debt amount		
Year of default	Issuer	Amount (Mil. \$)
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
2015	Arch Coal Inc.	6,025
2016	Petroleos de Venezuela S.A.	19,859

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Chart 5

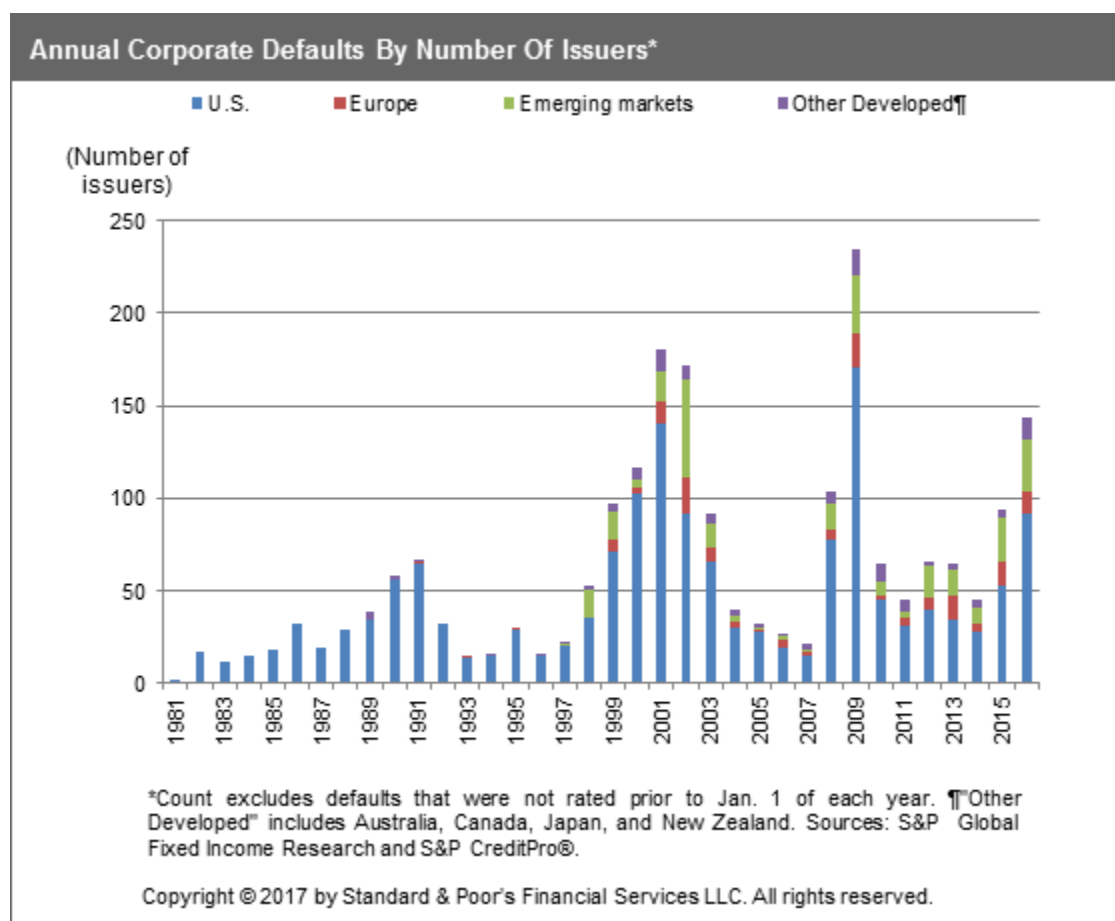


Chart 6

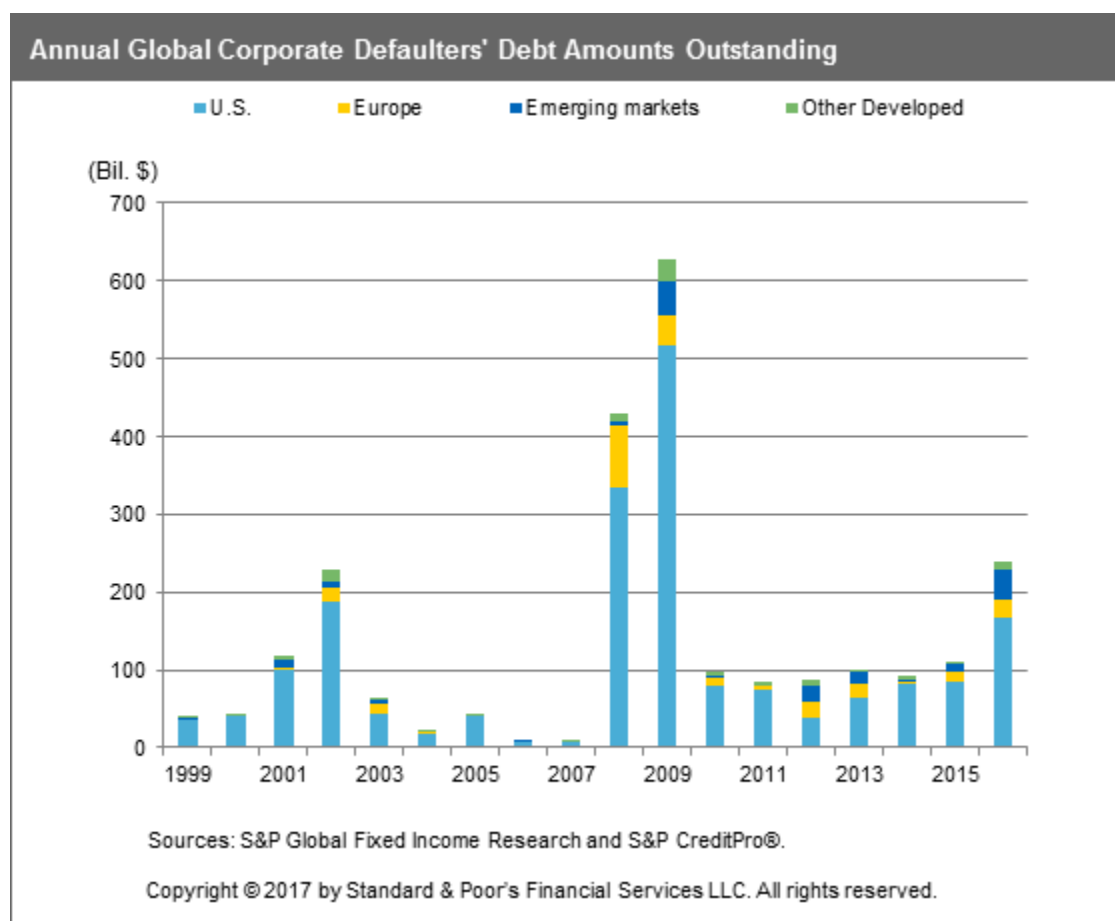


Table 6

Summary Of Annual Corporate Rating Changes* (%)								
	Number of 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	2,144	9.56	11.47	1.49	3.96	26.49	73.51	1.20
1993	2,327	8.55	9.24	0.60	8.34	26.73	73.27	1.08
1994	2,558	7.08	9.34	0.63	4.61	21.66	78.34	1.32

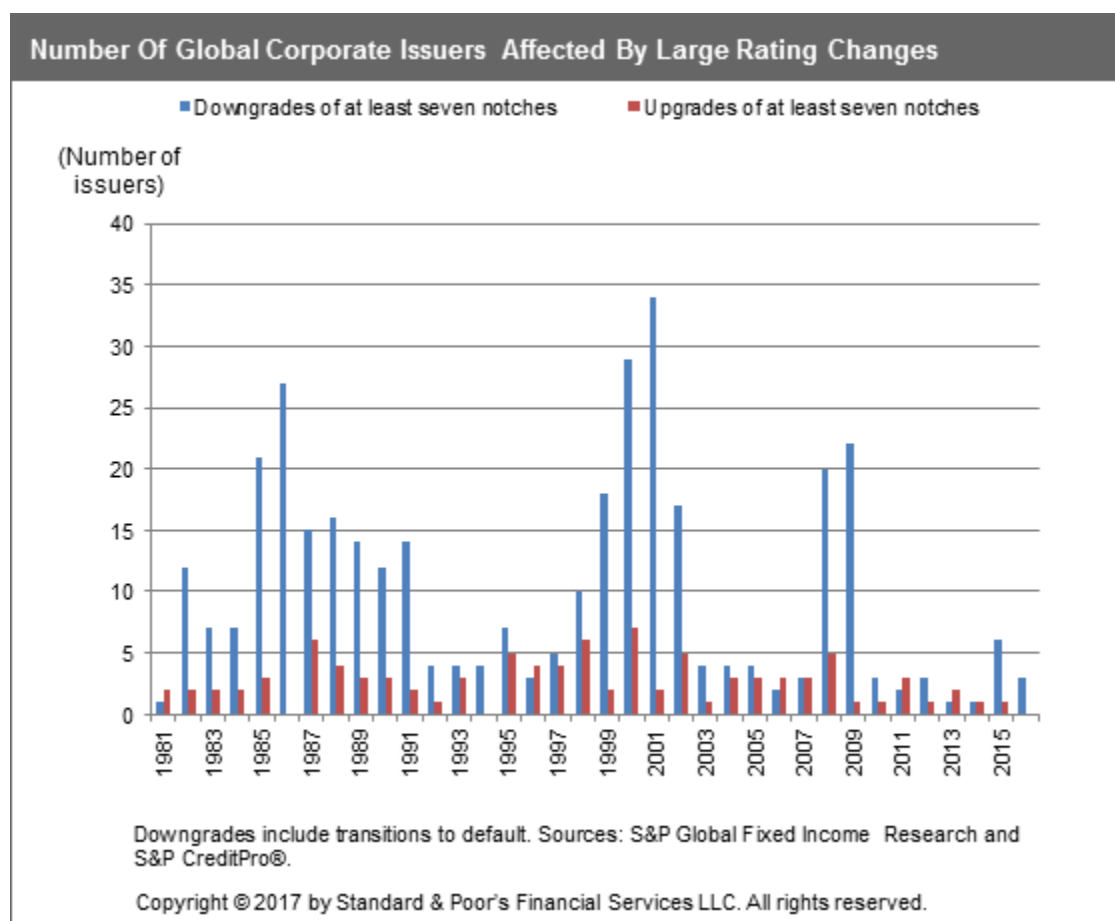
Table 6

Summary Of Annual Corporate Rating Changes* (%) (cont.)								
	Number of issuers as of Jan. 1	Upgrades	Downgrades¶	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
1995	2,868	9.10	9.87	1.05	4.60	24.62	75.38	1.08
1996	3,128	9.72	7.80	0.51	7.03	25.06	74.94	0.80
1997	3,488	9.20	7.94	0.63	7.57	25.34	74.66	0.86
1998	4,076	7.53	11.60	1.28	7.97	28.39	71.61	1.54
1999	4,527	5.92	12.04	2.14	9.06	29.16	70.84	2.03
2000	4,680	6.86	12.65	2.48	7.12	29.10	70.90	1.84
2001	4,756	5.99	16.61	3.78	7.53	33.92	66.08	2.77
2002	4,786	5.20	19.16	3.59	7.23	35.19	64.81	3.68
2003	4,784	6.48	14.59	1.92	7.34	30.33	69.67	2.25
2004	5,019	8.77	7.59	0.78	7.25	24.39	75.61	0.87
2005	5,309	12.88	9.21	0.60	8.48	31.17	68.83	0.71
2006	5,465	12.31	8.75	0.48	8.75	30.28	69.72	0.71
2007	5,651	13.54	9.29	0.37	10.62	33.82	66.18	0.69
2008	5,733	7.94	16.01	1.80	7.71	33.46	66.54	2.02
2009	5,620	4.80	19.13	4.18	8.88	36.99	63.01	3.98
2010	5,312	11.90	8.79	1.20	6.51	28.41	71.59	0.74
2011	5,633	12.23	12.00	0.80	7.85	32.88	67.12	0.98
2012	5,807	8.40	12.31	1.14	6.91	28.76	71.24	1.47
2013	6,044	11.43	9.40	1.06	6.72	28.61	71.39	0.82
2014	6,489	9.20	8.48	0.69	7.15	25.52	74.48	0.92
2015	6,912	7.38	11.78	1.36	8.33	28.85	71.15	1.60
2016	6,928	7.92	12.18	2.06	8.34	30.51	69.49	1.54
Weighted average		8.73	11.85	1.52	7.40	29.50	70.50	1.56
Average		8.53	11.91	1.46	6.88	28.78	71.22	1.57
Median		8.17	11.82	1.16	7.24	28.80	71.20	1.41
Standard deviation		2.27	3.00	1.01	1.93	3.48	3.48	0.80
Minimum		4.80	7.59	0.14	2.02	21.66	63.01	0.69
Maximum		13.54	19.16	4.18	10.62	36.99	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: S&P Global Fixed Income Research and S&P CreditPro®.

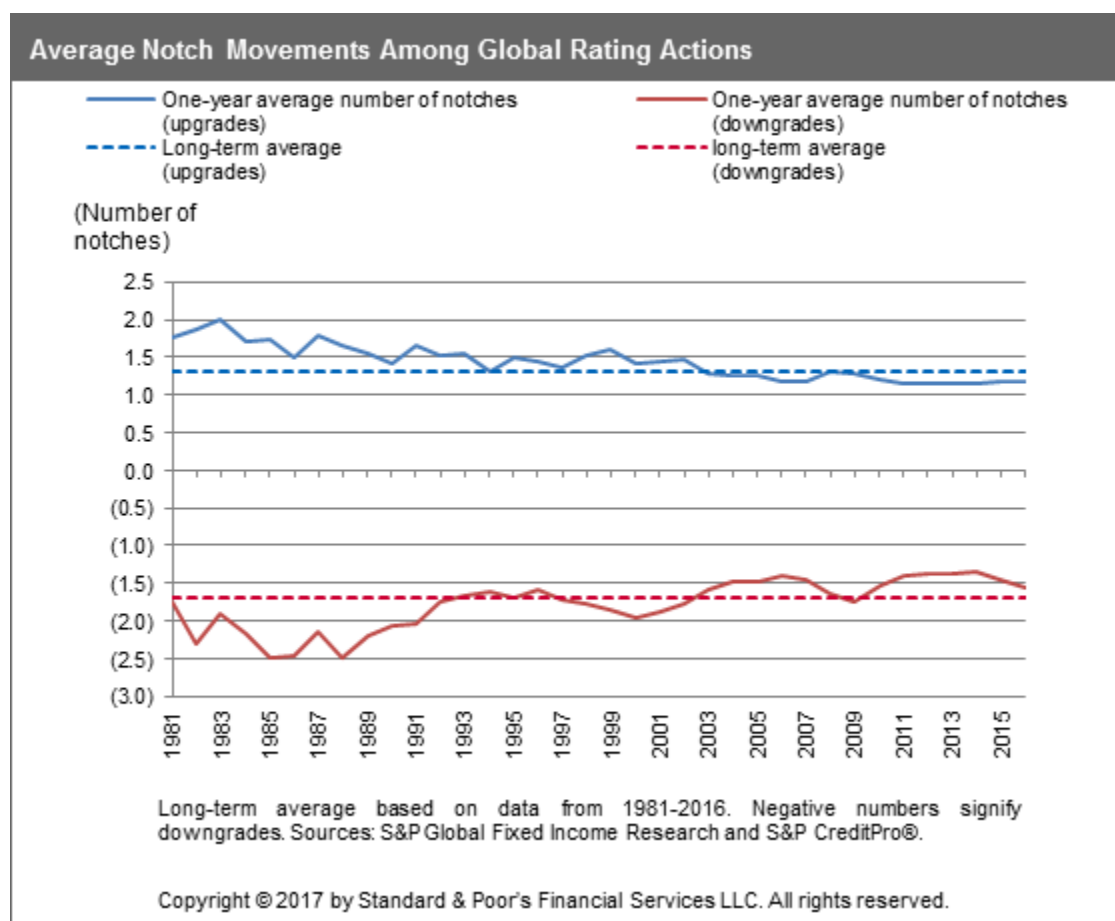
Ratings stability--as measured by the percentage of issuers with unchanged ratings over the course of a particular year--fell slightly in 2016. Despite this decline, the magnitude of large rating changes (which we define as a change of more than six notches) fell. The number of such actions declined to three downgrades in 2016 from seven (six downgrades and one upgrade) in 2015 (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 two issuers possessing a 'B' rating just prior to default and one defaulting from a 'B+' rating.

Chart 7



Considering that the large rating actions in 2016 were all downgrades, it is not surprising that the annual average number of notches of ratings changes for downgrades expanded as well (see Chart 8). At the end of 2016, the average number of notches for upgrades was 1.16 (compared with 1.18 in 2015), and the average notches for downgrades was 1.58 (1.46 in 2015).

Chart 8



Annual speculative-grade default rates increased in most major regions in 2016, though it declined slightly in Europe (see Table 7 and Chart 21). Interestingly, despite the dominance of the U.S. on the global total, the largest increase in the annual speculative-grade default rate came from the Other Developed region, the default rate of which more than doubled to 6.1% from 2.8% in 2015. Default activity in 2016 increased relative to the last few years and is now above long-term averages across most regions.

Table 7

Annual Corporate Speculative-Grade Default Rate By Geographic Region (%)				
	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
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

Table 7

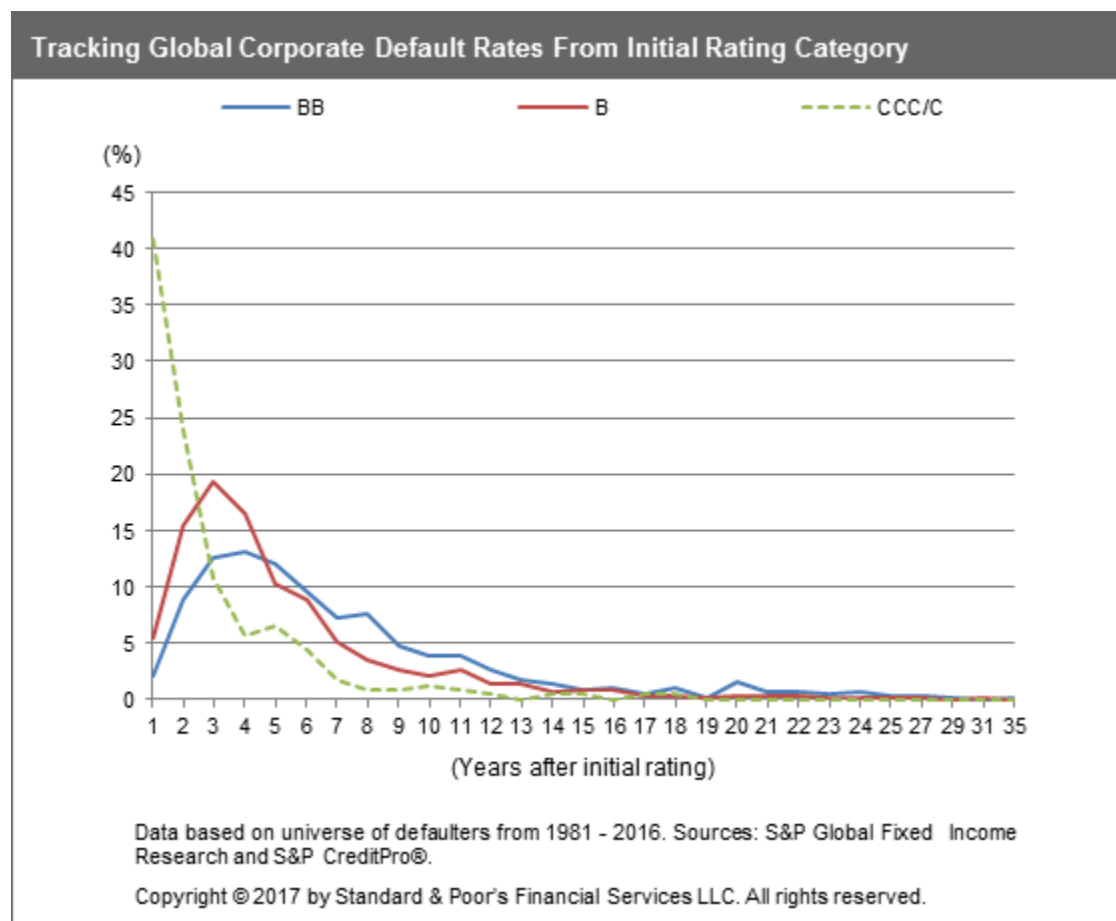
Annual Corporate Speculative-Grade Default Rate By Geographic Region (%) (cont.)				
	U.S. and tax havens*	Europe¶	Emerging markets	Other§
1990	7.94	0.00	N/A	33.33
1991	10.73	66.67	N/A	14.29
1992	6.25	0.00	N/A	0.00
1993	2.40	20.00	0.00	0.00
1994	2.20	0.00	0.00	0.00
1995	3.65	9.09	0.00	0.00
1996	1.85	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	2.54	1.66	6.52
2001	10.62	8.40	6.27	12.36
2002	7.26	12.50	17.61	5.94
2003	5.60	3.68	3.93	4.76
2004	2.45	1.60	0.85	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	11.74	8.67	5.47	9.60
2010	3.45	1.01	1.56	7.96
2011	2.14	1.59	0.47	6.14
2012	2.64	2.24	2.63	2.33
2013	2.18	3.43	2.00	1.97
2014	1.60	0.97	1.05	2.82
2015	2.83	2.10	3.07	2.78
2016	5.09	1.90	3.57	6.11
Average	4.22	3.00	3.32	4.28
Median	3.39	1.90	2.00	2.82
Standard deviation	2.75	3.28	4.14	3.02
Minimum	0.63	0.00	0.00	0.76
Maximum	11.74	12.50	17.61	12.36

*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 the U.K. §Australia, Canada, Japan, and New Zealand. Descriptive statistics for regions other than U.S. are calculated from 1996 to 2016 due to sample-size considerations. N/A--Not applicable. Sources: S&P Global Fixed Income Research and S&P 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 9). For example, among defaulters that were rated 'B' at origination, the default rate climbs to a high of 19.3% 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. 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 9



In 2016, 105 (95.1%) of the 162 defaulted entities were originally rated speculative grade, which is more than eight percentage points higher than the long-term average of 86.96%. 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 10). The median rating for all recently defaulted entities was solidly in the speculative-grade category in the seven years preceding default, and for most of 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 11). 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. But now that about eight years have passed since the crisis, even the recent defaulters among financials had a speculative-grade median rating seven years prior to default. Conversely, nonfinancial defaulters tend to have a much smoother and shorter path to default (see Chart 12). 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, 2016, 299 nonfinancial

companies defaulted, while only 36 financials did. This helps to explain the more volatile path to default among financial institutions and insurance companies.

Chart 10

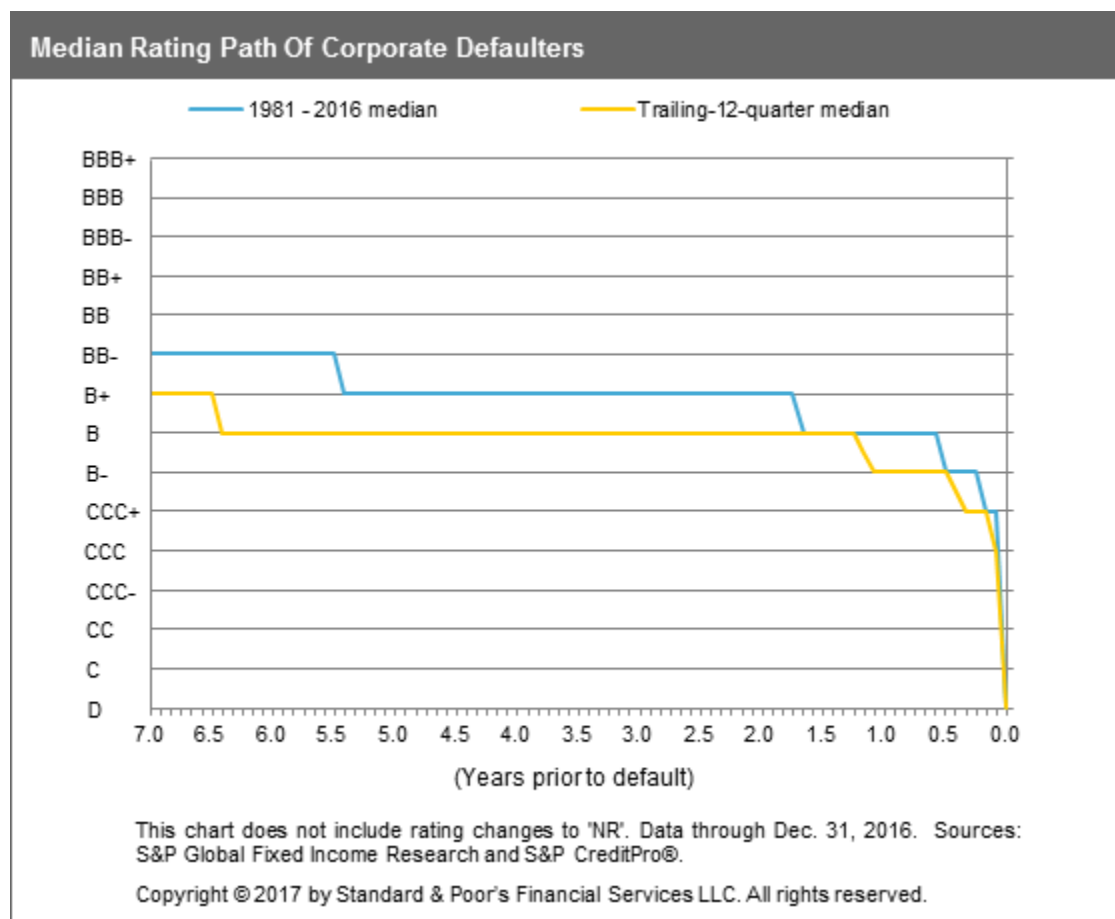


Chart 11

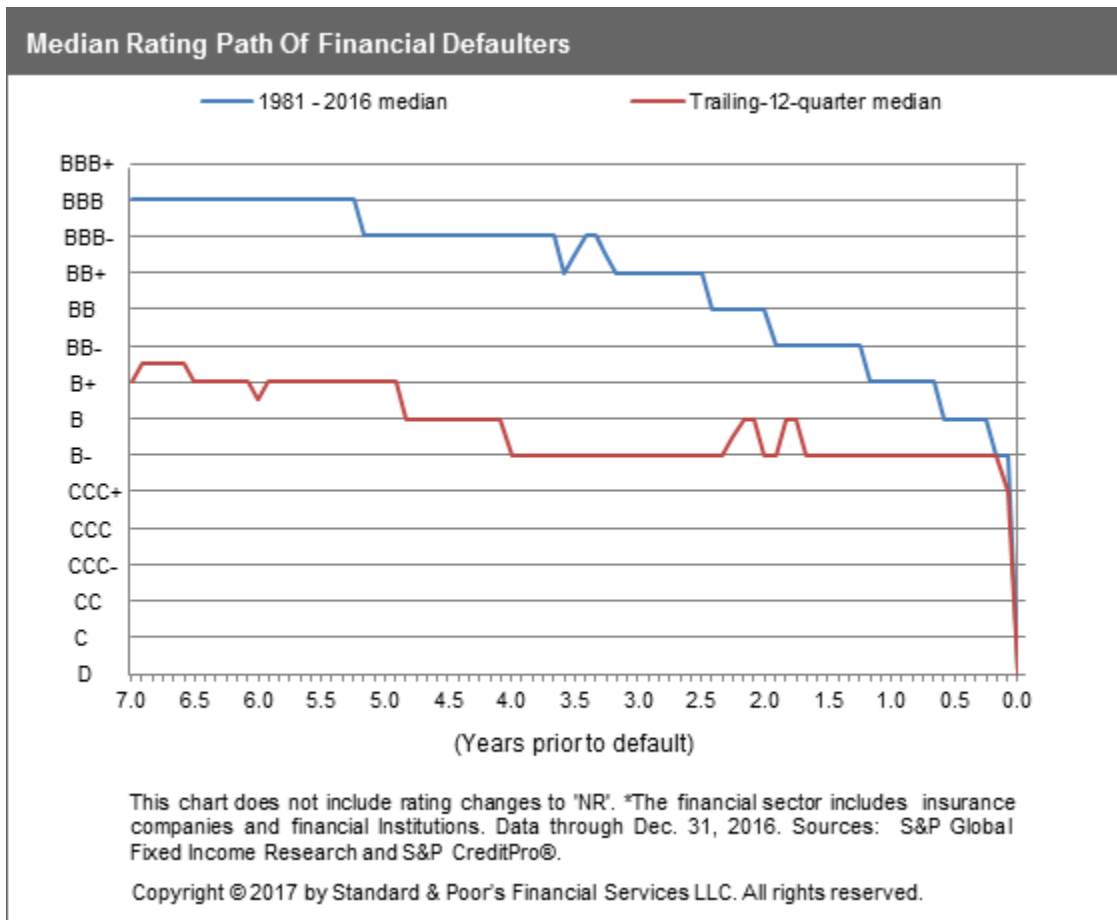


Chart 12

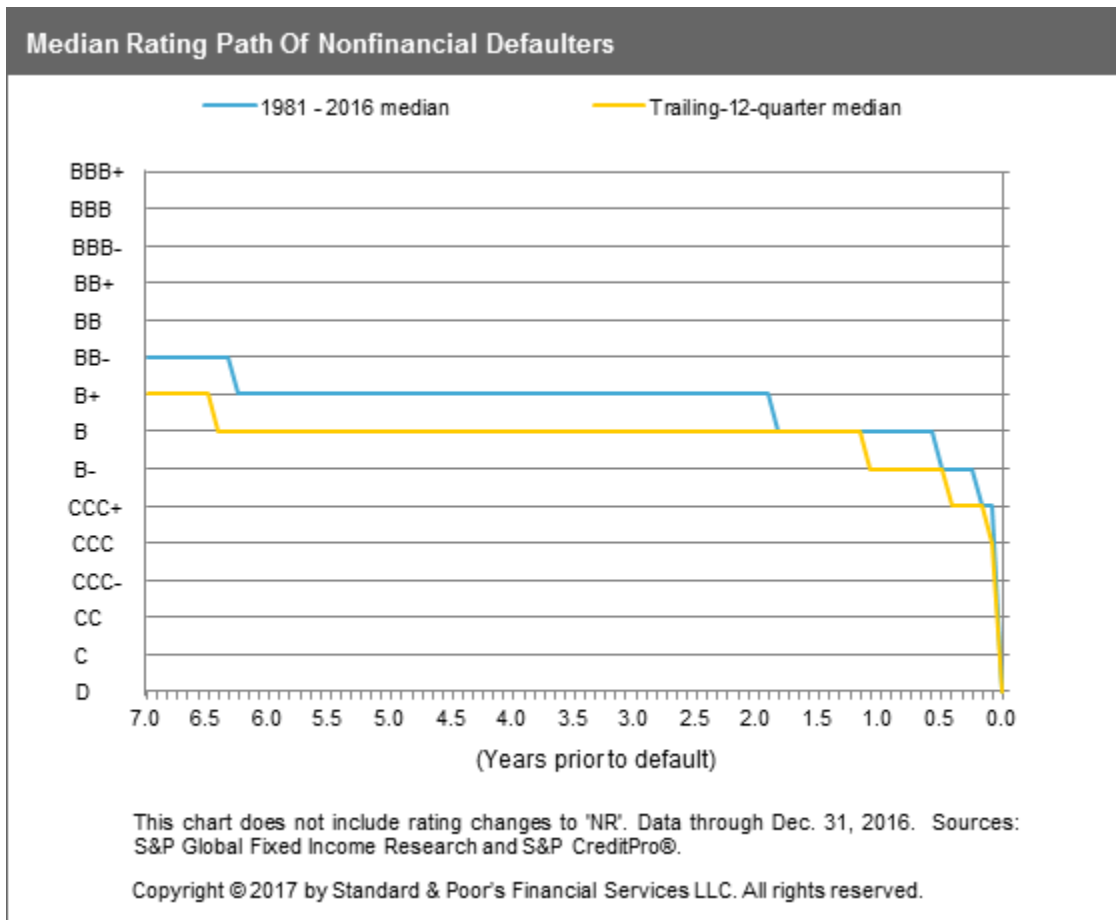


Chart 13A

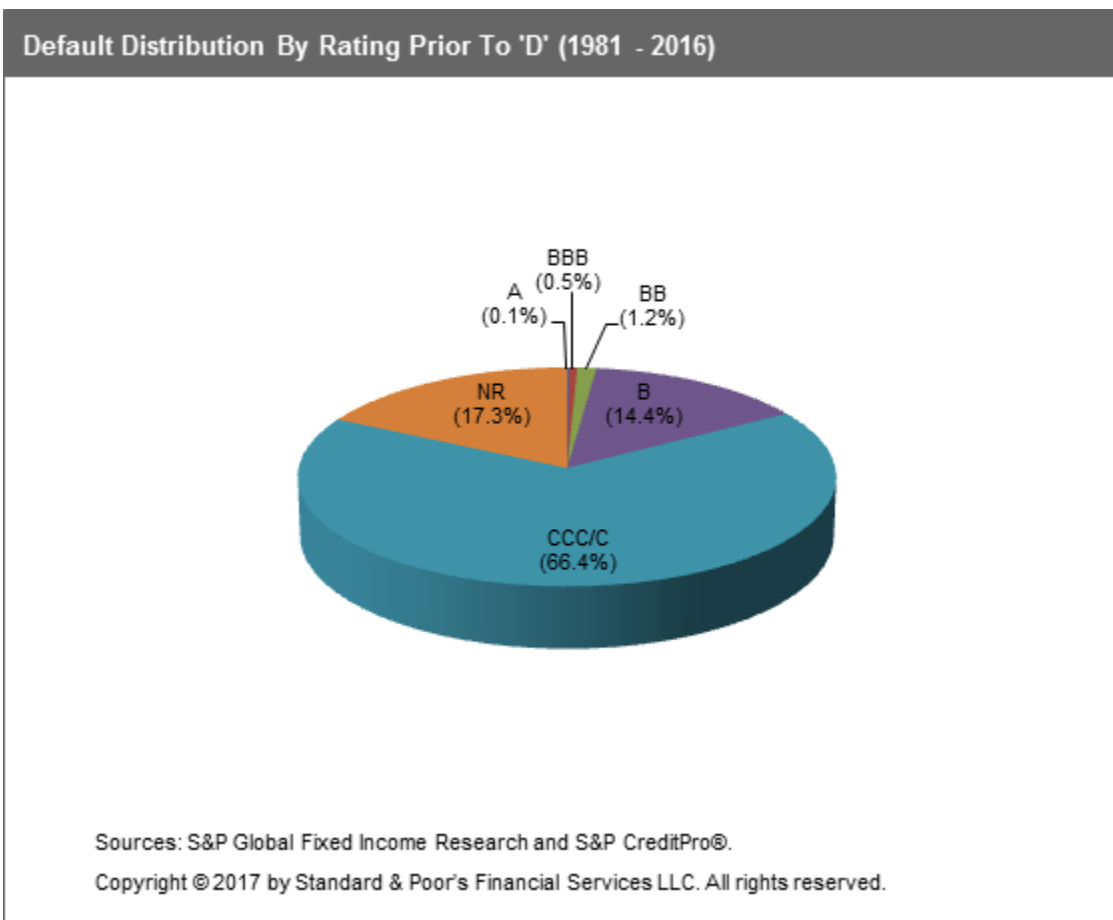
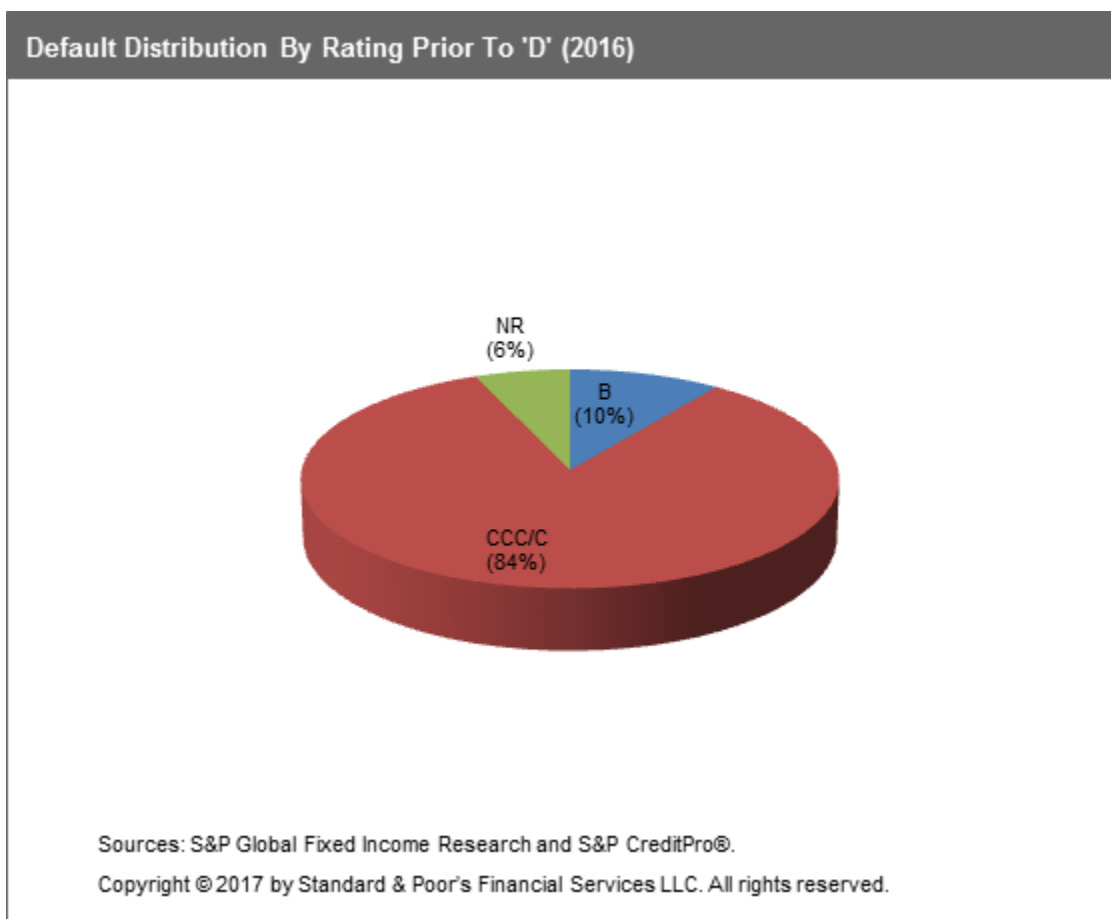


Chart 13B



Some issuers default after 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 do not include the issuer in the default rate calculation in that year. Of the 162 defaulted companies in 2016, 6.2% were not rated just prior to default, which is considerably lower than the long-term total of 17.3% (see Chart 13). 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, which are tied back to the year in which defaulters were last rated. All of the defaulters in 2016 that had active ratings immediately prior to default were rated in the lowest rating categories. Specifically, 84% were rated 'CCC+' or lower just prior to default, which is much higher than the 66.4% long-term total.

Table 8 provides a list of all the defaulted, publicly rated companies recorded in 2016. For additional details on the 2016 defaulters, see Appendix III.

Table 8

2016 Global Publicly Rated Corporate Defaults									
Company	Reason for default	Country	Industry	Debt outstanding (Mil. \$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Aretec Group Inc.	Missed	U.S.	Financial institutions	725.0	1/6/2016	B	-	B+	3/3/2014
Ultrapetrol (Bahamas) Ltd.	Missed	Bahamas	Transportation	225.0	1/18/2016	B	B-	BB-	3/11/1998
Horsehead Holding Corp.	Missed	U.S.	Energy and natural resources	205.0	1/20/2016	B-	B-	B-	8/1/2012
Pacific Exploration and Production Corp	Missed	Canada	Energy and natural resources	4,509.2	1/20/2016	BB+	BB	B+	11/3/2009
Slap Shot Holdings Corp. and Subsidiaries (d/b/a Sports Authority)	Missed	U.S.	Consumer/service sector	300.0	1/20/2016	B-	-	B-	5/29/2014
Verso Paper Holdings LLC	Missed	U.S.	Forest and building products/homebuilders	2,506.7	1/22/2016	-	-	B-	6/29/2015
Murray Energy Corp.	Dist. Ex.	U.S.	Energy and natural resources	5,970.0	1/29/2016	B+	B	B	10/16/2009
Constellation Enterprises LLC	Dist. Ex.	U.S.	Aerospace/automotive/capital goods/metal	130.0	2/2/2016	CCC+	B	B	3/11/2011
SFX Entertainment Inc.	Ch. 11	U.S.	Leisure tme/media	270.0	2/2/2016	B-	-	B-	3/5/2014
Sheridan Investment Partners I LLC	De facto rest.	U.S.	Financial institutions	1,255.0	2/2/2016	B+	-	B+	12/4/2013
Sheridan Investment Partners II LP	De facto rest.	U.S.	Financial institutions	1,650.0	2/2/2016	B+	-	B+	12/4/2013
Comstock Resources Inc.	Dist. Ex.	U.S.	Energy and natural resources	1,400.0	2/4/2016	B	B	B+	6/11/1998
Noranda Aluminum Holding Corp.	Ch. 11	U.S.	Energy and natural resources	656.5	2/8/2016	B-	B	CCC+	7/15/2009
A.M. Castle & Co.	Debt ex.	U.S.	Energy and natural resources	210.0	2/9/2016	B-	B+	B+	1/5/2012
CB Intercommerz Ltd.	F. bank	Russian Federation	Financial institutions	0.0	2/9/2016	B-	B-	B-	3/7/2012
Paragon Offshore PLC	Ch. 11	U.S.	Energy and natural resources	2,530.0	2/12/2016	BB-	-	BB	6/23/2014
Energy XXI Ltd	Missed	Bermuda	Energy and natural resources	4,260.0	2/16/2016	B	B+	CCC+	12/7/2009
Denver Parent Corporation	Missed	U.S.	Energy and natural resources	750.0	2/17/2016	CCC+	-	B-	8/8/2013
PetroQuest Energy Inc.	Debt ex.	U.S.	Energy and natural resources	350.0	2/18/2016	B	B	CCC+	4/29/2005
Chaparral Energy Inc.	Missed	U.S.	Energy and natural resources	1,250.0	3/2/2016	B	B	B+	11/14/2005
Prospect Holding Company LLC	Dist. Ex.	U.S.	Financial institutions	150.0	3/8/2016	B	-	B+	9/11/2013
Town Sports International Holdings Inc.	Dist. Ex.	U.S.	Leisure tme/media	780.0	3/8/2016	B	B+	B	1/26/2004
Aspect Software Inc.	Ch. 11	U.S.	High tech/computers/office equipment	830.0	3/10/2016	B-	B-	B	9/7/2005
Linn Energy LLC	Missed	U.S.	Energy and natural resources	7,800.0	3/15/2016	BB-	B+	B+	6/16/2008
Foresight Energy L.P.	Missed	U.S.	Aerospace/automotive/capital goods/metal	1,660.0	3/17/2016	B+	B	B-	8/4/2010

Table 8

2016 Global Publicly Rated Corporate Defaults (cont.)

Company	Reason for default	Country	Industry	Debt outstanding (Mil. \$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Nuverra Environmental Solutions Inc.	Dist. Ex.	U.S.	Health care/chemicals	400.0	3/17/2016	B-	B+	B+	4/12/2012
Peabody Energy Corp.	Missed	U.S.	Aerospace/automotive/capital goods/metal	10,592.5	3/18/2016	BB-	BB+	BB-	5/11/1998
UCI Holdings Ltd.	Missed	U.S.	Aerospace/automotive/capital goods/metal	0.0	3/22/2016	B-	B	B	8/19/2011
Usinas Siderurgicas de Minas Gerais S.A.	Missed	Brazil	Aerospace/automotive/capital goods/metal	842.9	3/22/2016	BB	BB+	BB-	1/14/2004
American Media Inc.	Dist. Ex.	U.S.	Leisure tme/media	489.9	3/23/2016	CCC	-	CCC	9/19/2014
Templar Energy LLC	Missed	U.S.	Energy and natural resources	2,000.0	3/23/2016	B	-	B	11/7/2013
Mongolian Mining Corp.	Missed	Mongolia	Energy and natural resources	600.0	3/24/2016	CCC+	B+	B+	3/14/2012
PDG Realty S.A. Empreendimentos E Participacoes	Missed	Brazil	Real estate	307.1	3/24/2016	B	BB-	BB-	12/28/2010
Southcross Holdings Borrower LP	Ch. 11	U.S.	Energy and natural resources	1,225.0	3/28/2016	B-	-	B-	7/10/2014
SquareTwo Financial Corp.	Missed	U.S.	Financial institutions	290.0	4/1/2016	B-	B	B	3/24/2010
Midstates Petroleum Co. Inc.	Missed	U.S.	Energy and natural resources	2,449.1	4/4/2016	-	-	B-	6/2/2015
Rex Energy Corp.	Dist. Ex.	U.S.	Energy and natural resources	675.0	4/4/2016	B-	B	B	11/13/2012
Ultra Petroleum Corp	Def. int.	U.S.	Energy and natural resources	1,300.0	4/4/2016	BB	-	BB	12/2/2013
UkrLandFarming PLC	Missed	Ukraine	Consumer/service sector	500.0	4/8/2016	CC	B-	B-	3/12/2013
Government Development Bank for Puerto Rico	Reg. dir.	U.S.	Financial institutions	4,916.5	4/11/2016	B-	BBB-	A+	8/9/1989
Cliffs Natural Resources Inc.	Dist. Ex.	U.S.	Energy and natural resources	3,984.0	4/12/2016	B	BBB-	BBB-	9/8/2008
Vertellus Specialties Inc.	Missed	U.S.	Health care/chemicals	930.0	4/12/2016	B-	B-	B	9/22/2010
Norske Skogindustrier ASA	Dist. Ex.	Norway	Forest and building products/homebuilders	1,119.9	4/13/2016	CCC+	-	CCC+	3/6/2015
Logan's Roadhouse Inc.	Missed	U.S.	Consumer/service sector	396.1	4/18/2016	-	-	CCC+	10/29/2015
CHC Group Ltd.	Missed	U.K.	Energy and natural resources	1,975.0	4/19/2016	B	-	B+	12/8/2014
Edcon Holdings Ltd.	Missed	South Africa	Consumer/service sector	2,236.9	4/19/2016	-	-	CCC+	2/2/2016
Odebrecht Oleo e Gas S.A.	Missed	Brazil	Energy and natural resources	550.0	4/20/2016	BB-	-	BBB-	6/3/2014
Penn Virginia Corp.	Missed	U.S.	Energy and natural resources	1,375.0	4/20/2016	B+	B	BB-	6/4/2009
Community Choice Financial	Dist. Ex.	U.S.	Financial institutions	395.0	4/22/2016	B-	B-	B	4/6/2006
Trident Resources Corp.	Missed	Canada	Energy and natural resources	137.5	4/22/2016	CCC+	B-	B-	4/1/2011

Table 8

2016 Global Publicly Rated Corporate Defaults (cont.)

Company	Reason for default	Country	Industry	Debt outstanding (Mil. \$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
White Star Petroleum LLC	Dist. Ex.	U.S.	Energy and natural resources	587.6	4/28/2016	-	-	CCC+	6/26/2015
ION Geophysical Corp.	Dist. Ex.	U.S.	Energy and natural resources	175.0	4/29/2016	B-	NR	BB-	11/11/2008
Perpetual Energy Inc.	Dist. Ex.	Canada	Energy and natural resources	219.1	4/29/2016	B-	CCC+	B	3/1/2011
Fairway Group Holdings Corp.	Ch. 11	U.S.	Leisure tme/media	315.0	5/3/2016	B-	-	B-	9/20/2013
Fairmount Santrol Inc	De facto rest.	U.S.	Energy and natural resources	1,351.0	5/5/2016	BB-	BB-	BB-	7/16/2010
RGL Reservoir Management Inc.	Dist. Ex.	Canada	Energy and natural resources	516.0	5/5/2016	B	-	B	7/25/2014
Claire's Stores Inc.	Dist. Ex.	U.S.	Consumer/service sector	2,555.0	5/6/2016	CCC	B-	B	5/3/2007
Atlas Iron Ltd.	Debt ex.	Australia	Energy and natural resources	135.0	5/9/2016	CCC	B+	B+	11/8/2012
USJ Acucar e Alcool S/A	Missed	Brazil	Consumer/service sector	275.0	5/10/2016	B+	BB-	BB-	10/24/2012
Denbury Resources Inc.	Dist. Ex.	U.S.	Energy and natural resources	6,320.9	5/12/2016	BB	BB	B+	1/27/1998
Intelsat S.A.	Dist. Ex.	Luxembourg	High tech/computers/office equipment	14,905.0	5/12/2016	B	B	A	3/21/2001
Chesapeake Energy Corp.	Dist. Ex.	U.S.	Energy and natural resources	9,605.6	5/13/2016	BB+	BB-	B	5/15/1995
Permian Resources LLC	Dist. Ex.	U.S.	Energy and natural resources	1,522.0	5/13/2016	B-	-	B	7/9/2014
Breitbart Energy Partners	Ch. 11	U.S.	Energy and natural resources	3,655.0	5/16/2016	B+	B+	B+	9/24/2010
SandRidge Energy Inc.	Ch. 11	U.S.	Energy and natural resources	4,700.0	5/16/2016	-	-	CCC-	3/17/2016
Stone Energy Corp.	Missed	U.S.	Energy and natural resources	1,000.0	5/17/2016	B	B	B+	9/12/1997
Constellation Enterprises LLC	Dist. Ex.	U.S.	Aerospace/automotive/capital goods/metal	130.0	5/18/2016	-	-	CCC-	2/3/2016
Seventy Seven Energy Inc.	Missed	U.S.	Energy and natural resources	1,650.0	5/18/2016	B	BB-	BB+	10/19/2011
Tervita Corp.	Missed	Canada	Energy and natural resources	2,043.5	5/18/2016	B-	B-	B+	10/22/2007
Arendal S. de R.L. de C.V.	Missed	Mexico	Aerospace/automotive/capital goods/metal	100.0	5/23/2016	B-	B	B	11/30/2012
Camposol S.A.	Dist. Ex.	Peru	Consumer/service sector	52.5	5/25/2016	B	B	B	1/18/2012
New World Resources N.V.	Insolvency	U.K.	Energy and natural resources	1,199.6	5/26/2016	CCC+	-	CCC+	10/17/2014
The Gymboree Corp.	Dist. Ex.	U.S.	Consumer/service sector	991.0	5/27/2016	CCC+	B-	B+	2/9/2011
Linc USA GP	Ch. 11	U.S.	Energy and natural resources	265.0	5/29/2016	NR	B-	B-	9/21/2012
Rolta India Ltd.	Missed	India	High tech/computers/office equipment	494.4	5/31/2016	BB-	BB-	BB-	4/30/2013
Bill Barrett Corp.	Dist. Ex.	U.S.	Energy and natural resources	1,222.5	6/6/2016	B+	BB-	BB-	6/24/2009
Hercules Offshore Inc.	Ch. 11	U.S.	Energy and natural resources	1,950.0	6/6/2016	-	-	CCC+	11/10/2015

Table 8

2016 Global Publicly Rated Corporate Defaults (cont.)

Company	Reason for default	Country	Industry	Debt outstanding (Mil. \$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Far-Eastern Shipping Co. PLC	Missed	Russian Federation	Transportation	800.0	6/7/2016	-	-	B-	6/23/2015
Chesapeake Energy Corp.	Dist. Ex.	U.S.	Energy and natural resources	3,758.0	6/9/2016	-	-	CCC	5/19/2016
Cenveo Inc.	Dist. Ex.	U.S.	Leisure tme/media	1,005.5	6/10/2016	B-	B	BB-	10/2/1997
Fieldwood Energy LLC	Dist. Ex.	U.S.	Energy and natural resources	3,143.0	6/13/2016	B	-	B	9/10/2013
Harvest Operations Corp.	Dist. Ex.	Canada	Energy and natural resources	1,130.0	6/14/2016	B	BB-	BB-	5/20/2010
Barmingo Holdings Pty Limited	De facto rest.	Australia	Aerospace/automotive/capital goods/metal	375.1	6/15/2016	B-	B-	B-	5/30/2013
Lightstream Resources Ltd.	Missed	Canada	Energy and natural resources	335.0	6/16/2016	-	-	B-	7/10/2015
Maxus Energy Corp.	Ch. 11	U.S.	Energy and natural resources	0.0	6/17/2016	NR	NR	A-	12/31/1980
Oi S.A.	Ch. 15	Brazil	Telecommunications	9,596.0	6/21/2016	BB+	BBB-	BBB-	9/6/2011
Consolidated Minerals Ltd. (Jersey)	Missed	Jersey	Aerospace/automotive/capital goods/metal	400.0	6/22/2016	B	B-	BB-	4/12/2011
Hammons (John Q.) Hotels L.P.	Ch. 11	U.S.	Leisure tme/media	0.0	6/26/2016	NR	NR	BB-	1/27/1994
C&J Energy Services Ltd.	Missed	Bermuda	Energy and natural resources	1,460.0	7/1/2016	B+	-	BB-	11/14/2014
Triangle USA Petroleum Corp.	Ch. 11	U.S.	Energy and natural resources	450.0	7/1/2016	B	-	B	7/9/2014
Gol Linhas Aereas Inteligentes S.A.	Dist. Ex.	Brazil	Aerospace/automotive/capital goods/metal	1,078.7	7/4/2016	B	B	BB-	5/19/2010
MD America Energy LLC	Dist. Ex.	U.S.	Energy and natural resources	525.0	7/5/2016	B-	-	B-	7/8/2014
FTS International Inc.	Dist. Ex.	U.S.	Energy and natural resources	1,400.0	7/6/2016	B-	-	B-	11/4/2013
Goodman Networks Inc.	Missed	U.S.	Telecommunications	325.0	7/7/2016	B-	B	B+	6/8/2011
Transtar Holding Co.	Missed	U.S.	Transportation	725.0	7/15/2016	B	B	B-	4/28/1994
Atlas Resource Partners L.P.	Missed	U.S.	Energy and natural resources	275.0	7/18/2016	B	B	B	1/10/2013
Forbes Energy Services Ltd.	Missed	U.S.	Energy and natural resources	280.0	7/19/2016	B	B	CCC+	5/18/2011
International Shipholding Corp.	Ch. 11	U.S.	Transportation	0.0	8/1/2016	NR	NR	BB+	5/24/1993
Usina Caete S.A. - NE	Missed	Brazil	Consumer/service sector	89.5	8/1/2016	B-	BB-	BB-	6/20/2013
PTC Group Holdings Corp.	Missed	U.S.	Energy and natural resources	0.0	8/3/2016	B-	B	B	12/26/2012
CNG Holdings Inc.	De facto rest.	U.S.	Financial institutions	400.0	8/5/2016	B-	B	B	1/25/2010
LTR Holdco Inc.	Missed	U.S.	Energy and natural resources	0.0	8/9/2016	B	-	B	7/9/2014
Vanguard Natural Resources LLC	Dist. Ex.	U.S.	Energy and natural resources	550.0	8/11/2016	B+	B+	B	3/26/2012

Table 8

2016 Global Publically Rated Corporate Defaults (cont.)

Company	Reason for default	Country	Industry	Debt outstanding (Mil. \$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Bonanza Creek Energy Inc.	Missed	U.S.	Energy and natural resources	800.0	8/18/2016	B	B	B	4/3/2013
Sterling Mid-Holdings Ltd.	Dist. Ex.	Jersey	Financial institutions	0.0	8/18/2016	B-	-	B	6/6/2014
Sidewinder Drilling Inc.	Dist. Ex.	U.S.	Utility	250.0	8/23/2016	CCC+	B-	B-	10/19/2012
California Resources Corporation	Dist. Ex.	U.S.	Energy and natural resources	6,821.0	8/24/2016	BB+	-	BB+	9/5/2014
American Gilsonite Co.	Missed	U.S.	Energy and natural resources	270.0	9/2/2016	B-	B-	B	8/15/2012
Key Energy Services Inc.	Missed	U.S.	Energy and natural resources	990.0	9/8/2016	B	BB-	B+	1/11/1999
Modular Space Corp.	Missed	U.S.	Transportation	375.0	9/9/2016	B-	-	B-	2/18/2014
W&T Offshore Inc.	Dist. Ex.	U.S.	Energy and natural resources	1,200.0	9/9/2016	B	B	B	4/21/2006
Basic Energy Services Inc.	Missed	U.S.	Energy and natural resources	939.6	9/16/2016	B-	B+	B	10/28/2003
Golfsmith International Holdings LP	Ch. 11	Canada	Consumer/service sector	95.0	9/16/2016	CCC	B	B	7/6/2012
Chesapeake Energy Corp.	Dist. Ex.	U.S.	Energy and natural resources	6,010.0	9/19/2016	-	-	CCC	6/24/2016
Claire's Stores Inc.	Dist. Ex.	U.S.	Consumer/service sector	2,729.4	9/21/2016	-	-	CCC-	5/11/2016
Cloud Peak Energy Resources LLC	Dist. Ex.	U.S.	Energy and natural resources	800.0	9/23/2016	BB-	BB-	BB-	11/10/2009
Intelsat S.A.	Dist. Ex.	Luxembourg	High tech/computers/office equipment	0.0	9/26/2016	-	-	CCC	7/15/2016
Samarco Mineracao S.A.	Missed	Brazil	Energy and natural resources	2,200.0	9/28/2016	BB+	BBB	BBB	10/22/2012
Postmedia Network Inc.	Dist. Ex.	Canada	Leisure tme/media	570.5	10/5/2016	B-	B-	B+	6/22/2010
PetroQuest Energy Inc.	Debt ex.	U.S.	Energy and natural resources	14.2	10/7/2016	-	-	CCC	7/22/2016
Seven Energy International Ltd.	Missed	Nigeria	Energy and natural resources	400.0	10/13/2016	B-	-	B-	10/14/2014
Bonanza Creek Energy Inc.	Missed	U.S.	Energy and natural resources	800.0	10/17/2016	-	-	CC	9/8/2016
EnQuest PLC	Missed	U.K.	Energy and natural resources	650.0	10/18/2016	B	-	B+	3/26/2014
JSCB Peresvet Bank	Reg. dir.	Russian Federation	Financial institutions	112.4	10/24/2016	B+	-	B+	2/10/2014
Homer City Generation L.P.	Missed	U.S.	Utility	640.0	10/25/2016	B-	B-	B-	12/6/2012
Petroleos de Venezuela S.A.	Dist. Ex.	Venezuela	Energy and natural resources	19,859.5	10/25/2016	CCC	B	BB-	3/8/2007
Expro Holdings U.K. 3 Ltd.	Dist. Ex.	U.K.	Energy and natural resources	914.0	10/28/2016	CCC+	B-	B	12/3/2009
Performance Sports Group Ltd.	Ch. 11	U.S.	Consumer/service sector	450.0	11/1/2016	B	-	B+	3/18/2014

Table 8

2016 Global Publicly Rated Corporate Defaults (cont.)									
Company	Reason for default	Country	Industry	Debt outstanding (Mil. \$)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
21st Century Oncology Holdings Inc.	Missed	U.S.	Health care/chemicals	0.0	11/2/2016	B-	-	B-	5/8/2014
IronGate Energy Services LLC	Missed	U.S.	Energy and natural resources	210.0	11/4/2016	CCC+	-	CCC+	6/24/2015
Erickson Inc.	Ch. 11	U.S.	Transportation	355.0	11/9/2016	B	B	B	4/17/2013
Stone Energy Corp.	Missed	U.S.	Energy and natural resources	1,070.4	11/15/2016	-	-	CCC-	6/14/2016
Cell C (Pty) Ltd.	Missed	South Africa	Telecommunications	430.3	12/6/2016	B-	B-	B+	4/15/2005
Memorial Production Partners LP	Missed	U.S.	Energy and natural resources	1,200.0	12/7/2016	B	B	B	4/9/2013
North American Membership Group Inc.	Ch. 11	U.S.	Leisure tme/media	0.0	12/8/2016	NR	NR	B	4/8/2005
Cobalt International Energy Inc.	Dist. Ex.	U.S.	Energy and natural resources	2,680.0	12/9/2016	CCC+	-	CCC+	7/11/2014
Jack Cooper Holdings Corp.	Dist. Ex.	U.S.	Transportation	540.0	12/9/2016	CCC+	B-	B-	6/4/2013
iHeartCommunications Inc.	Missed	U.S.	Leisure tme/media	15,775.0	12/15/2016	CCC+	CCC+	CCC	8/31/2009
Optima Specialty Steel Inc.	Ch. 11	U.S.	Energy and natural resources	246.0	12/15/2016	CCC+	B	B	1/6/2012
PJSC Tatfondbank	Reg. dir.	Russian Federation	Financial institutions	130.0	12/16/2016	B	-	B	3/24/2014
Sierra Hamilton LLC	Missed	U.S.	Energy and natural resources	110.0	12/16/2016	CCC+	B-	B-	12/5/2013
Illinois Power Generating Co.	Ch. 11	U.S.	Utility	825.0	12/19/2016	CCC+	CCC+	BBB+	9/25/2000
PrivatBank	Reg. dir.	Ukraine	Financial institutions	0.0	12/21/2016	B-	-	B-	12/7/2015
Isolux Corsan S.A.	Dist. Ex.	Spain	Aerospace/automotive/capital goods/metal	0.0	12/23/2016	B-	-	B	3/12/2014
Petroleum Geo-Services ASA	Dist. Ex.	Norway	Energy and natural resources	850.0	12/23/2016	B	BB	B+	5/6/2005
TwentyEighty Inc.	Missed	U.S.	Leisure tme/media	399.0	12/27/2016	CCC	B	B	11/5/2013
KazInvestBank	Reg. dir.	Kazakhstan	Financial institutions	0.0	12/28/2016	B-	NR	B	12/4/2006
Stallion Oilfield Holdings Inc.	Missed	U.S.	Energy and natural resources	375.0	12/28/2016	CCC+	B	CCC+	2/5/2010
Total				239,182.4					

*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 2016. Initial ratings, or those as of Dec. 31, 1980. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

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

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
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
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	1.59	1.78	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	0.51	0.98	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	0.53	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	0.38	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	0.31	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	10.82	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	0.85	0.36	0.56	0.00	0.75	2.13	22.62
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	1.28	4.47	16.30
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	27.52
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	0.77	0.83	4.66	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	17.13
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	1.75	2.02	4.25	25.88
2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	1.10	0.91	2.29	10.53	32.67
Average	0.00	0.00	0.01	0.02	0.05	0.05	0.08	0.13	0.22	0.26	0.53	0.75	1.28	2.20	6.26	9.16	23.96
Median	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.76	1.74	5.32	7.45	23.71
Standard deviation	0.00	0.00	0.07	0.09	0.14	0.11	0.20	0.30	0.35	0.43	0.90	0.83	1.66	2.06	4.86	7.53	11.76
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: S&P Global Fixed Income Research and S&P CreditPro®.

2016 Timeline: The Politics Of Rejection And Lingering Energy Stress

Last year brought what still appear to be monumental changes on the geopolitical front within developed economies, particularly in the U.S. and U.K. Contrary to the consistent predictions of polls in the lead-ups to the U.K. referendum vote on continued membership in the European Union (EU) in June and the U.S. Presidential election in November, Britain voted to leave the EU, and Donald Trump won the U.S. presidency. These two events marked a shift toward a more populist stance in the two countries, a position also seen toward the end of the year in the Italian referendums. These developments have produced new uncertainties within the global economy, which will likely have a more tangible impact over the course of 2017/2018.

After defaults breached the 100 mark in 2015 (at 113), the total only expanded further in 2016, finishing at 162. And although there was some reprieve near the end of the year, the fallout from lower oil prices at the start of the year continued throughout most of 2016, causing the energy and natural resources sector to produce one of the most concentrated default environments since the turn of the century. Fully 51% of all defaults globally came from this sector. Within the U.S., the proportion was even higher at 58%.

Shortly after the year began, worries began to trickle in from China, as the People's Bank of China (PBOC) lowered its adjustment of the yuan by the largest amount since the previous August--alongside a concurrent poor reading for manufacturing data. This sent Chinese equities tumbling throughout January, with the CS300 losing more than 7% just 30 minutes into the trading day on Jan. 6. The decline was large enough to trigger a circuit breaker that halted trading--the second time within a week. Chinese equities finished down roughly 27% through the end of January as fears mounted that capital would quickly leave the country. There were spillover effects globally, with the S&P 500 losing 5% in January. Economic jitters from China also had a negative impact on already weak oil prices, leading the West Texas Intermediate (WTI) price of a barrel of oil to drop to \$34 by month-end from \$48 a year earlier.

Fourth-quarter U.S. GDP also came in with an initial reading of only 0.7% annualized growth, along with weak inflation readings as well. These forces combined to lead the Fed to keep interest rates steady at its January meeting, despite market expectations for an increase at the start of the year. This would be the first among many such actions by the Fed until its eventual interest rate increase later on in December. Similarly, fears of a global slowdown also prompted the Bank of Japan (BoJ) to adopt stimulative policies at the end of the month that featured negative interest rates.

In early February, S&P Global Ratings lowered its ratings on 45 U.S. speculative-grade oil and gas exploration and production companies after revising its oil and natural gas price assumptions downward in January. Within a week, we then downgraded 47 Brazilian issuers after the sovereign downgrade, which resulted from the expectation for further economic and political decline since the last downgrade in 2015. This rocky start to the year pushed U.S. speculative-grade corporate bond spreads up to an annual high of 815 bps on Feb. 16. Following alongside the Fed and BoJ, the European Central Bank (ECB) also left its key interest rate unchanged at its meeting in January. However, ECB President Mario Draghi also announced that the bank would be willing to take further actions to fight persistently low inflation in the region and provide a buffer to growing global volatility, possibly as early as its next meeting in March. This would pave the way for the ECB's own QE program involving not only the previously committed monthly purchases of government debt and asset-backed debt but investment-grade corporate debt as well.

March proved a busy month, starting with Japan crossing into territory few others have yet ventured: On the first of the month, the nation sold its first 10-year bonds at a negative interest rate. Later on in 2016, other nations' 10-year yields also dipped below zero, as central bank purchases combined with increased demand for safe-havens amid rising uncertainties. In nearby China, the PBOC lowered the reserve requirements of banks in an effort to boost credit markets and support the economy. The cut totaled half of a percentage point, with an estimated impact of roughly \$107 billion being freed up to lend. In Latin America, after a long, drawn-out battle, Argentina reached a preliminary agreement with multiple hedge funds to settle claims on their defaulted sovereign bonds at the beginning of March. This brought an end to a roughly 15-year process and paved the way for country to re-enter global debt markets later in the year. This positive development contrasts with neighboring Brazil, which on March 3 reported that GDP contracted by nearly 4% in 2015. A day later, federal police searched the home and offices of former President Inacio Lula da Silva, bringing him in for questioning and acting as prelude to further scandals for the country's sitting President Dilma Rousseff.

Also in March, the ECB expanded upon its monetary stimulus, including additional rate cuts and bond purchases as well as very cheap bank loans. The bank expanded its monthly bond purchase program to €80 billion from €60 billion, expanding into investment-grade corporate bonds. The new bank loans were of a four-year tenor--and at ultra-low interest rates of 0% to negative 0.4%.

The second quarter of the year started off with a very busy April. The month began with the U.S. Treasury Department announcing an expanded set of curbs on corporate inversions, with a new limitation on the practice of earnings stripping. This came in the midst of the proposed \$160 billion acquisition of Ireland-based Allergan PLC by Pfizer Inc., and only days later, Pfizer announced it would terminate the deal because of these rules. In an effort to prop up precipitously falling oil prices since 2014, the Organization of Petroleum Exporting Countries (OPEC) convened to cut production, but surprisingly, the talks fell apart. The largest producer--Saudi Arabia--effectively ended the negotiations by continuing to demand that Iran also agree to a production cap. Meanwhile, Brazil fell into political chaos as its lower house of Congress voted to impeach President Dilma Rousseff on April 17. And on April 19, Argentina returned to the sovereign bond markets with the largest emerging market deal ever. At \$16.5 billion, the global debt offering was more than double previous highs from developing countries' governments. Finally, on April 25, S&P Global Ratings lowered its 'AAA' rating on Exxon Mobil Corp. to 'AA+' on the belief that the company's credit measures will be weak for 'AAA' rating expectations in light of falling commodity prices. This downgrade reduced the number of 'AAA' U.S. nonfinancial issuers to only two: Microsoft Corp. and Johnson & Johnson.

Springtime difficulties in Latin America were not limited to Brazil. On May 2, Puerto Rico's Government Development Bank defaulted after failing to pay roughly \$400 million in principal payments. The default was seen by many as a precursor to future defaults over the summer on another \$2 billion in debt owed by the bank, which owes a total of about \$70 billion to investors. Later in May, after 11 hours of negotiations, eurozone finance ministers and the International Monetary Fund (IMF) put together an agreement allowing for new loans to Greece as debt relief. Only a few days prior, the negotiations appeared shaky, as arguments over austerity measures on the part of Greece were not received well by the ailing country.

On June 23, the U.K. rocked financial, economic, and political spheres the world over in a historic--and somewhat

unexpected--referendum vote to leave the European Union (EU) after an over 40-year membership. With a vote to leave of 51.9%, the U.K. government has recently invoked Article 50 of the Treaty of the European Union, the formal withdrawal procedure. This put the country on course to exit the EU within the next two years. In a vote drawn by very specific geographic lines, the exit result was strong among most of England outside of greater London and the majority of Wales. Meanwhile, most of Northern Ireland and all of Scotland voted to remain, quickly provoking scuttlebutt for another Scottish independence vote.

Shortly after the vote, Prime Minister David Cameron stepped down, and within the first 30 days, the British pound fell by 12%. His successor, Theresa May, was the former Home Secretary and a pro-Europe politician herself. However, since assuming leadership, she has generally taken on a more hardline approach to the separation process. Shortly after Ms. May's appointment, a failed coup took place in Turkey. For the first time in decades, members of the Turkish military attempted to overthrow the government, and they nearly succeeded.

Meanwhile, amid escalating fears of future market illiquidity as a result of the Brexit vote, in the U.S. J.P. Morgan Chase & Co. decided to end its role as one of only two banks (along with Bank of New York Mellon) that act to settle Treasury trades. Second-quarter seasonally adjusted real GDP in the U.S. also came in at a relatively weak 1.2% annual rate; when combined with the downwardly revised first-quarter figure, this made for the weakest pace of post-recession growth in over 60 years. And stress for American companies continued over the summer, as the EU regulator demanded that Ireland seek roughly \$14.5 billion in unpaid taxes by Apple Inc. The European Commission said that tax arrangements offered to Apple by Ireland allowed the company to pay ultra-low tax rates for over a decade in an essentially illegal benefits arrangement.

The Brazilian political drama that began earlier in the year kicked off the third quarter with President Dilma Rousseff being removed from office following her impeachment trial. In the expected outcome, the Brazilian Senate voted by 61-20 to convict her on charges of using illegal bookkeeping to manipulate the state of the budget deficit. She was succeeded by her vice president, President Michel Temer, who is acting as Interim President until the end of 2018. The political fallout came in the middle of an economic downturn punctuated by a disgruntled electorate, a 3.8% contraction in GDP in 2015, and the lingering aftertaste of the Petrobras bid-rigging and bribery scandal, which involved politicians across multiple parties.

Meanwhile, Germany's largest bank, Deutsche Bank AG, faced large stock price declines--as much as 7.5% in one day--following news that the U.S. Justice Department had suggested it pay a \$14 billion legal settlement to close out mortgage securities investigations. Investor fears regarding the bank's thin capital cushion prompted sell-offs, as previous comments from the German government tended to discourage a public-funded bailout. Because of the sheer size of the bank and its network with other banks across Europe, the threat of financial stress extended well beyond Germany.

Conversely, in a positive boost to financial markets, both the Fed and the BoJ extended their supportive monetary policies. The Fed did not raise interest rates, and the BoJ affirmed its prior commitment to stimulative policy, in part by adopting an interest rate target of 0% for 10-year Japanese government bonds. The bank did this by adjusting its bond-buying operations.

Merger and acquisition activity continued in 2016, though it fell short of 2015's heady total. Still, the fall brought two of the largest deals in history. The first involved Anheuser-Busch InBev NV winning approval to purchase SABMiller PLC for a staggering \$100 billion. This is one of the largest deals ever, and it made AB InBev more than double the size of its closest rival, Heineken NV. Oct. 22, AT&T announced it was going to buy Time Warner in an \$85.4 billion cash and stock deal, making it one of the largest media conglomerates; the deal is subject to extensive regulatory review.

In what was arguably the biggest news story of the year, on Nov. 8 Donald Trump won the U.S. Presidential election. Largely unexpected, many polls still had him trailing his Democratic rival, Hillary Clinton, by approximately five points, on average. Mr. Trump's campaign was largely built on many of the same principles as those embraced by the pro-Brexit camp: more inwardly focused economic and trade policies, a more restrictive sure immigration stance, and an overall distaste for the political status quo. Almost immediately, markets reacted with substantial optimism; the S&P 500 gained almost 3% by month-end and finished the year up 4.6% from election day. Investors became more sanguine about the future in the belief that the incoming Trump administration would roll back many regulations, including the Dodd-Frank framework, which helped propel financial shares after the election. Many manufacturing companies' equity also appreciated given the campaign trail talk of increased government spending, particularly on infrastructure and a more export-friendly approach to trade and tax policy. Among fixed-income markets, Treasury yields rose after the election on the prospect of increased inflation but also in anticipation of a December rate hike by the Fed, with more to come in 2017. There was also a sell-off in investment-grade corporate bonds, but speculative-grade bonds gained 1.5% by year-end after an initial post-election holding pattern.

At the end of November--and after months of disagreement--members of OPEC finally reached a deal to cut oil production in the face of persistently low prices. The final agreement entailed a production cut of 1.2 million barrels per day (bpd) from the then-current 33.3 million bpd and was the first cut since 2008. This helped push oil prices up to nearly \$50/barrel from just over \$45 a day earlier. While clearly a positive boost to oil prices, ultimate compliance among member states--and non-member states alike--will determine the agreement's ultimate success, and many doubt the group's future adherence, particularly considering past experience.

The year ended with a pair of elections in Europe, with one bucking the trend of populist victories and the other somewhat of a continuation of them. Austria elected the center-left candidate Alexander Van der Bellen president with over 53% of the vote, pushing back the more populist, EU-critical challenger Norbert Hofer. Meanwhile, in Italy voters rejected constitutional changes by a large margin, causing Prime Minister Matteo Renzi to resign. The events were seen as a victory for antiestablishment political forces such as the 5 Star Movement, which campaigned against the prime minister and his agenda and have called for a nonbinding referendum on Italian membership in the EU. Finally, in the U.S., the Fed finished out the year with its first interest rate increase of 2017. Most Fed watchers had predicted several at the beginning of the year, but global worries early in the year contributed to a much slower pace.

2016 will be remembered as one marked by a groundswell of populist viewpoints and political victories, particularly in the U.S. and U.K. The Brexit vote and election of Donald Trump may have set a course for more such outcomes in the developed world in 2017 and beyond, or they may prove to be mostly isolated events. In either case, these events will drive much of the course for financial markets in the near future. Still, despite concerns of severe disruptions to global trade and financial markets following the elections, this has largely not come to pass as yet. U.S. Treasury yields ended

the year higher than where they spent most of 2016 but did not rise much further than 2.5%. In the U.K., the most notable change has been in the exchange rate of the pound, but equity markets there have generally performed well post-Brexit, and prevailing interest rates have fallen. Among corporate defaults, the main driver for the year was the lingering decline in global oil and gas prices since 2014. Some events can be cataclysmic for corporate defaults, such as the abrupt failure of a large, globally integrated financial institution. Other factors push the total up over the course of time, such as oil prices have done in the last two years. Many market participants had interpreted the political events of 2016 to be in the former category, but they may still prove to be of the latter.

Quarterly Trends

On a year-over-year basis, the number of rated defaults exceeded the total in every quarter of 2016 compared with the same quarter in 2015, except for the fourth (see Chart 14). In every quarter, the energy and natural resources sector led the way, ultimately accounting for 51% of the 2016 total. In terms of the amount of affected debt, 2016 generally had larger defaulters than 2015, with the second quarter standing out as having an elevated 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 2016, the main driver of quarterly debt amounts affected was simply the total number of defaults.

Chart 14

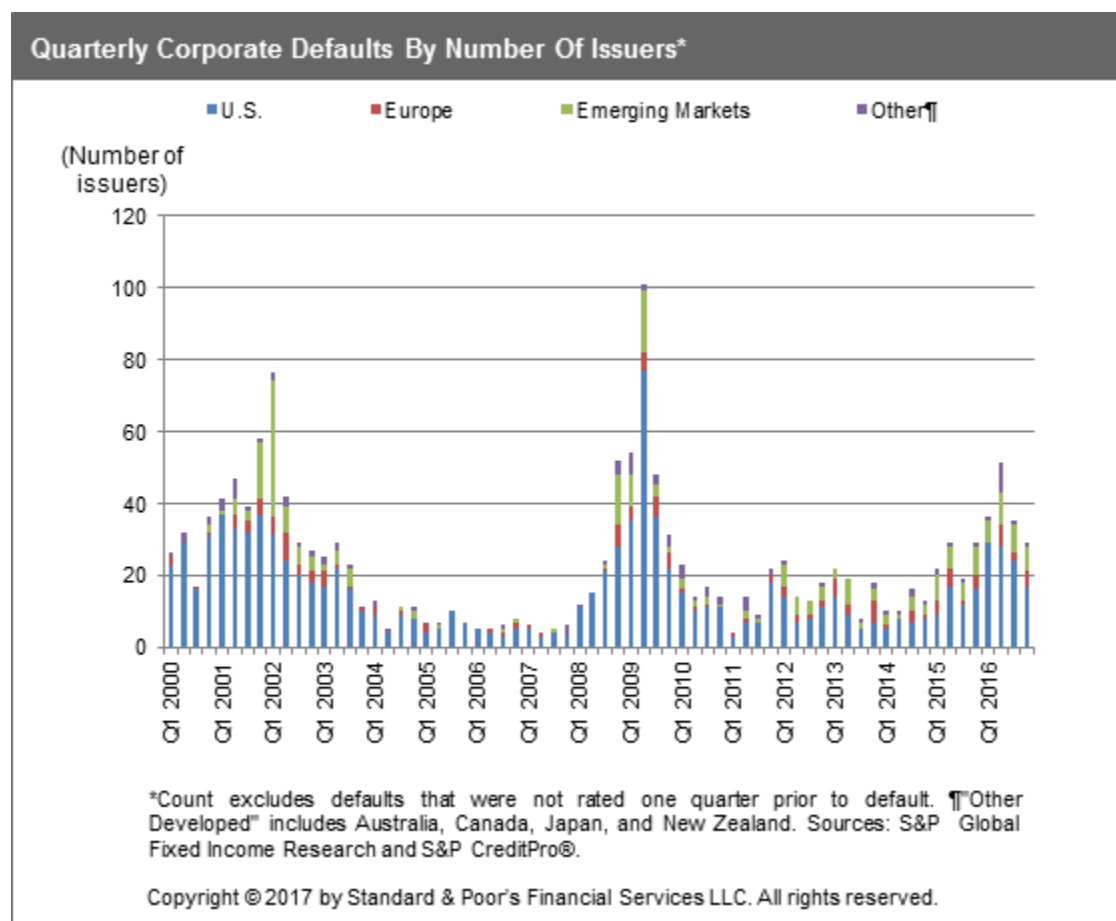
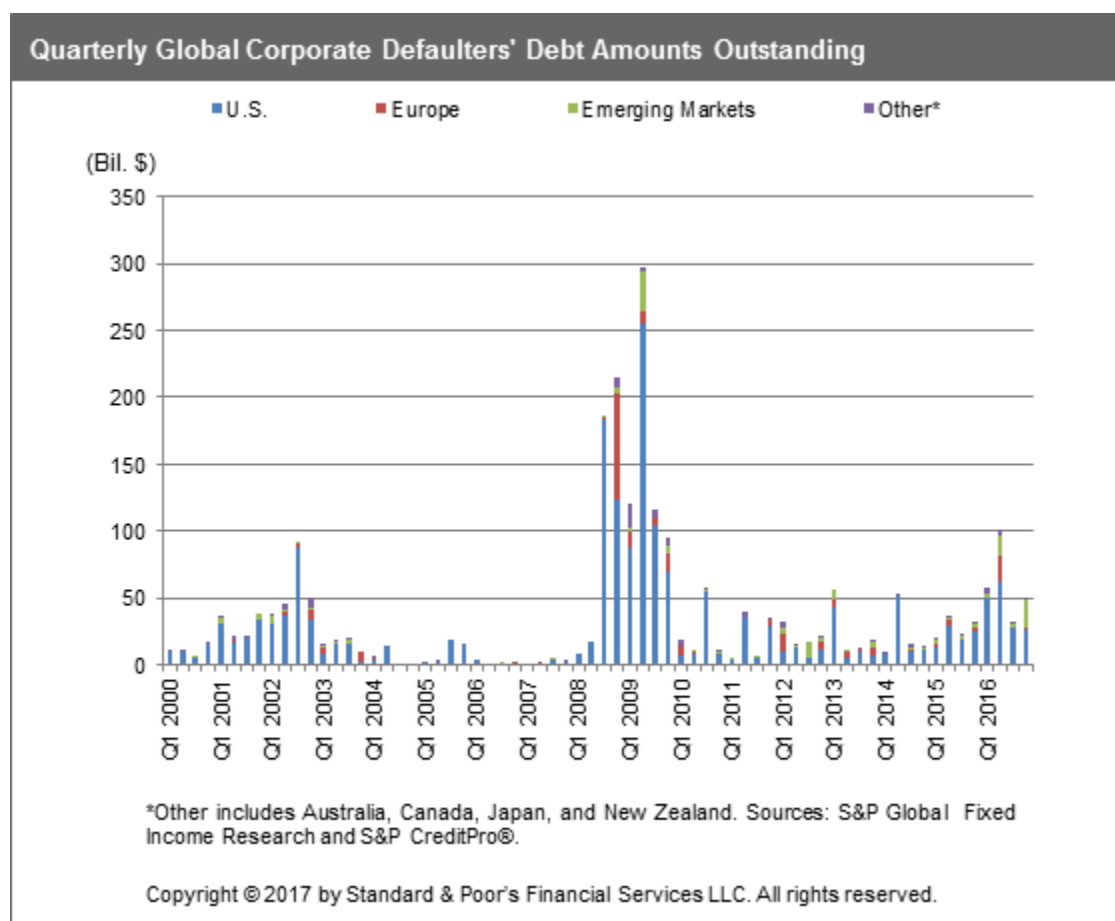
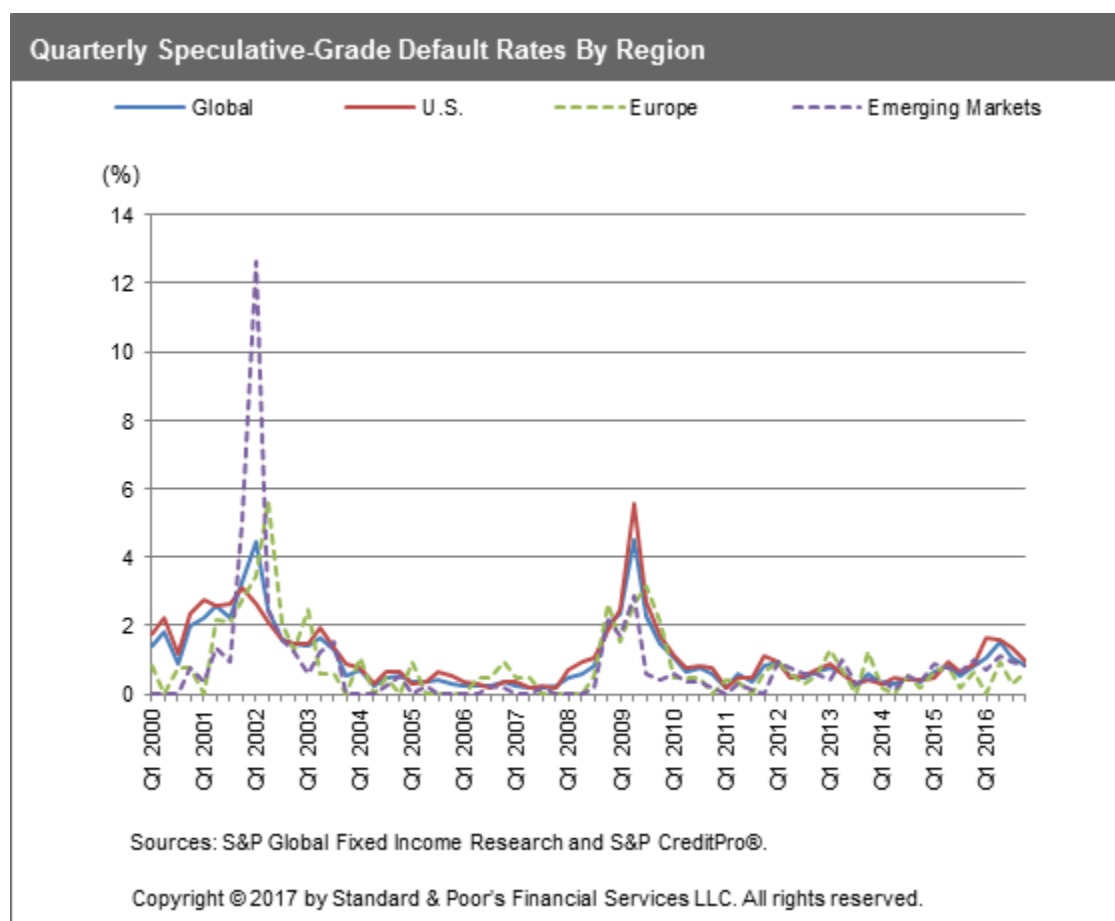


Chart 15



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 (non-annualized), default activity expanded across the major regions in the first half of 2016 (see Chart 16). This coincides with the second-quarter peak of 57 defaults, preceded and followed by 37 defaults in both the first and third quarters. The fourth quarter ended the year with the fewest defaults of all (31), and if these levels of actual default events continue, they will likely lead to lower default rates in 2017. At the end of the year, the quarterly default rates were 0.85%, 0.96%, 0.63%, and 0.86% 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 a default occurs. For example, for the entire pool of defaulters (1981-2016), the average times to default for issuers that were originally rated in the 'A' and 'B' categories were 13.3 years and 4.8 years, respectively, from the 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. Broadly speaking, the average and median times to default for each rating category are longer when based on the initial rating on an issuer than they are 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 - 2016)					
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	29	15.2	14.4	8.5	27.3
A	97	13.3	10.8	8.2	33.9
BBB	202	8.4	7.0	5.9	30.7
BB	595	6.6	5.1	5.2	33.9
B	1,415	4.8	3.5	4.0	30.5
CCC/C	230	2.3	1.3	2.8	17.4
Total	2,576	5.7	4.0	5.3	35.5

*Or Dec. 31, 1980, whichever is later. NR--Not rated. N/A--Not available. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 11

Time To Default From Post-Original Ratings For Global Corporate Defaulters (1981 - 2016)			
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	13.3	14.1	8.3
A	10.6	9.1	7.5
BBB	7.8	6.2	6.6
BB	5.5	3.9	5.2
B	2.8	1.7	3.4
CCC/C	0.8	0.3	1.5
NR	4.6	2.8	4.9
Total	3.1	1.2	4.6

NR--Not rated. N/A--Not available. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 12

Cumulative Defaulters By Time Horizon Among Global Corporates From Original Rating* (1981 - 2016)								
	AAA	AA	A	BBB	BB	B	CCC/C	Total
Number of issuers defaulting within (years):								
1				3	13	77	94	187
3		1	6	29	141	569	174	920
5		3	13	71	291	948	202	1,528
7	2	6	28	102	391	1147	216	1,892
Total	8	29	97	202	595	1415	230	2,576
Percent of total defaults per timeframe (years)								
1	0.0	0.0	0.0	1.6	7.0	41.2	50.3	
3	0.0	0.1	0.7	3.2	15.3	61.8	18.9	
5	0.0	0.2	0.9	4.6	19.0	62.0	13.2	
7	0.1	0.3	1.5	5.4	20.7	60.6	11.4	
Total	0.3	1.1	3.8	7.8	23.1	54.9	8.9	

*Or Dec. 31, 1980, whichever is later. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 13

Cumulative Defaulters By Time Horizon Among Global Corporates From Post-Original Ratings (1981 - 2016)									
	AAA	AA	A	BBB	BB	B	CCC/C	NR	Total
Number of issuers defaulting within (years):									
1			10	64	176	989	2,245	130	3,614
3		7	40	139	431	1,887	2,686	302	5,492
5		9	61	193	596	2,288	2,785	391	6,323
7		15	74	252	721	2,489	2,821	453	6,825
Total	3	46	202	462	1,013	2,754	2,860	585	7,925
Percent of total defaults per timeframe (years):									
1	0.0	0.0	0.3	1.8	4.9	27.4	62.1	3.6	
3	0.0	0.1	0.7	2.5	7.8	34.4	48.9	5.5	
5	0.0	0.1	1.0	3.1	9.4	36.2	44.0	6.2	
7	0.0	0.2	1.1	3.7	10.6	36.5	41.3	6.6	
Total	0.0	0.6	2.5	5.8	12.8	34.8	36.1	7.4	

Sources: S&P Global Fixed Income Research and S&P 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 (91.4%) 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 187 companies that defaulted within 12 months of having been rated, 171 were originally in the 'B' category ('B+', 'B', and 'B-') or lower. Only when looking at longer timeframes do companies with higher original ratings surface among the defaulters. For example, of all the companies that defaulted during 1981-2016, only two entities rated 'AAA' at inception defaulted within seven years. Throughout the 36-year span, only eight companies initially rated 'AAA' have ever defaulted: 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 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 timeframes 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, see Appendix I.)

Defaults appear disproportionately from low rating categories, even during times of heightened stress (see Table 14). This is also true over longer time horizons. For example, 265 defaults were recorded in the five-year pool that began in

January 2012, of which 259 were rated speculative grade on Jan. 1, 2012. (See Table 15 for the six publicly rated investment-grade defaults during this time period.) Among nonfinancial entities, the lower the rating, the higher the percentage of defaults, and the lower the survival rates. Among financials, ratings are generally concentrated in investment grade, and the speculative-grade category accounts for no more than 25.8% of all ratings in any of these three pools. However, it is clear that the percentage of speculative-grade ratings is increasing over time among financial services. Thus far, 15 defaults have come from the 2016 pool, though those were from the lowest rating categories (see Table 14).

Table 14

Defaults And Survivor Rates In Latest One-, Three-, And Five-Year Pools									
Rating	--Latest one-year--			--Latest three-year--			--Latest five-year--		
	Number of ratings as of Jan. 1, 2016	Number of defaults through December 2015	Non-default rate (%)	Number of ratings as of Jan. 1, 2016	Number of defaults through December 2015	Non-default rate (%)	Number of ratings as of Jan. 1, 2016	Number of defaults through December 2015	Non-default rate (%)
Global									
AAA	16	0	100.0	19	0	100.0	24	0	100.0
AA	354	0	100.0	328	0	100.0	346	0	100.0
A	1,348	0	100.0	1,296	0	100.0	1,302	1	99.9
BBB	1,797	0	100.0	1,703	4	99.8	1,571	5	99.7
BB	1,284	6	99.5	1,158	20	98.3	1,008	38	96.2
B	1,927	71	96.3	1,804	152	91.6	1,407	151	89.3
CCC/C	202	66	67.3	181	55	69.6	149	70	53.0
Nonfinancials									
AAA	11	0	100.0	12	0	100.0	14	0	100.0
AA	106	0	100.0	95	0	100.0	83	0	100.0
A	565	0	100.0	529	0	100.0	544	1	99.8
BBB	1,232	0	100.0	1,171	3	99.7	1,050	4	99.6
BB	992	6	99.4	911	20	97.8	806	35	95.7
B	1,684	63	96.3	1,594	136	91.5	1,246	142	88.6
CCC/C	181	59	67.4	147	48	67.3	127	61	52.0
Financials									
AAA	5	0	100.0	7	0	100.0	10	0	100.0
AA	248	0	100.0	233	0	100.0	263	0	100.0
A	783	0	100.0	767	0	100.0	758	0	100.0
BBB	565	0	100.0	532	1	99.8	521	1	99.8
BB	292	0	100.0	247	0	100.0	202	3	98.5
B	243	8	96.7	210	16	92.4	161	9	94.4
CCC/C	21	7	66.7	34	7	79.4	22	9	59.1

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: S&P Global Fixed Income Research and S&P CreditPro®.

Table 15

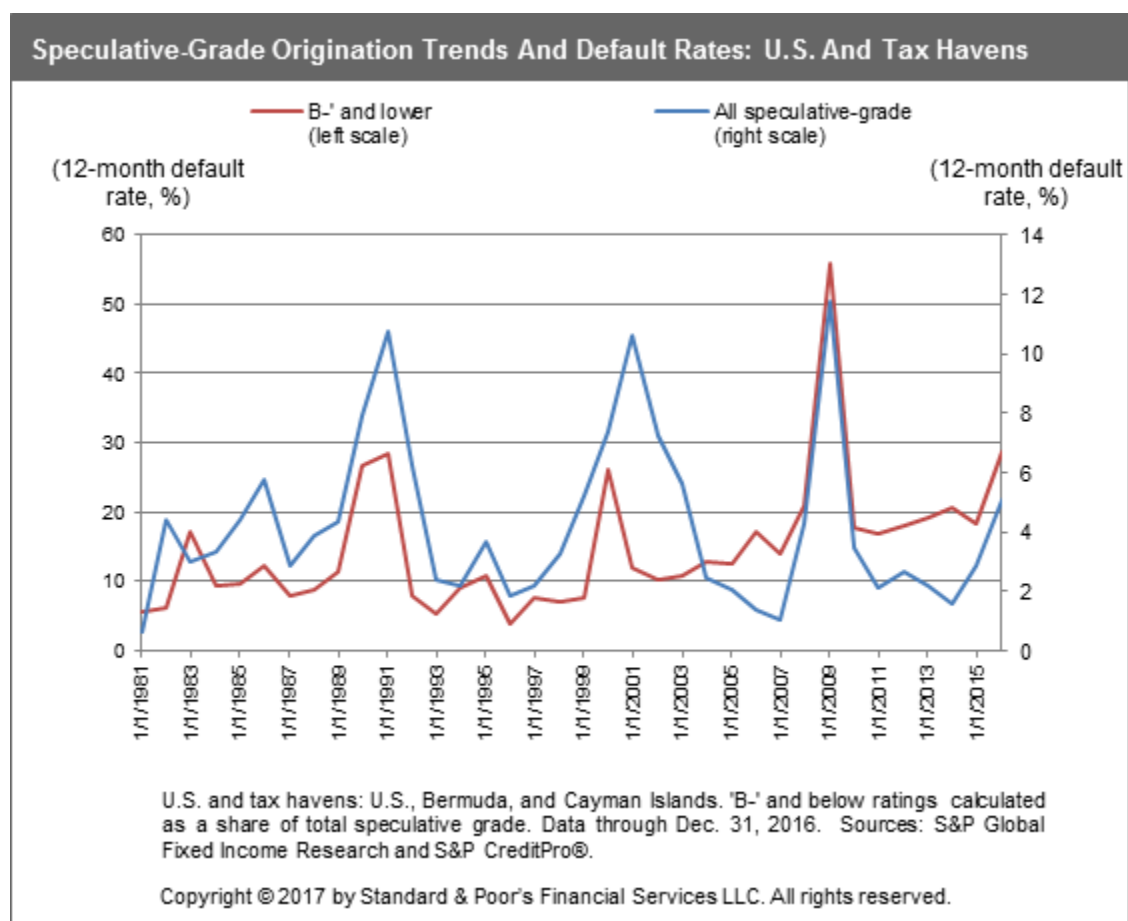
Investment-Grade Defaults In The Five-Year 2012 Static Pool

Company	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
Usinas Siderurgicas de Minas Gerais S.A.	Brazil	Aerospace/automotive/capital goods/metal	3/22/2016	BB	BB+	BB-	1/14/2004	2016
Government Development Bank for Puerto Rico	U.S.	Financial institutions	4/11/2016	B-	BBB-	A+	8/9/1989	2016
Cliffs Natural Resources Inc.	U.S.	Energy and natural resources	4/12/2016	B	BBB-	BBB-	9/8/2008	2016
Oi S.A.	Brazil	Telecommunications	6/21/2016	BB+	BBB-	BBB-	9/6/2011	2016
Sharp Corp.	Japan	High tech/computers/office equipment	6/30/2015	B+	BBB+	A	11/20/2002	2015
Illinois Power Generating Co.	U.S.	Utility	12/19/2016	CCC+	CCC+	BBB+	9/25/2000	2016

Excludes confidentially rated defaults. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Since 1981, the 'B' rating category ('B+', 'B', and 'B-') has accounted for 1,415 defaulters (54.9% of the total, from initial rating), well more than double the number of entities in the 'BB' category (see Tables 10 and 12). Given the track record, monitoring the trends of 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 most of the relatively benign period since then, the two series have diverged somewhat, similar to 2004-2007. The historical parallel has picked up again in 2016 on the increasing stress in the energy and natural resources sector, which was particularly hard felt in the U.S.

Chart 17



Industry Variations: Nonfinancials Dominated The Default Population

Generally, default rates across both nonfinancial and financial companies increased in 2016 relative to the prior year, in many cases nearing their long-term averages and in some cases exceeding them (see Table 16). (One notable exception in 2016 was insurance companies.) Across various timeframes, default rates are, on average, always higher for nonfinancial companies than they are for financial companies. In 2016, financial companies accounted for 9.3% of total defaults globally. This is a slightly lower proportion of the annual total than the long-term average of 10.3% and the 13.3% in 2015. In many cases, default rates across various time horizons have risen above their 2015 levels as well as in a few cases breaching their long-term averages.

Table 16

Cumulative Global Corporate Default Rates By Sector							
Sector	2016	2015	Average (1981 - 2016)	Median	Standard deviation	Minimum	Maximum
Financial institutions							
One year	1.14	0.86	0.67	0.31	0.74	0.00	2.80
Three years	1.87	1.21	1.92	1.29	1.66	0.00	6.52

Table 16

Cumulative Global Corporate Default Rates By Sector (cont.)							
Sector	2016	2015	Average (1981 - 2016)	Median	Standard deviation	Minimum	Maximum
10 years	5.39	3.63	4.83	4.16	2.62	1.66	10.12
Insurance							
One year	0.00	0.12	0.52	0.26	0.92	0.00	4.65
Three years	0.12	0.12	1.61	1.04	1.64	0.12	6.98
10 years	1.95	2.14	5.18	4.49	3.00	1.95	14.29
All financials							
One year	0.70	0.57	0.59	0.44	0.55	0.00	2.07
Three years	1.18	0.76	1.76	1.58	1.22	0.18	4.97
10 years	3.96	3.02	4.95	4.31	2.31	2.39	8.87
All nonfinancials							
One year	2.68	1.71	1.83	1.46	1.34	0.16	5.72
Three years	4.64	3.83	5.09	3.95	2.95	1.88	12.47
10 years	11.01	9.51	11.37	10.38	3.29	6.98	19.38

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Over the long term, cyclicalities have 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 36 years this study covers, 72.1% of financial entities had initial investment-grade ratings, while only 32.1% 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 2016, the one-year default rate among all financial entities was 0.7% compared with 2.7% for all nonfinancials. The gap becomes even wider over longer time horizons, such as three years and 10 years (see Chart 19).

Chart 18

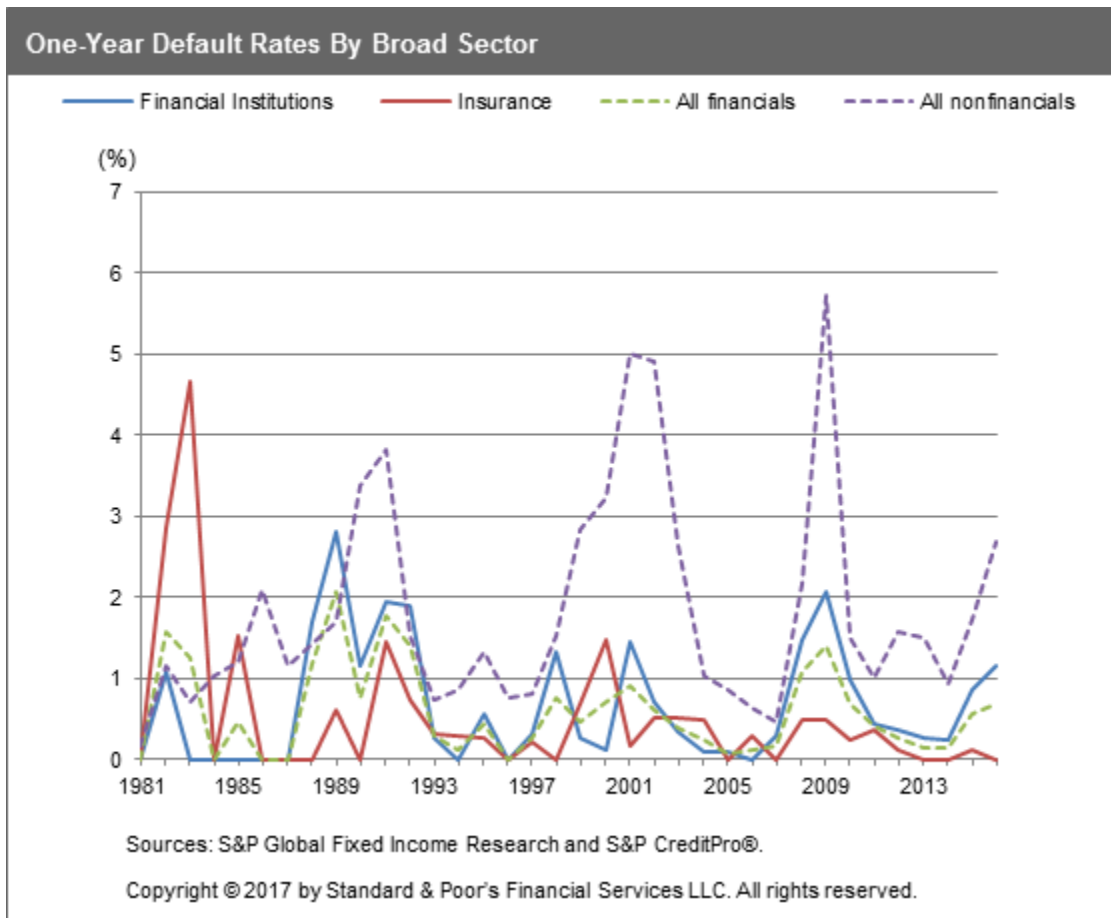
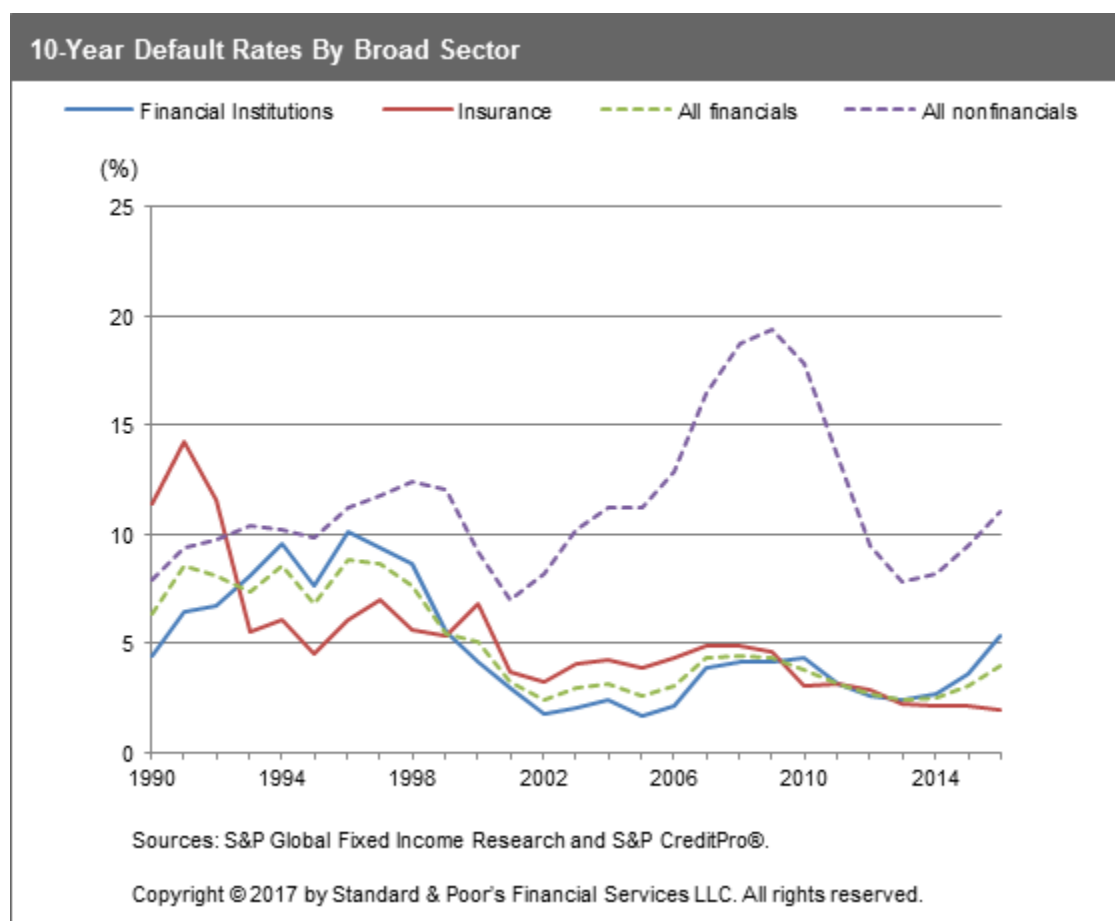


Chart 19



Of the 2,576 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 and utility sectors to the list. The average difference across sectors of the industry's median initial rating and the median initial rating of its defaulters was about 1.5 notches. The largest gap between the two is in financial institutions--a four-notch difference, with the 206 defaulting issuers having a median original rating of 'BB-' compared to a sector median of 'BBB'.

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-	365	6.4	4.5	5.6	28.2
Consumer/service sector	B+	B+	464	6.2	4.5	5.4	34.0
Energy and natural resources	B	B+	285	4.5	3.3	4.5	35.4
Financial institutions	BB-	BBB	206	5.5	3.6	5.8	28.6

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)
Forest and building products/homebuilders	B+	BB-	155	6.4	4.6	5.2	27.8
Health care/chemicals	B+	B+	145	5.8	4.1	5.1	28.0
High tech/computers/office equipment	B+	B+	86	5.4	3.9	4.8	28.4
Insurance	BBB+	A	72	8.0	6.6	6.4	28.6
Leisure time/media	B	B+	359	5.7	4.0	5.2	34.1
Real estate	BB-	BBB-	44	3.7	2.9	2.8	10.5
Telecommunications	B	B+	170	4.0	3.2	3.0	21.4
Transportation	B+	BB	146	6.3	3.8	6.3	30.9
Utility	BB+	BBB+	79	6.3	4.0	6.5	30.2
Total	B+	BB	2,576	5.7	4.0	5.3	35.5

*Or Dec. 31, 1980, whichever is later. NR--Not rated. N/A--Not available. Source: S&P Global Fixed Income Research; S&P 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	4.9
Consumer/service sector	3.3	1.6	4.5
Energy and natural resources	2.7	1.0	4.4
Financial institutions	3.0	1.0	4.7
Forest and building products/homebuilders	2.9	1.4	3.9
Health care/chemicals	2.8	1.3	4.0
High technology/computers/office equipment	4.0	2.0	5.2
Insurance	3.1	1.8	3.8
Leisure time/media	3.1	1.2	4.5
Real estate	1.4	0.8	1.7
Telecommunications	1.6	0.6	2.8
Transportation	4.4	1.7	5.9
Utility	3.2	0.8	5.3
Total	3.1	1.2	4.6

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

While the overall default rate increased in 2016, the heavy influence of the energy and natural resources sector on the total cannot be understated. Despite a relatively low default environment outside of this sector, nine industries had default rates in 2016 that were higher than their comparable 2015 rates, with an average increase of 1.4% (see Table 19). Meanwhile, four other sectors had lower default rates in 2016 relative to 2015, with a more modest average decline of 0.73%. Not surprisingly, the largest increase was in the energy/natural resources sector, with a default rate of 13.6% in 2016 compared with 6.5% in 2015. Excluding this sector, the average increase among industries with

higher default rates in 2016 was a much smaller 0.7%. As in 2015, the overall default rate increased in 2016, with the energy and natural resources sector--particularly the oil and gas industry--remaining the main driver of this increase. Meanwhile, most sectors' default rates are still below their long-term averages (only four are above). Among those four, the energy and natural resources sector had a default rate in 2016 that was nearly 11% higher than its average, while among the three other sectors there was only a 0.4% average increase.

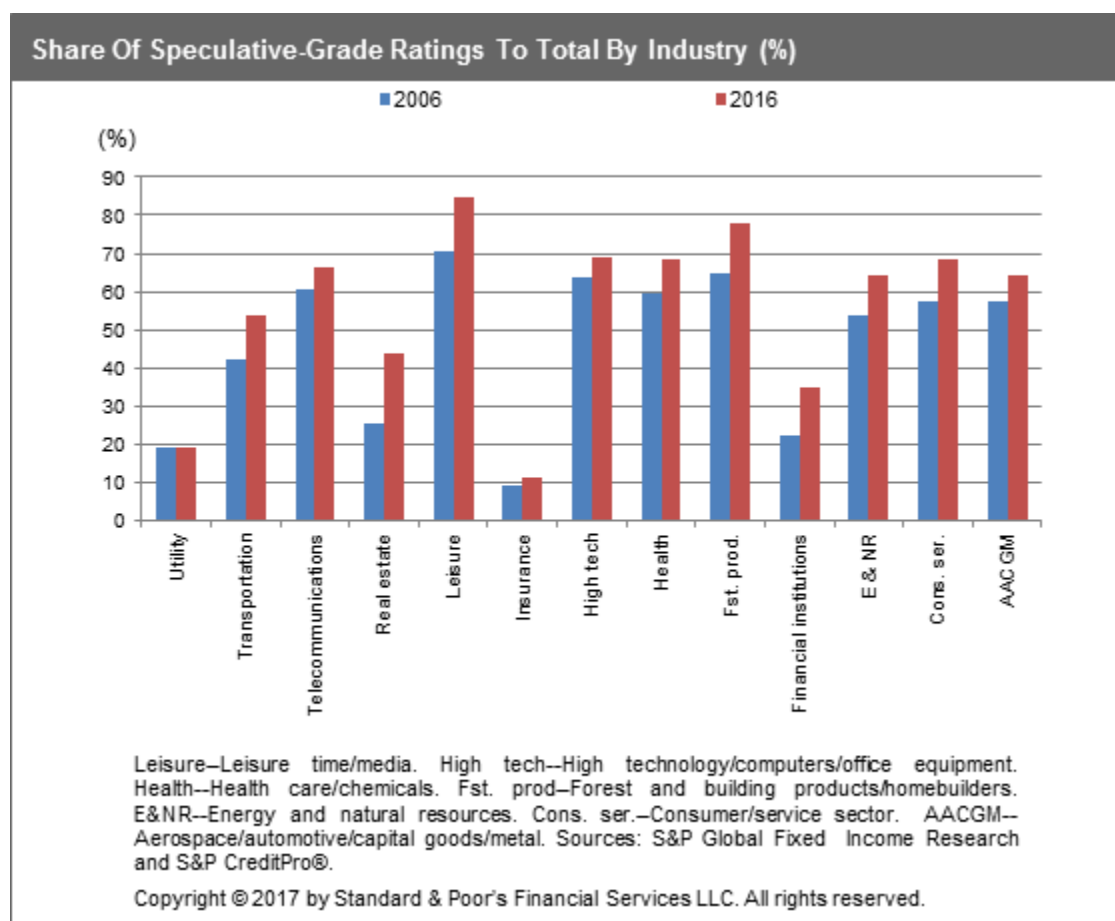
Table 19

Global Corporate Default Rates By Industry (%)							
	2016	2015	Weighted average (1981 - 2016)	Median	Standard deviation	Minimum	Maximum
Aerospace/automotive/capital goods/metal	1.84	1.00	2.18	1.34	2.06	0.00	9.43
Consumer/service sector	1.73	2.11	2.26	1.68	1.60	0.00	6.29
Energy and natural resources	13.59	6.53	2.91	1.58	2.90	0.00	13.59
Financial institutions	1.14	0.86	0.68	0.31	0.74	0.00	2.80
Forest and building products/homebuilders	0.88	2.75	2.60	1.46	2.94	0.00	14.51
Health care/chemicals	0.65	0.42	1.40	0.83	1.33	0.00	4.87
High technology/computers/office equipment	0.97	0.66	1.15	0.94	1.47	0.00	4.85
Insurance	0.00	0.12	0.32	0.26	0.92	0.00	4.65
Leisure time/media	2.05	1.66	3.47	2.13	3.32	0.00	16.87
Real estate	0.27	0.81	0.76	0.00	2.79	0.00	12.00
Telecommunications	1.35	0.00	2.58	0.71	3.87	0.00	18.26
Transportation	2.97	1.15	2.14	1.87	1.65	0.00	6.00
Utility	0.47	0.00	0.45	0.17	0.77	0.00	4.26

Includes investment-grade and speculative-grade rated entities. Sources: S&P Global Fixed Income Research and S&P 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 the utilities sector--which is at parity--all other sectors now have a higher portion of speculative-grade ratings than they did 10 years ago. In addition, 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%. As was the case in 2006, the leisure time/media sector has far and away the highest proportion of speculative-grade ratings, beginning 2016 with nearly 85% of its issuers among this rating group.

Chart 20



Speculative-Grade Ratings Set To Become Global Majority

Historical experience 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 had been more subdued in the pre-2008 financial crisis period. This 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 number of speculative-grade ratings in Europe has grown tremendously 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 2016 was 121, the fourth year in a row in excess of 100. In the U.S., S&P Global Ratings rated 55.6% of issuers speculative grade as of Dec. 31, 2016 (while in Europe, the comparable amount is just under 42.4%).

On a trailing-12-month basis, the global speculative-grade default rate peaked at 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 seven years, hitting a high of 79.4% in

2013. This reversed somewhat in 2016, to 74.6%. A more difficult lending environment in the second half of 2015 contributed somewhat to the reduction in the number of initial speculative-grade issuer ratings within that year, but the number rebounded in 2016. In 2016, 535 initial speculative-grade ratings entered our study population compared with 464 in 2015. Meanwhile, there was a decline in the amount of initial investment-grade issuer ratings, to 182 in 2016 from 201 in 2015.

Chart 21

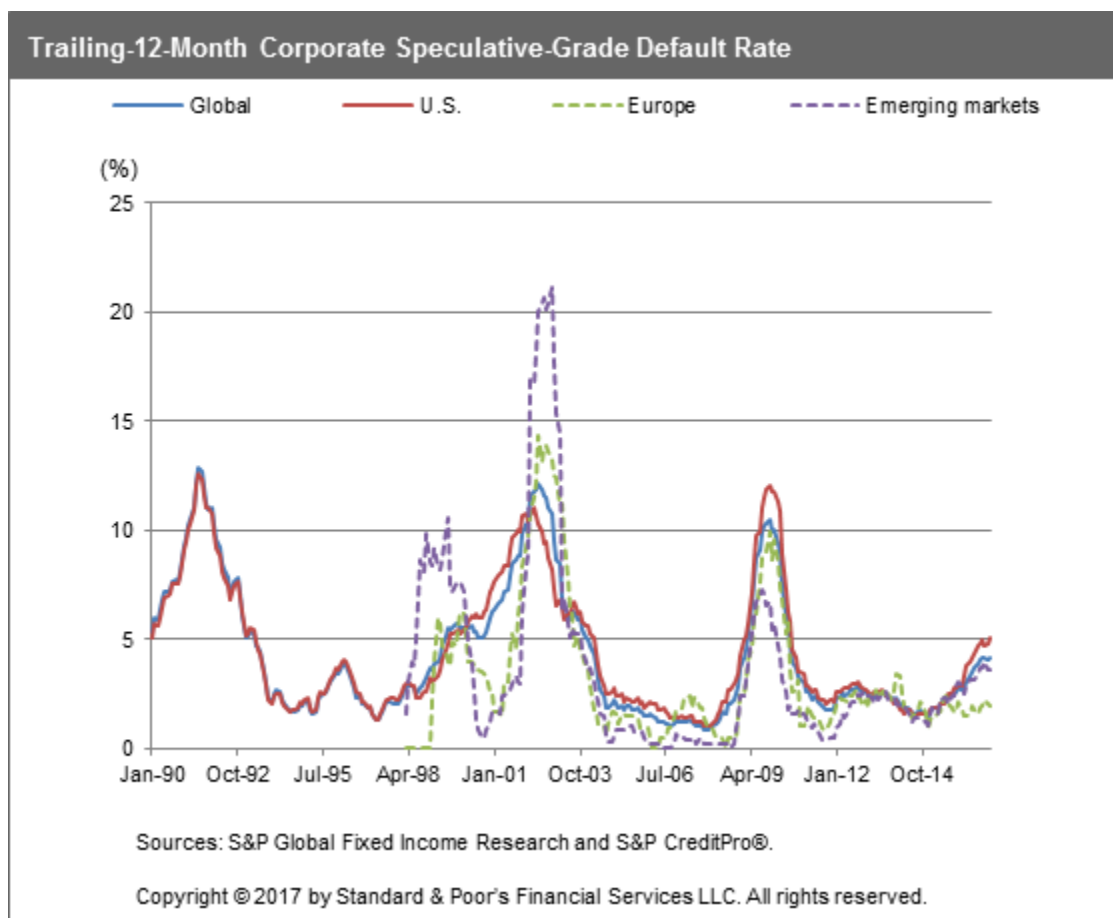


Chart 22

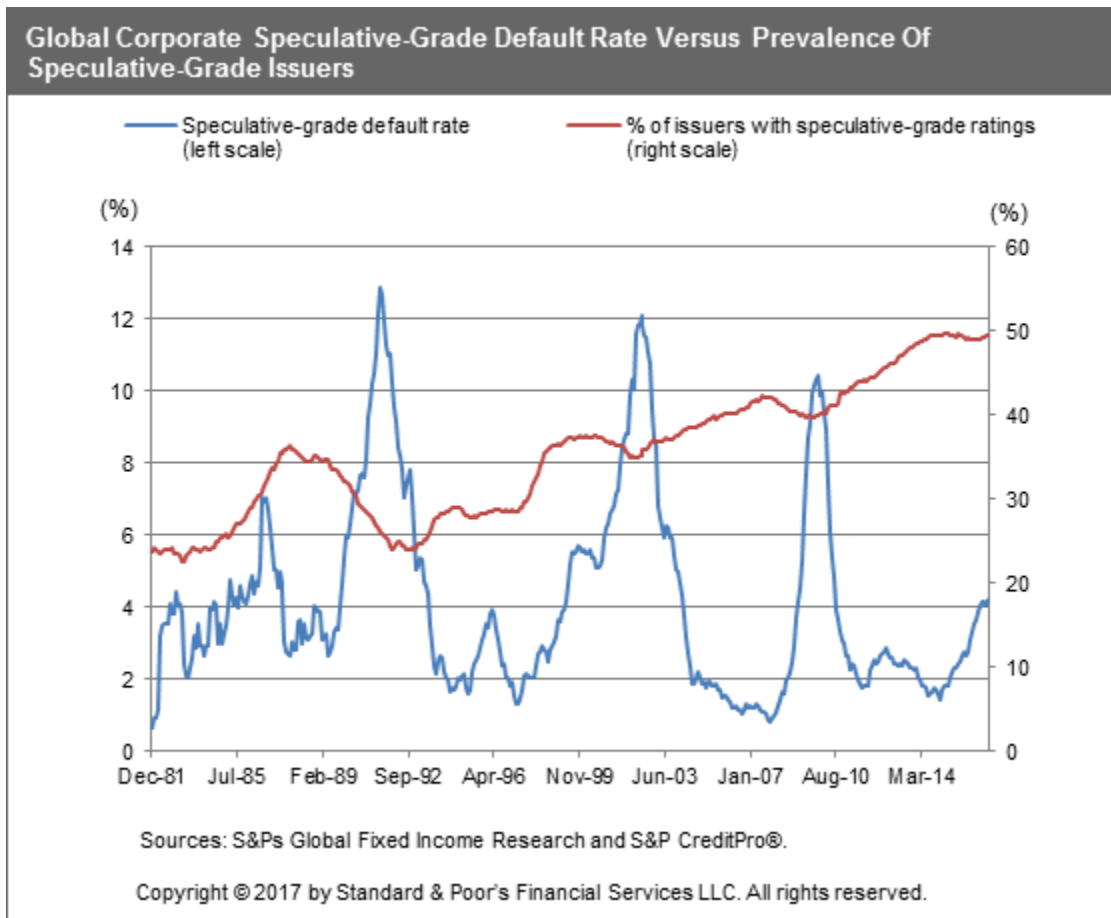


Chart 23

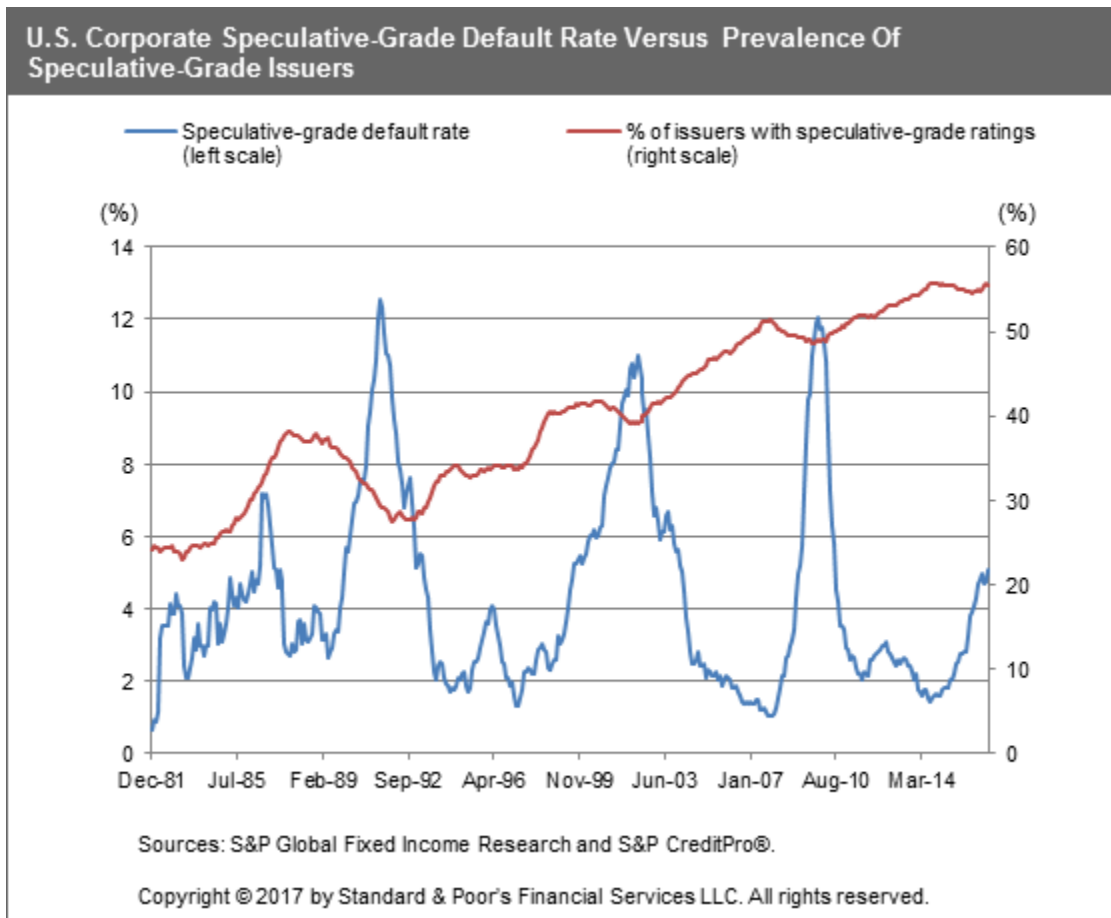
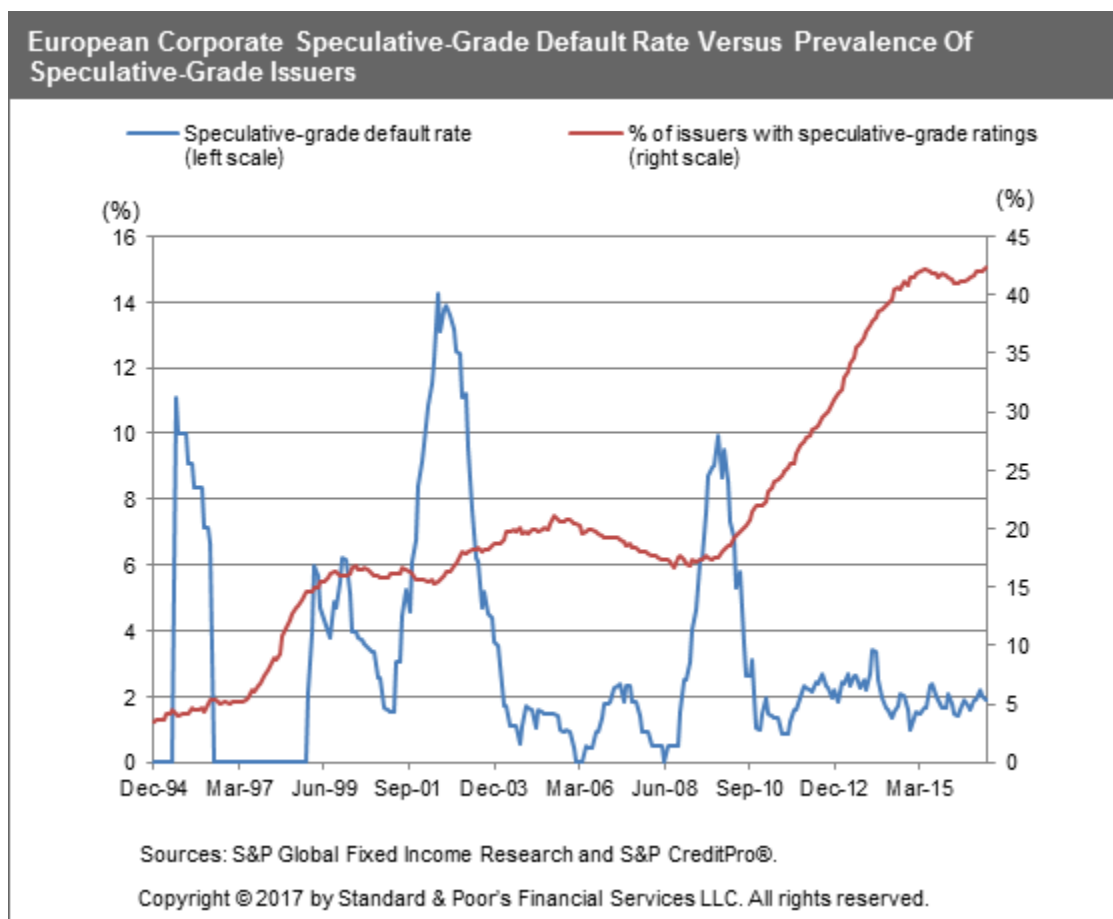


Chart 24



Transition Tables And Cumulative Default Rates Support Ratings Performance

An analysis of transition rates over the four quarters ended December 2016 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 tend to exhibit greater rating stability (as measured by the frequency of rating transition) than their speculative-grade counterparts (see Table 20). For instance, 91% of issuers rated 'A' at the beginning of 2016 were still rated 'A' by Dec. 31, 2016, whereas the comparable share for issuers rated 'B' was only 74%. 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 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 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. That number fell to 13 at the start of 2017. 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 2017. 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 (see Table 20). In 2016, we downgraded both Exxon Mobil Corp. and Imperial Oil Ltd. one notch from 'AAA', in part because of from low oil prices and their effect on Exxon Mobil Corp.'s resulting credit measures.

Over the long term (1981-2016), heightened ratings stability is broadly consistent with higher ratings (see Table 21). A key consideration 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

2016 One-Year Corporate Transition Rates By Region (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
Global									
AAA	81.25	12.50	0.00	0.00	0.00	0.00	0.00	0.00	6.25
AA	0.00	90.11	6.50	0.00	0.00	0.00	0.00	0.00	3.39
A	0.00	0.82	91.02	4.01	0.00	0.00	0.00	0.00	4.15
BBB	0.00	0.00	2.62	87.70	3.23	0.17	0.06	0.00	6.23
BB	0.00	0.00	0.00	3.12	80.37	6.07	0.23	0.47	9.74
B	0.00	0.00	0.00	0.00	3.84	74.00	5.55	3.68	12.92
CCC/C	0.00	0.00	0.00	0.00	0.99	14.36	40.59	32.67	11.39
U.S.									
AAA	66.67	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	89.03	5.16	0.00	0.00	0.00	0.00	0.00	5.81
A	0.00	1.12	89.33	3.37	0.00	0.00	0.00	0.00	6.18
BBB	0.00	0.00	3.73	88.03	3.22	0.26	0.13	0.00	4.63
BB	0.00	0.00	0.00	4.79	79.93	6.08	0.18	0.55	8.47
B	0.00	0.00	0.00	0.00	3.88	74.49	6.44	3.71	11.47
CCC/C	0.00	0.00	0.00	0.00	0.89	7.14	40.18	41.07	10.71
Europe									
AAA	66.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.33
AA	0.00	92.38	7.62	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.78	91.41	3.91	0.00	0.00	0.00	0.00	3.91
BBB	0.00	0.00	2.27	88.13	1.52	0.00	0.00	0.00	8.08
BB	0.00	0.00	0.00	3.17	80.09	4.52	0.00	0.00	12.22
B	0.00	0.00	0.00	0.00	3.16	74.21	5.26	2.11	15.26
CCC/C	0.00	0.00	0.00	0.00	0.00	10.00	63.33	13.33	13.33
Emerging markets									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	82.98	10.64	0.00	0.00	0.00	0.00	0.00	6.38
A	0.00	0.95	88.10	9.05	0.00	0.00	0.00	0.00	1.90
BBB	0.00	0.00	0.91	86.99	5.25	0.23	0.00	0.00	6.62
BB	0.00	0.00	0.00	1.56	81.70	6.47	0.45	0.67	9.15

Table 20**2016 One-Year Corporate Transition Rates By Region (%) (cont.)**

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
B	0.00	0.00	0.00	0.00	4.39	71.79	2.82	5.33	15.67
CCC/C	0.00	0.00	0.00	0.00	2.17	34.78	30.43	19.57	13.04

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

This study--in line with previous default studies--confirms that over the long term (1981-2016), higher ratings are more stable than lower ratings. 'AAA' rated issuers were still rated 'AAA' one year later 87.05% of the time, and 'CCC'/'C' ratings remained 'CCC'/'C' 44% 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 (a plus or minus after a rating), but these variations are likely a result of sample-size considerations, and we do not consider them significant (see Table 23). For example, 'AA+' rated issuers were still rated 'AA+' one year later 77.5% of the time, and 'AA' rated issuers were still rated 'AA' one year later 80.3% of the time. In this particular case, the 'AA+' result is derived from a much smaller sample relative to the 'AA' rating. And as a general rule, the highest proportions of rating changes for any given rating or rating modifier occur at adjacent ratings and rating modifiers.

Table 21**Global Corporate Average Transition Rates (1981 - 2016) (%)**

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
AAA	87.05	9.03	0.53	0.05	0.08	0.03	0.05	0.00	3.17
	(7.14)	(7.16)	(0.83)	(0.25)	(0.25)	(0.17)	(0.35)	(0.00)	(2.42)
AA	0.52	86.82	8.00	0.51	0.05	0.07	0.02	0.02	3.99
	(0.52)	(5.25)	(4.21)	(0.69)	(0.20)	(0.21)	(0.07)	(0.08)	(1.89)
A	0.03	1.77	87.79	5.33	0.32	0.13	0.02	0.06	4.55
	(0.09)	(1.02)	(3.53)	(2.11)	(0.39)	(0.27)	(0.07)	(0.11)	(1.77)
BBB	0.01	0.10	3.51	85.56	3.79	0.51	0.12	0.18	6.23
	(0.04)	(0.16)	(1.65)	(3.73)	(1.52)	(0.70)	(0.22)	(0.26)	(1.59)
BB	0.01	0.03	0.12	4.97	76.98	6.92	0.61	0.72	9.63
	(0.06)	(0.09)	(0.26)	(1.89)	(4.41)	(3.12)	(0.76)	(0.85)	(2.38)
B	0.00	0.03	0.09	0.19	5.15	74.26	4.46	3.76	12.06
	(0.00)	(0.09)	(0.21)	(0.22)	(2.04)	(4.22)	(2.19)	(3.25)	(2.19)
CCC/C	0.00	0.00	0.13	0.19	0.63	12.91	43.97	26.78	15.39
	(0.00)	(0.00)	(0.45)	(0.69)	(0.97)	(8.02)	(9.03)	(11.48)	(5.43)
Three-year									
AAA	65.51	22.03	2.36	0.32	0.19	0.08	0.11	0.13	9.27
	(11.52)	(12.18)	(1.72)	(0.76)	(0.45)	(0.30)	(0.42)	(0.37)	(5.25)
AA	1.21	65.83	18.69	2.11	0.36	0.23	0.03	0.13	11.42
	(0.81)	(9.29)	(6.18)	(1.38)	(0.51)	(0.45)	(0.08)	(0.19)	(4.12)
A	0.06	4.15	68.49	11.83	1.34	0.46	0.10	0.26	13.31

Table 21

Global Corporate Average Transition Rates (1981 - 2016) (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.10)	(2.07)	(6.21)	(2.74)	(0.98)	(0.63)	(0.14)	(0.28)	(3.54)
BBB	0.02	0.29	8.54	64.33	7.08	1.69	0.30	0.91	16.83
	(0.06)	(0.40)	(3.07)	(6.94)	(2.02)	(1.33)	(0.38)	(0.96)	(3.36)
BB	0.01	0.06	0.54	11.22	46.65	11.61	1.28	4.07	24.55
	(0.06)	(0.14)	(0.71)	(3.31)	(7.10)	(2.67)	(0.94)	(3.52)	(4.19)
B	0.00	0.03	0.23	0.84	10.48	41.37	4.66	12.78	29.62
	(0.05)	(0.12)	(0.44)	(0.78)	(3.20)	(5.77)	(1.73)	(7.63)	(4.78)
CCC/C	0.00	0.00	0.14	0.61	1.65	16.62	10.90	40.68	29.39
	(0.00)	(0.00)	(0.53)	(1.27)	(1.75)	(6.98)	(6.14)	(12.82)	(9.01)
Five-year									
AAA	49.58	28.37	4.86	0.81	0.24	0.16	0.08	0.35	15.53
	(11.91)	(13.14)	(2.67)	(1.54)	(0.47)	(0.41)	(0.28)	(0.60)	(6.45)
AA	1.49	50.29	24.87	3.71	0.59	0.39	0.04	0.34	18.26
	(0.93)	(7.74)	(4.69)	(1.65)	(0.63)	(0.59)	(0.10)	(0.38)	(4.55)
A	0.08	5.22	54.95	15.13	2.15	0.71	0.16	0.57	21.04
	(0.10)	(2.31)	(6.65)	(2.21)	(1.11)	(0.88)	(0.18)	(0.42)	(4.05)
BBB	0.03	0.47	10.51	51.02	7.68	2.29	0.40	1.93	25.68
	(0.07)	(0.54)	(3.25)	(7.46)	(1.74)	(1.46)	(0.40)	(1.46)	(4.32)
BB	0.01	0.08	1.06	12.72	30.83	11.08	1.32	7.84	35.06
	(0.06)	(0.18)	(0.99)	(3.26)	(6.80)	(2.19)	(0.91)	(4.84)	(4.51)
B	0.01	0.03	0.28	1.63	10.55	24.83	2.99	19.25	40.42
	(0.11)	(0.09)	(0.58)	(1.22)	(2.73)	(5.50)	(1.02)	(8.87)	(5.51)
CCC/C	0.00	0.00	0.12	0.74	2.98	12.18	2.53	46.96	34.49
	(0.00)	(0.00)	(0.51)	(1.85)	(2.08)	(4.73)	(3.78)	(12.36)	(9.21)
Seven-year									
AAA	38.31	31.58	6.99	1.50	0.30	0.19	0.11	0.53	20.49
	(10.87)	(12.69)	(2.88)	(1.89)	(0.54)	(0.43)	(0.31)	(0.75)	(6.48)
AA	1.55	39.26	28.08	4.91	0.79	0.40	0.03	0.57	24.42
	(0.90)	(4.78)	(3.70)	(1.56)	(0.59)	(0.51)	(0.08)	(0.53)	(4.35)
A	0.08	5.46	45.54	16.73	2.71	0.86	0.15	0.98	27.50
	(0.12)	(1.84)	(5.99)	(1.48)	(1.11)	(0.93)	(0.18)	(0.51)	(3.80)
BBB	0.03	0.61	10.93	42.12	7.40	2.47	0.39	3.00	33.03
	(0.11)	(0.60)	(2.90)	(6.70)	(0.89)	(1.15)	(0.33)	(1.66)	(4.09)
BB	0.00	0.09	1.43	12.50	21.96	9.75	1.06	11.17	42.04
	(0.00)	(0.18)	(1.09)	(3.27)	(5.83)	(2.24)	(0.68)	(5.21)	(3.80)
B	0.01	0.02	0.38	2.10	8.92	15.71	1.75	24.15	46.96
	(0.08)	(0.09)	(0.61)	(1.52)	(1.97)	(4.40)	(0.61)	(8.17)	(5.19)
CCC/C	0.00	0.00	0.23	0.97	3.51	7.95	1.48	49.51	36.34
	(0.00)	(0.00)	(0.61)	(2.17)	(2.00)	(4.07)	(2.08)	(12.04)	(9.39)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 22

Average One-Year Corporate Transition Rates (1981 - 2016) (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
U.S.									
AAA	87.29	8.72	0.58	0.04	0.12	0.04	0.04	0.00	3.16
	(10.21)	(10.38)	(1.17)	(0.21)	(0.37)	(0.28)	(0.28)	(0.00)	(2.49)
AA	0.53	86.91	7.57	0.59	0.08	0.10	0.03	0.03	4.14
	(0.52)	(6.25)	(4.59)	(0.84)	(0.23)	(0.28)	(0.11)	(0.16)	(2.46)
A	0.04	1.77	87.73	5.40	0.40	0.16	0.03	0.07	4.40
	(0.12)	(1.20)	(4.02)	(2.53)	(0.50)	(0.34)	(0.11)	(0.16)	(1.84)
BBB	0.01	0.12	3.57	85.97	3.83	0.62	0.11	0.22	5.55
	(0.05)	(0.18)	(1.96)	(4.68)	(1.76)	(0.88)	(0.17)	(0.32)	(1.97)
BB	0.02	0.05	0.18	4.99	76.78	7.73	0.60	0.80	8.85
	(0.09)	(0.12)	(0.30)	(2.29)	(5.14)	(3.93)	(0.72)	(0.87)	(2.60)
B	0.00	0.04	0.12	0.21	4.72	75.23	4.58	3.92	11.20
	(0.00)	(0.10)	(0.24)	(0.25)	(2.04)	(4.64)	(2.52)	(3.36)	(2.35)
CCC/C	0.00	0.00	0.18	0.28	0.74	11.79	44.06	28.85	14.10
	(0.00)	(0.00)	(0.58)	(0.84)	(1.19)	(8.16)	(8.87)	(11.85)	(5.35)
Europe									
AAA	82.64	11.16	0.62	0.21	0.00	0.00	0.21	0.00	5.17
	(7.76)	(8.48)	(1.70)	(1.23)	(0.00)	(0.00)	(1.02)	(0.00)	(5.03)
AA	0.29	84.99	10.43	0.58	0.00	0.00	0.00	0.00	3.72
	(0.50)	(7.19)	(6.39)	(1.19)	(0.00)	(0.00)	(0.00)	(0.00)	(2.05)
A	0.01	1.92	86.69	6.08	0.19	0.01	0.00	0.04	5.06
	(0.05)	(1.43)	(4.48)	(3.37)	(0.37)	(0.06)	(0.00)	(0.10)	(1.88)
BBB	0.00	0.10	4.26	83.71	3.89	0.37	0.10	0.08	7.50
	(0.00)	(0.21)	(1.97)	(3.68)	(2.76)	(0.56)	(0.30)	(0.23)	(2.56)
BB	0.00	0.00	0.09	5.22	72.78	7.64	0.41	0.41	13.45
	(0.00)	(0.00)	(0.70)	(2.37)	(6.66)	(3.54)	(1.09)	(0.93)	(4.40)
B	0.00	0.00	0.04	0.37	6.65	71.22	4.37	2.53	14.82
	(0.00)	(0.00)	(0.26)	(0.60)	(3.10)	(6.75)	(2.54)	(3.31)	(5.34)
CCC/C	0.00	0.00	0.00	0.00	0.00	13.62	41.28	26.38	18.72
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(12.63)	(18.97)	(19.01)	(11.78)
Emerging markets									
AAA	94.12	2.94	0.00	0.00	0.00	0.00	0.00	0.00	2.94
	(17.37)	(11.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(14.11)
AA	1.15	88.54	6.88	0.29	0.00	0.00	0.00	0.00	3.15
	(4.89)	(11.61)	(8.28)	(1.71)	(0.00)	(0.00)	(0.00)	(0.00)	(3.99)
A	0.00	1.97	89.68	5.23	0.38	0.38	0.00	0.05	2.30
	(0.00)	(1.60)	(5.57)	(4.54)	(0.87)	(1.28)	(0.00)	(0.17)	(1.17)
BBB	0.00	0.02	2.63	85.95	4.79	0.46	0.22	0.13	5.81
	(0.00)	(0.10)	(2.44)	(5.91)	(4.54)	(1.40)	(1.17)	(0.41)	(2.06)
BB	0.00	0.00	0.00	4.57	79.89	4.71	0.82	0.69	9.32

Table 22

Average One-Year Corporate Transition Rates (1981 - 2016) (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.00)	(0.00)	(0.00)	(2.60)	(4.84)	(2.37)	(2.39)	(1.26)	(3.51)
B	0.00	0.00	0.00	0.05	6.37	71.88	3.73	3.37	14.61
	(0.00)	(0.00)	(0.00)	(0.25)	(4.02)	(5.40)	(3.29)	(3.77)	(3.23)
CCC/C	0.00	0.00	0.00	0.00	0.50	17.70	45.91	17.70	18.20
	(0.00)	(0.00)	(0.00)	(0.00)	(0.98)	(13.00)	(14.01)	(15.89)	(11.16)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. For Europe and emerging markets, calculations are for 1996-2016 due to sample size considerations. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 23

Average One-Year Transition Rates For Global Corporates By Rating Modifier (1981 - 2016) (%)																		
From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC	D
AAA	87.05	5.78	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	0.05	0.00
	(7.14)	(6.00)	(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)	(0.35)	(0.00)
AA+	2.42	77.53	11.54	3.78	0.76	0.40	0.20	0.05	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(3.61)	(10.60)	(7.14)	(4.10)	(2.38)	(0.85)	(0.49)	(0.25)	(0.68)	(0.23)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
AA	0.44	1.29	80.25	8.71	2.83	1.21	0.39	0.40	0.13	0.08	0.05	0.03	0.02	0.02	0.00	0.02	0.05	0.02
	(0.51)	(1.57)	(8.79)	(6.14)	(2.60)	(1.23)	(0.65)	(0.82)	(0.35)	(0.24)	(0.16)	(0.13)	(0.10)	(0.12)	(0.00)	(0.09)	(0.15)	(0.09)
AA-	0.04	0.12	3.97	78.01	10.07	2.34	0.61	0.28	0.16	0.07	0.03	0.00	0.00	0.03	0.09	0.00	0.00	0.03
	(0.13)	(0.31)	(4.32)	(7.31)	(4.85)	(2.61)	(0.83)	(0.50)	(0.45)	(0.25)	(0.20)	(0.00)	(0.00)	(0.15)	(0.38)	(0.00)	(0.00)	(0.10)
A+	0.00	0.06	0.48	4.58	77.51	9.10	2.29	0.66	0.35	0.09	0.06	0.10	0.01	0.07	0.03	0.00	0.00	0.05
	(0.00)	(0.20)	(0.70)	(2.56)	(5.41)	(3.02)	(1.49)	(0.65)	(0.44)	(0.19)	(0.17)	(0.25)	(0.05)	(0.19)	(0.14)	(0.00)	(0.00)	(0.15)
A	0.04	0.05	0.24	0.46	5.26	78.04	7.04	2.57	0.93	0.29	0.12	0.11	0.08	0.10	0.02	0.00	0.02	0.06
	(0.13)	(0.14)	(0.51)	(0.48)	(2.02)	(5.14)	(3.04)	(1.69)	(0.94)	(0.39)	(0.21)	(0.28)	(0.31)	(0.34)	(0.10)	(0.00)	(0.06)	(0.12)
A-	0.04	0.01	0.07	0.17	0.48	6.72	76.84	7.62	2.22	0.62	0.15	0.15	0.13	0.12	0.03	0.01	0.03	0.07
	(0.20)	(0.05)	(0.15)	(0.28)	(0.62)	(3.24)	(5.63)	(3.08)	(1.54)	(0.63)	(0.34)	(0.36)	(0.24)	(0.30)	(0.08)	(0.08)	(0.15)	(0.19)
BBB+	0.00	0.01	0.06	0.07	0.23	0.86	7.26	74.40	8.41	1.80	0.41	0.34	0.15	0.18	0.12	0.03	0.07	0.12
	(0.00)	(0.05)	(0.16)	(0.19)	(0.45)	(1.04)	(3.01)	(5.92)	(3.35)	(1.44)	(0.53)	(0.59)	(0.22)	(0.43)	(0.31)	(0.10)	(0.18)	(0.27)
BBB	0.01	0.01	0.05	0.03	0.11	0.34	1.12	7.68	75.01	6.41	1.41	0.66	0.30	0.25	0.13	0.04	0.06	0.17
	(0.07)	(0.07)	(0.14)	(0.13)	(0.22)	(0.69)	(0.99)	(3.19)	(4.42)	(2.31)	(1.06)	(0.61)	(0.49)	(0.46)	(0.39)	(0.10)	(0.13)	(0.28)
BBB-	0.01	0.01	0.02	0.05	0.06	0.16	0.31	1.26	9.11	71.63	5.85	2.18	0.92	0.41	0.25	0.17	0.23	0.26
	(0.08)	(0.05)	(0.06)	(0.21)	(0.17)	(0.40)	(0.58)	(1.15)	(3.25)	(5.16)	(2.59)	(1.52)	(0.78)	(0.83)	(0.48)	(0.46)	(0.57)	(0.41)
BB+	0.05	0.00	0.00	0.03	0.02	0.10	0.08	0.46	1.84	11.51	63.56	7.80	2.95	1.04	0.65	0.26	0.43	0.36
	(0.23)	(0.00)	(0.00)	(0.13)	(0.09)	(0.40)	(0.29)	(0.72)	(1.87)	(4.47)	(5.95)	(4.32)	(1.96)	(1.64)	(1.19)	(0.39)	(0.96)	(0.64)
BB	0.00	0.00	0.04	0.01	0.00	0.07	0.05	0.19	0.56	2.26	9.67	64.74	8.13	2.34	1.07	0.35	0.60	0.58
	(0.00)	(0.00)	(0.22)	(0.07)	(0.00)	(0.38)	(0.22)	(0.43)	(0.87)	(2.19)	(4.36)	(5.24)	(2.96)	(1.53)	(1.36)	(0.59)	(1.00)	(0.69)
BB-	0.00	0.00	0.00	0.01	0.01	0.01	0.05	0.11	0.25	0.39	1.87	9.34	63.09	8.64	3.19	0.83	0.75	1.05
	(0.00)	(0.00)	(0.00)	(0.10)	(0.08)	(0.08)	(0.29)	(0.25)	(0.45)	(0.65)	(1.67)	(3.91)	(5.48)	(3.85)	(1.60)	(0.85)	(0.85)	(1.45)
B+	0.00	0.01	0.00	0.03	0.00	0.03	0.07	0.05	0.06	0.12	0.31	1.51	8.07	63.14	8.91	2.55	1.76	2.15
	(0.00)	(0.06)	(0.00)	(0.14)	(0.00)	(0.09)	(0.21)	(0.13)	(0.17)	(0.21)	(0.35)	(1.09)	(3.48)	(5.67)	(3.66)	(1.31)	(1.65)	(2.04)
B	0.00	0.00	0.01	0.01	0.00	0.04	0.05	0.02	0.07	0.04	0.14	0.26	1.28	7.94	61.36	8.55	4.17	3.89
	(0.00)	(0.00)	(0.09)	(0.06)	(0.00)	(0.21)	(0.39)	(0.08)	(0.31)	(0.11)	(0.39)	(0.59)	(1.27)	(3.26)	(7.42)	(3.46)	(3.36)	(4.30)
B-	0.00	0.00	0.00	0.00	0.02	0.04	0.00	0.08	0.06	0.12	0.10	0.18	0.47	2.32	10.16	53.36	11.77	7.49

Table 23

Average One-Year Transition Rates For Global Corporates By Rating Modifier (1981 - 2016) (%) (cont.)																		
From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC	D
	(0.00)	(0.00)	(0.00)	(0.00)	(0.32)	(0.31)	(0.00)	(0.35)	(0.19)	(0.46)	(0.47)	(0.92)	(0.92)	(2.32)	(5.52)	(7.13)	(4.28)	(6.37)
CCC/C	0.00	0.00	0.00	0.00	0.03	0.00	0.10	0.06	0.06	0.06	0.03	0.16	0.44	1.08	2.73	9.11	43.97	26.78
	(0.00)	(0.00)	(0.00)	(0.00)	(0.24)	(0.00)	(0.39)	(0.49)	(0.33)	(0.39)	(0.24)	(0.53)	(0.79)	(1.60)	(3.12)	(5.65)	(9.03)	(11.48)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

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

Chart 25

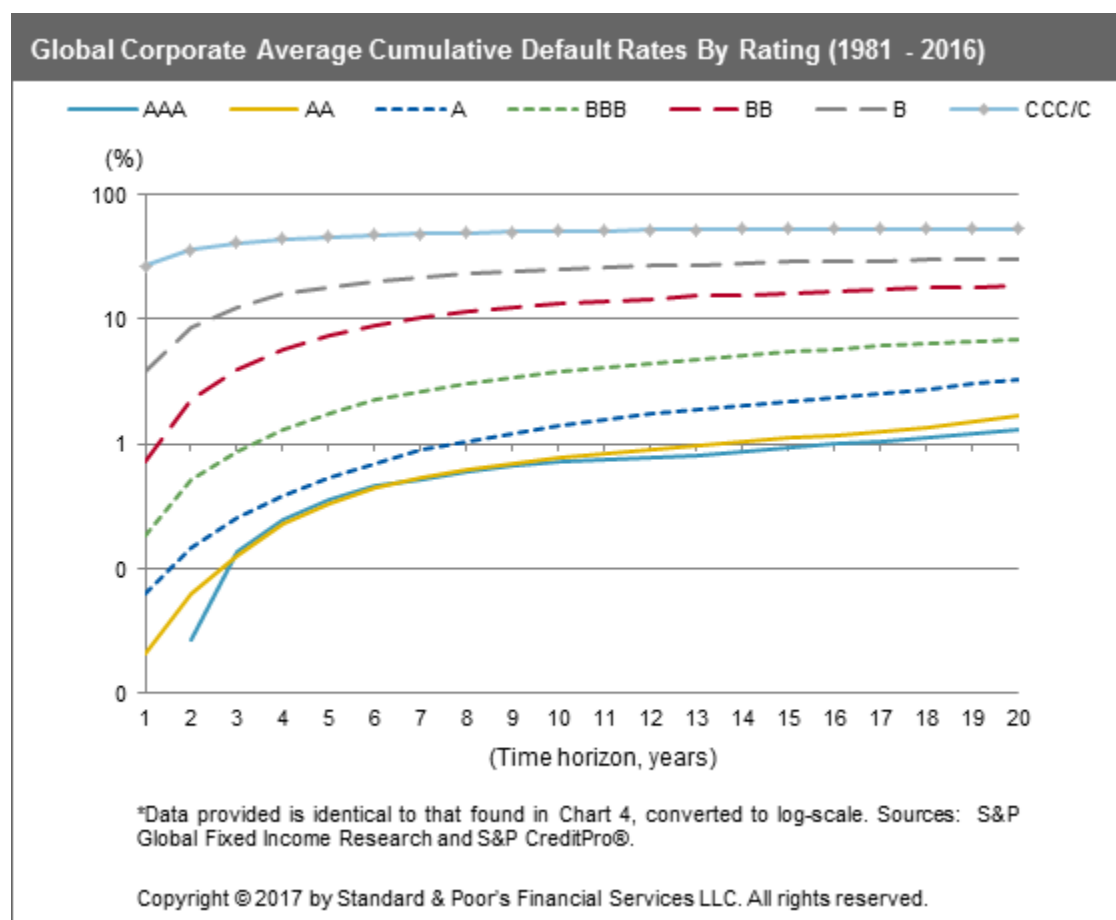


Table 24

Global Corporate Average Cumulative Default Rates (1981 - 2016) (%)															
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	0.60	0.66	0.72	0.75	0.78	0.81	0.88	0.94
AA	0.02	0.06	0.13	0.23	0.33	0.44	0.54	0.62	0.69	0.77	0.85	0.91	0.98	1.05	1.11
A	0.06	0.15	0.25	0.38	0.53	0.69	0.88	1.05	1.23	1.41	1.57	1.73	1.89	2.03	2.20

Table 24

Global Corporate Average Cumulative Default Rates (1981 - 2016) (%) (cont.)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
BBB	0.18	0.51	0.88	1.33	1.78	2.24	2.63	3.01	3.39	3.76	4.16	4.48	4.79	5.10	5.43
BB	0.72	2.24	4.02	5.80	7.45	8.97	10.26	11.41	12.42	13.33	14.06	14.71	15.29	15.80	16.34
B	3.76	8.56	12.66	15.87	18.32	20.32	21.96	23.23	24.37	25.43	26.34	27.03	27.64	28.21	28.80
CCC/C	26.78	35.88	40.96	44.06	46.42	47.38	48.56	49.52	50.38	51.03	51.55	52.10	52.81	53.37	53.37
Investment grade	0.10	0.27	0.46	0.71	0.96	1.21	1.45	1.67	1.89	2.11	2.33	2.51	2.69	2.86	3.05
Speculative grade	3.83	7.48	10.63	13.20	15.29	17.01	18.45	19.65	20.71	21.67	22.47	23.13	23.73	24.27	24.80
All rated	1.52	2.99	4.27	5.35	6.25	7.02	7.67	8.22	8.72	9.18	9.58	9.91	10.22	10.50	10.78

Sources: S&P Global Fixed Income Research and S&P 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 - 2016) (%)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
U.S.															
AAA	0.00	0.04	0.17	0.29	0.42	0.54	0.59	0.67	0.76	0.85	0.90	0.94	0.99	1.09	1.20
AA	0.03	0.08	0.18	0.31	0.45	0.60	0.74	0.86	0.96	1.07	1.17	1.25	1.34	1.42	1.51
A	0.07	0.20	0.36	0.54	0.73	0.95	1.19	1.41	1.65	1.89	2.11	2.32	2.52	2.69	2.89
BBB	0.22	0.58	0.99	1.50	2.05	2.60	3.09	3.58	4.07	4.55	5.02	5.37	5.71	6.06	6.42
BB	0.80	2.52	4.57	6.57	8.38	10.14	11.62	12.98	14.17	15.25	16.13	16.91	17.61	18.22	18.84
B	3.92	9.00	13.43	16.88	19.57	21.76	23.56	24.98	26.24	27.42	28.42	29.20	29.90	30.53	31.16
CCC/C	28.85	39.23	44.94	48.55	51.31	52.53	53.95	55.00	55.96	56.66	57.32	57.93	58.60	59.14	59.14
Investment grade	0.12	0.32	0.56	0.86	1.17	1.49	1.80	2.09	2.38	2.67	2.95	3.17	3.39	3.59	3.81
Speculative grade	4.18	8.25	11.81	14.68	17.00	18.95	20.59	21.95	23.16	24.26	25.18	25.95	26.64	27.24	27.83
All rated	1.80	3.59	5.16	6.48	7.57	8.52	9.32	10.01	10.63	11.21	11.71	12.12	12.49	12.82	13.16
Europe															
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
AA	0.00	0.03	0.07	0.14	0.21	0.29	0.33								
A	0.04	0.08	0.13	0.19	0.29	0.39	0.51								
BBB	0.08	0.23	0.39	0.54	0.65	0.90	1.13								
BB	0.41	1.38	2.35	3.06	4.20	5.15	6.11								
B	2.53	6.21	9.37	11.86	13.86	15.26	16.06								
CCC/C	26.38	35.40	40.64	45.64	48.01	48.01	49.05								

Table 25

Average Cumulative Default Rates For Corporates By Region (1981 - 2016) (%) (cont.)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Investment grade	0.04	0.12	0.19	0.28	0.38	0.50	0.63								
Speculative grade	2.73	5.40	7.59	9.28	10.84	11.94	12.83								
All rated	0.67	1.30	1.80	2.19	2.54	2.83	3.08								
Emerging markets															
AA	0.00	0.00	0.00	0.00	0.00										
A	0.05	0.05	0.05	0.05	0.05										
BBB	0.13	0.64	1.23	1.93	2.59										
BB	0.69	2.10	3.63	5.13	6.26										
B	3.37	6.86	9.39	11.33	12.59										
CCC/C	17.70	22.03	24.44	25.13	25.88										
Investment grade	0.10	0.43	0.81	1.27	1.69										
Speculative grade	2.91	5.39	7.39	9.03	10.19										
All rated	1.69	3.24	4.55	5.68	6.53										

Figures for Europe and the emerging markets are calculated for 1996 - 2016 due to sample-size considerations. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 26

Global Corporate Average Cumulative Default Rates By Rating Modifier (1981 - 2016) (%)															
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	0.60	0.66	0.72	0.75	0.78	0.81	0.88	0.94
AA+	0.00	0.05	0.05	0.11	0.16	0.22	0.28	0.33	0.40	0.46	0.52	0.59	0.65	0.72	0.79
AA	0.02	0.03	0.09	0.22	0.37	0.49	0.62	0.73	0.83	0.93	1.01	1.08	1.19	1.26	1.33
AA-	0.03	0.09	0.18	0.26	0.35	0.47	0.54	0.60	0.66	0.72	0.78	0.85	0.88	0.93	0.98
A+	0.05	0.10	0.21	0.35	0.47	0.57	0.69	0.82	0.97	1.12	1.27	1.43	1.61	1.83	2.02
A	0.06	0.16	0.25	0.37	0.51	0.71	0.90	1.08	1.29	1.53	1.73	1.89	2.03	2.13	2.32
A-	0.07	0.18	0.29	0.42	0.60	0.78	1.04	1.23	1.38	1.51	1.63	1.79	1.94	2.08	2.19
BBB+	0.12	0.32	0.56	0.82	1.08	1.39	1.63	1.88	2.16	2.44	2.72	2.92	3.18	3.51	3.88
BBB	0.17	0.44	0.69	1.08	1.47	1.87	2.23	2.60	2.99	3.39	3.80	4.17	4.46	4.57	4.79
BBB-	0.26	0.81	1.48	2.24	3.01	3.70	4.32	4.90	5.39	5.84	6.34	6.76	7.15	7.71	8.13
BB+	0.36	1.17	2.12	3.09	4.08	5.02	5.82	6.41	7.10	7.79	8.23	8.75	9.25	9.66	10.27
BB	0.58	1.79	3.57	5.22	6.87	8.19	9.39	10.38	11.31	12.12	12.94	13.65	14.05	14.36	14.77
BB-	1.05	3.28	5.60	7.96	10.01	12.02	13.68	15.28	16.55	17.66	18.50	19.18	19.94	20.67	21.27
B+	2.15	5.89	9.51	12.59	14.98	16.83	18.54	20.02	21.41	22.66	23.68	24.41	25.11	25.76	26.41
B	3.89	8.85	13.03	16.18	18.57	20.77	22.28	23.34	24.27	25.25	26.04	26.75	27.37	27.93	28.55
B-	7.49	14.64	19.91	23.59	26.42	28.53	30.21	31.25	31.95	32.48	33.19	33.73	33.96	34.24	34.55
CCC/C	26.78	35.88	40.96	44.06	46.42	47.38	48.56	49.52	50.38	51.03	51.55	52.10	52.81	53.37	53.37

Table 26

Global Corporate Average Cumulative Default Rates By Rating Modifier (1981 - 2016) (%) (cont.)															
Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Investment grade	0.10	0.27	0.46	0.71	0.96	1.21	1.45	1.67	1.89	2.11	2.33	2.51	2.69	2.86	3.05
Speculative grade	3.83	7.48	10.63	13.20	15.29	17.01	18.45	19.65	20.71	21.67	22.47	23.13	23.73	24.27	24.80
All rated	1.52	2.99	4.27	5.35	6.25	7.02	7.67	8.22	8.72	9.18	9.58	9.91	10.22	10.50	10.78

Sources: S&P Global Fixed Income Research and S&P 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. As one measure of 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 weighted average one-year Gini coefficient is 82.3%, with a three-year of 75.1%, five-year of 71.7%, and seven-year of 69.5% (see Charts 26-29).

Table 27

Corporate Gini Coefficients By Region (1981-2016)				
	--Time horizon (years)--			
	1	3	5	7
Global				
Weighted average	82.30	75.09	71.72	69.50
Average	84.89	78.22	74.01	70.62
Standard deviation	5.46	5.20	5.58	5.29
U.S.				
Weighted average	80.66	72.98	69.58	67.53
Average	83.89	76.27	71.93	68.54
Standard deviation	6.97	6.82	7.03	6.47
Europe				
Weighted average	90.28	86.02	82.95	78.33
Average	91.82	88.57	82.67	74.39
Standard deviation	5.20	5.52	6.80	10.51

Average and standard deviation for Europe calculated for 1996-2016 due to sample-size considerations. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

In line with expectations, 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, 96% of defaults occurred in the speculative-grade category ('BB+' or lower), while these ratings constituted only 38% of all corporate ratings (see Chart 26). Looking at the seven-year Lorenz curve, speculative-grade issuers constituted 86.9% of defaulters and only 34.7% 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 - 2016)

Sector	--Time horizon (years)--			
	1	3	5	7
Financial				
Weighted average	79.69	68.47	60.86	55.88
Average	81.42	74.29	65.83	58.78
Standard deviation	19.66	14.64	15.96	14.25
Nonfinancial				
Weighted average	80.73	73.00	69.90	68.13
Average	84.12	76.94	73.01	69.74
Standard deviation	6.11	5.44	5.63	5.17

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Chart 26

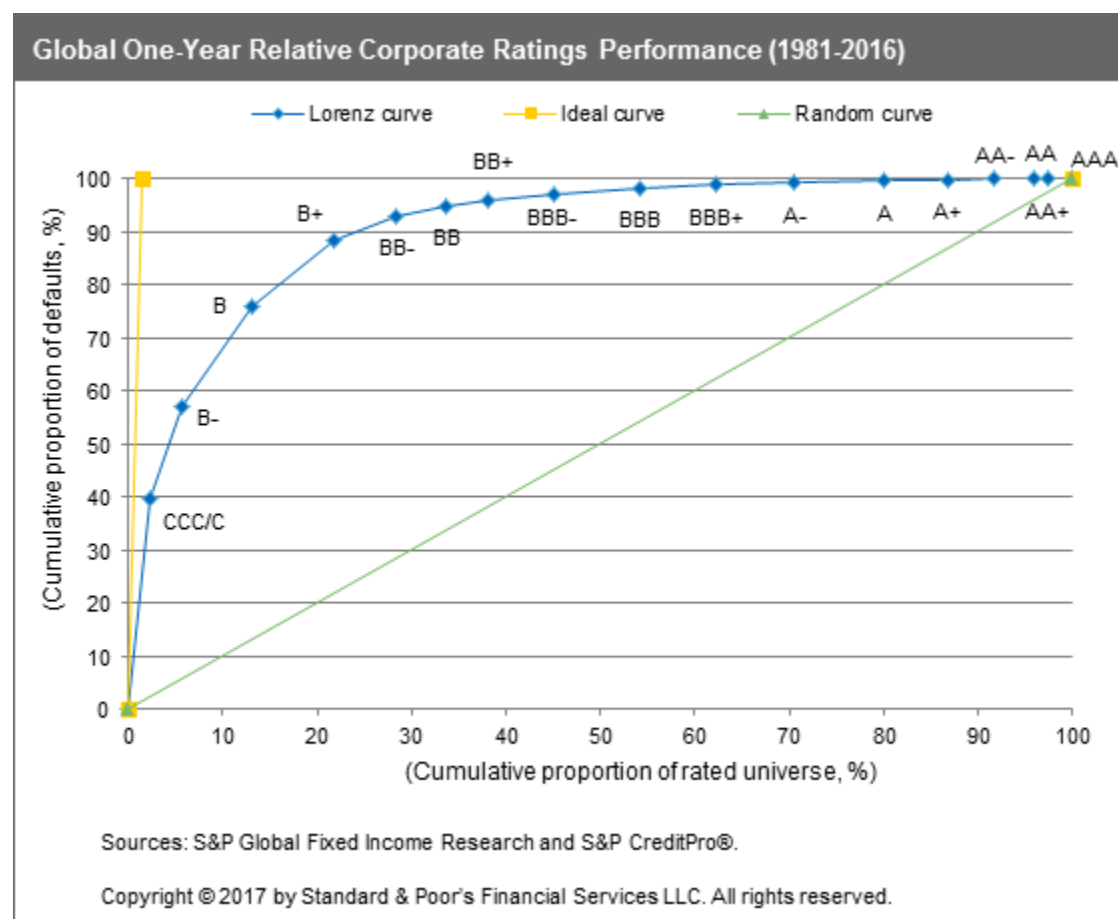


Chart 27

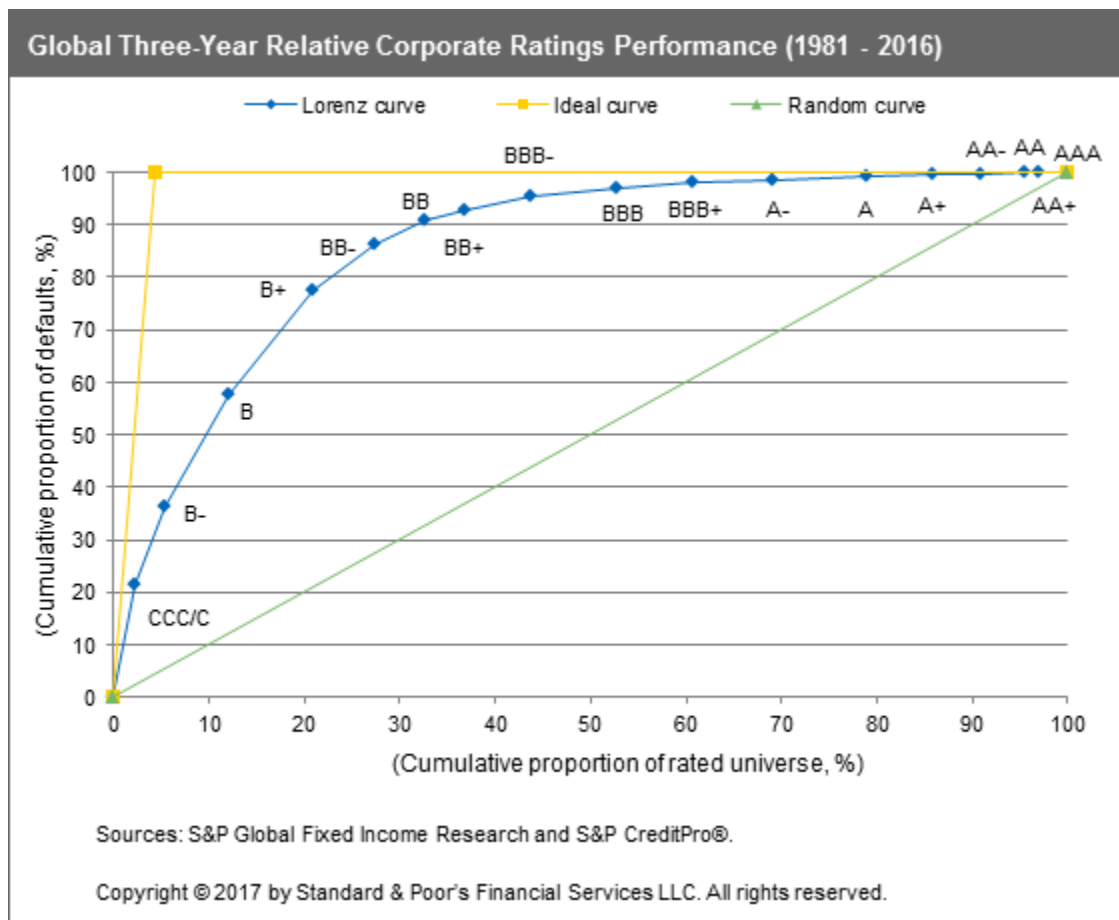


Chart 28

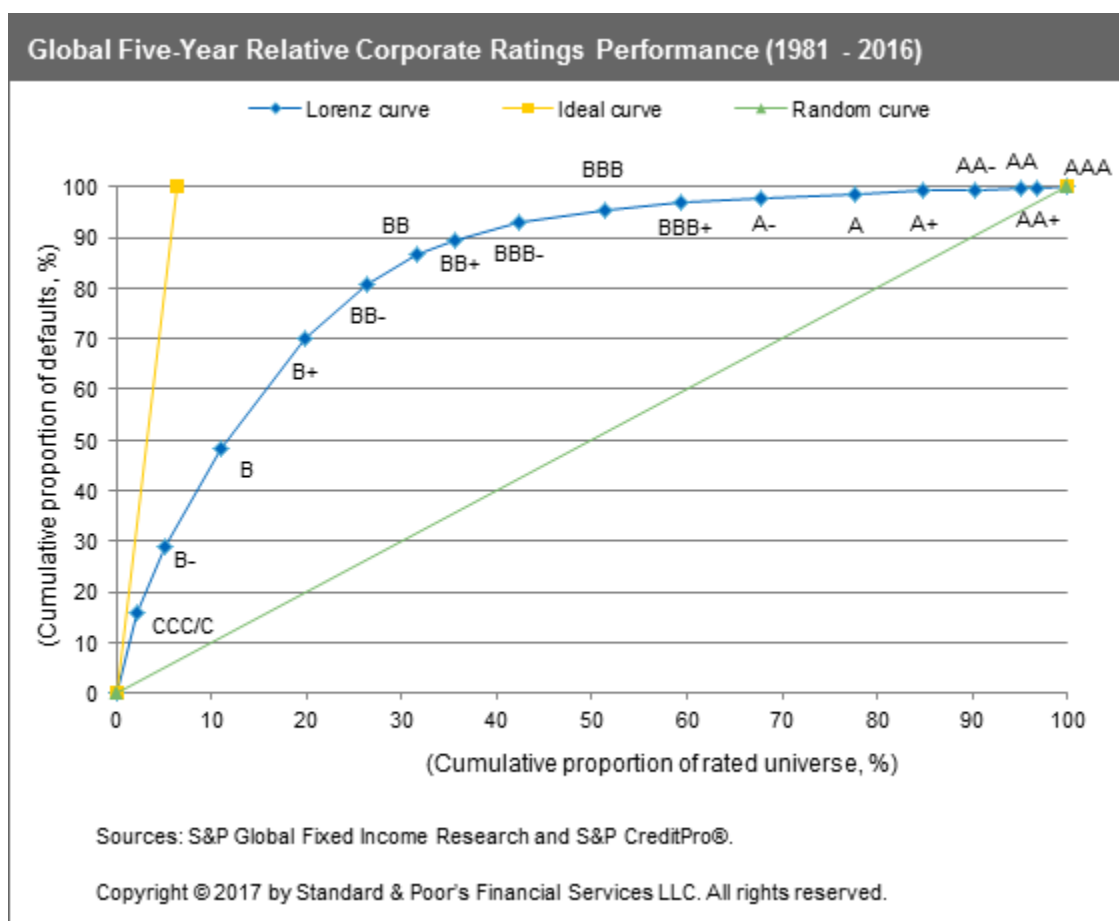


Chart 29

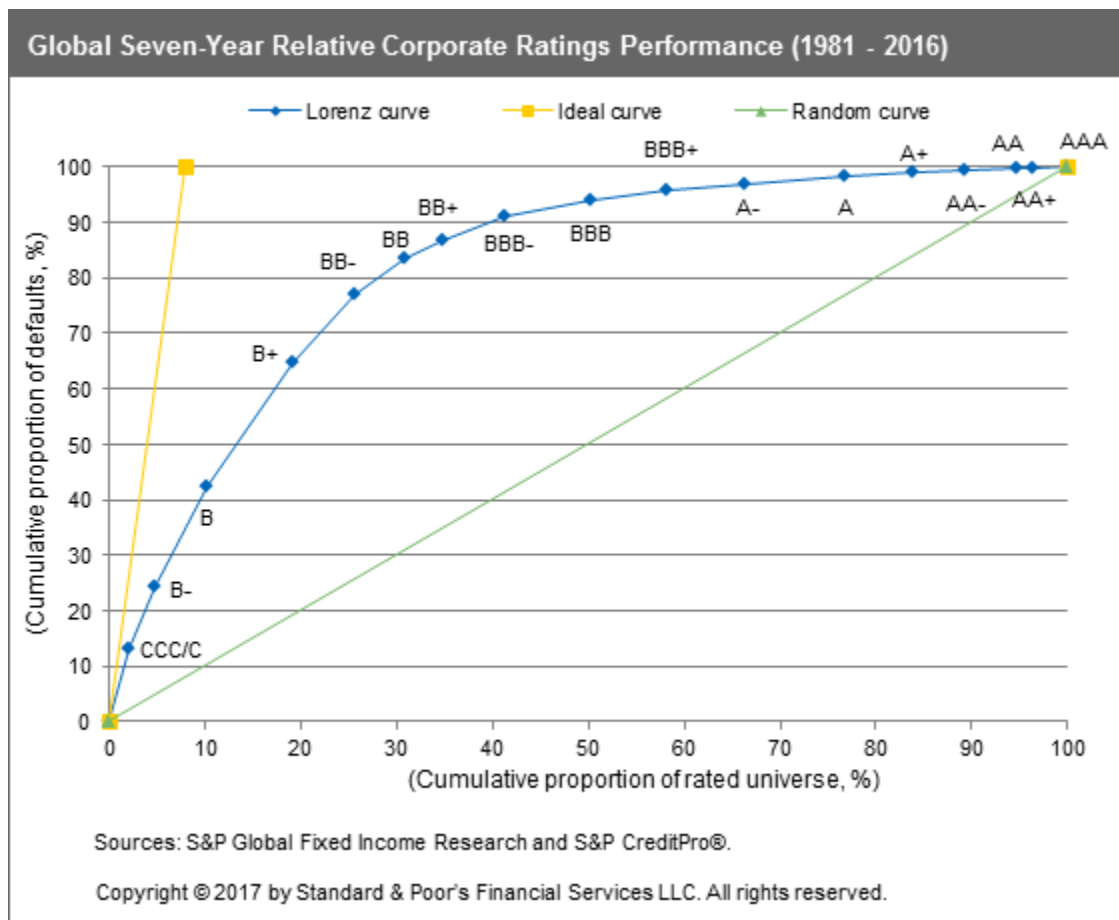
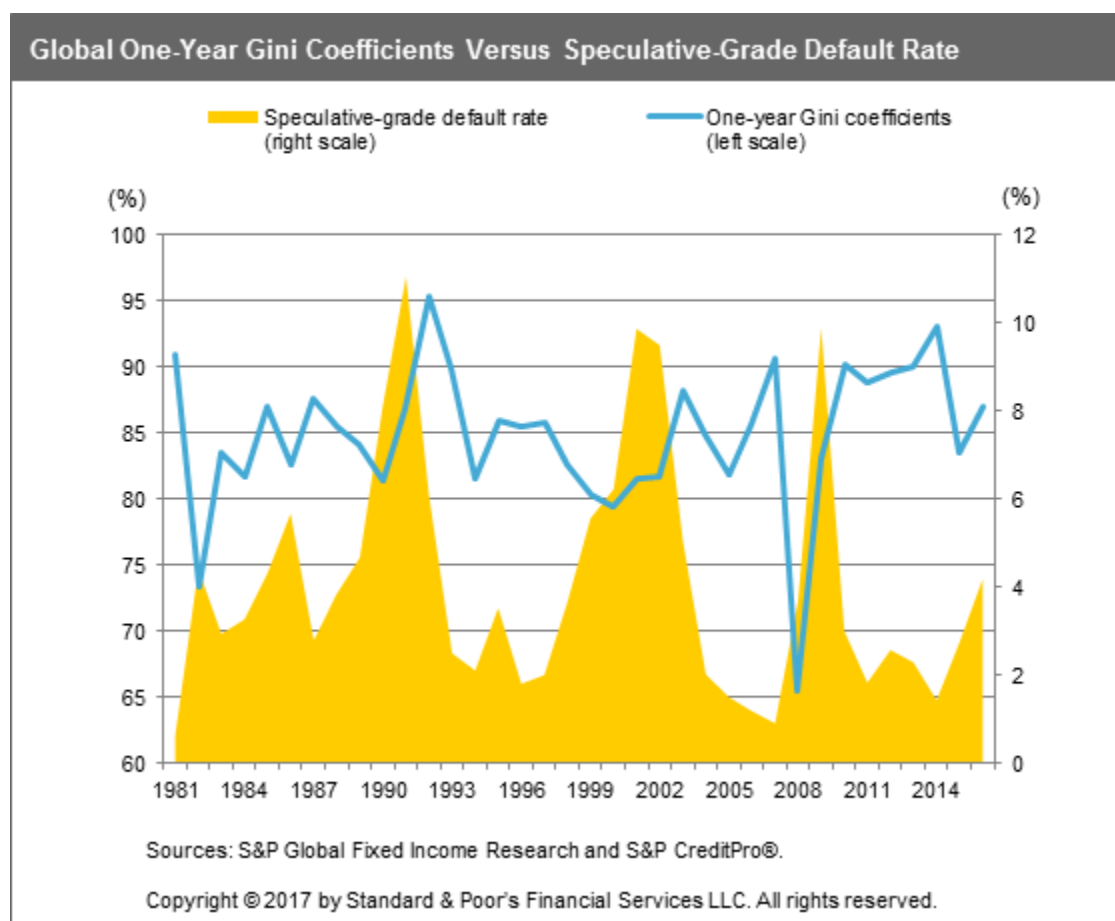


Chart 30



One-year Gini coefficients appear to be broadly cyclical and negatively correlated with 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. However, the experience in 2016 runs counter to this, as the one-year Gini of 87% was higher than the 83.6% reading in 2015, and this came with a higher number of defaults (162) than in 2015 (113). The 2016 Gini was also higher than the long-term average of 84.9%.

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 Ratings' 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 18,979 companies that S&P Global Ratings rated as of Dec. 31, 1980, or that were first rated between that date and Dec. 31, 2016. 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 also 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 default on one or more of its financial obligations, including rated and unrated financial obligations but excluding hybrid instruments classified as regulatory capital or in non-payment according to terms. An obligor is considered in default unless S&P Global Ratings believes that such payments will be made within five business days of the due date in the absence of a stated grace period, or within the earlier of the

stated grace period or 30 calendar days. 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. An 'SD' rating is assigned when S&P Global Ratings 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. We lower our rating on an obligor to 'D' or 'SD' if it is conducting a distressed exchange offer. '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 the "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.

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, Namibia, 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.

Calculations

Static pool methodology

S&P Global Ratings 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, for example) 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 Ratings 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 12:00:01 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 12:00:01 a.m. Jan. 1, 1982. We used the same method to form static pools for 1983 through 2016. From Jan. 1, 1981, to Dec. 31, 2016, a total of 17,596 first-time rated organizations were added to form new static pools, while we excluded 2,576 defaulting companies and 9,458 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 36 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 36 pools was 3.83%, meaning that an average of 96.17% 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 3.79% for the first 35 pools (96.21% of those companies that did not default in the first year survived the second year) and 3.41% for the first 34 pools (96.59% of those companies that did not default by the second year survived the third year), respectively. Multiplying 96.17% by 96.21% results in a 92.52% survival rate to the end of the second year, which is a two-year average cumulative default rate of 7.48%. Multiplying 92.52% by 96.59% results in an 89.37% survival rate to the end of the third year, which is a three-year average cumulative default rate of 10.63%.

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, 2016, had 36 one-year transitions, while companies first rated on Jan. 1, 2016, 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, 2016, 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										
--Rating distribution at year-end--										
--Began the year as investment grade--						--Began the year as speculative grade--				
	Number of issuers as of Jan. 1	Ended the year investment grade (%)	Ended the year speculative grade* (%)	Defaulted¶ (%)	Rating withdrawn (%)	Number of issuers as of Jan. 1	Ended the year investment grade§ (%)	Ended the year speculative 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	1,619	96.42	1.24	0.00	2.35	525	6.29	78.67	6.10	8.95
1993	1,767	92.59	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	2,491	93.26	1.16	0.08	5.50	997	4.31	80.94	2.01	12.74

Table 29

Summary Of One-Year Global Corporate Rating Transitions (cont.)										
--Rating distribution at year-end--										
--Began the year as investment grade--						--Began the year as speculative grade--				
	Number of issuers as of Jan. 1	Ended the year investment grade (%)	Ended the year speculative grade* (%)	Defaulted¶ (%)	Rating withdrawn (%)	Number of issuers as of Jan. 1	Ended the year investment grade§ (%)	Ended the year speculative grade (%)	Defaulted (%)	Rating withdrawn (%)
1998	2,766	90.42	2.17	0.14	7.27	1,310	2.98	83.89	3.66	9.47
1999	2,873	90.57	1.64	0.17	7.62	1,654	1.63	81.26	5.56	11.55
2000	2,929	91.57	1.78	0.24	6.42	1,751	2.17	83.32	6.23	8.28
2001	3,003	90.64	2.66	0.23	6.46	1,753	1.54	79.24	9.87	9.36
2002	3,111	89.39	3.99	0.42	6.20	1,675	1.79	79.58	9.49	9.13
2003	3,025	92.43	2.51	0.10	4.96	1,759	1.53	81.98	5.06	11.43
2004	3,140	94.08	1.02	0.03	4.87	1,879	2.18	84.57	2.02	11.23
2005	3,248	92.83	1.60	0.03	5.54	2,061	3.06	82.34	1.50	13.10
2006	3,270	93.76	1.47	0.00	4.77	2,195	2.19	81.96	1.18	14.67
2007	3,344	90.13	1.73	0.00	8.13	2,307	3.03	81.84	0.91	14.22
2008	3,321	92.20	1.93	0.42	5.45	2,412	2.20	83.29	3.69	10.82
2009	3,355	89.33	3.40	0.33	6.94	2,265	1.28	77.09	9.89	11.74
2010	3,181	94.72	0.94	0.00	4.34	2,131	2.35	84.89	3.00	9.76
2011	3,233	93.29	1.76	0.03	4.92	2,400	2.38	84.00	1.83	11.79
2012	3,243	93.71	1.76	0.00	4.53	2,564	1.91	85.61	2.57	9.91
2013	3,252	94.96	1.35	0.00	3.69	2,792	2.11	85.35	2.29	10.24
2014	3,346	95.70	1.23	0.00	3.08	3,143	1.40	85.68	1.43	11.49
2015	3,498	92.77	2.54	0.00	4.69	3,414	1.38	83.80	2.75	12.07
2016	3,515	93.09	1.76	0.00	5.15	3,413	1.17	83.01	4.19	11.63
Weighted average		92.92	1.94	0.10	5.05		2.36	82.58	3.83	11.22
Median		93.18	1.77	0.04	4.89		2.93	82.28	3.40	11.33
Standard deviation		2.11	0.86	0.12	1.67		1.28	3.41	2.72	2.74
Minimum		89.33	0.62	0.00	1.22		1.17	74.77	0.62	4.67
Maximum		97.36	3.99	0.42	8.13		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: S&P Global Fixed Income Research and S&P 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 1981-2014 with the ratings at the end of the years 1983-2016. 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 Tables 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 1981-2015.

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 2016 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 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 36 cohorts beginning with the 1981 cohort and ending with the 2016 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 36-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 (5.29) 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 2010 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 36 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 - 2016) (%)																
--Time horizon (years)--																
	Number of 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	2,144	1.49	2.01	2.33	2.94	3.08	3.40	3.82	4.15	4.85	5.88	6.95	7.37	7.56	7.70	7.84
1993	2,327	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	7.43	7.56
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	6.42	7.78	8.37	8.61	8.82	9.07	9.17	9.69	10.53
1996	3,128	0.51	1.09	1.82	2.97	4.00	5.72	7.23	7.90	8.18	8.41	8.63	8.76	9.30	10.13	10.29
1997	3,488	0.63	1.61	2.92	4.33	6.25	8.00	8.92	9.20	9.43	9.72	9.86	10.46	11.30	11.38	11.50

Table 30

Static Pool Cumulative Global Corporate Default Rates Among All Ratings (1981 - 2016) (%) (cont.)																
--Time horizon (years)--																
	Number of issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998	4,076	1.28	3.24	5.23	7.88	10.08	11.31	11.80	12.12	12.44	12.59	13.22	14.16	14.25	14.38	14.50
1999	4,527	2.14	4.66	8.00	10.89	12.37	12.92	13.28	13.63	13.78	14.58	15.73	15.90	16.04	16.19	16.28
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	4,786	3.59	5.62	6.41	6.87	7.23	7.44	8.38	9.97	10.18	10.34	10.53	10.78	10.84	11.09	11.37
2003	4,784	1.92	2.72	3.22	3.62	3.83	4.81	6.63	6.90	7.07	7.34	7.63	7.71	7.98	8.26	
2004	5,019	0.78	1.32	1.71	1.95	2.99	4.98	5.32	5.54	5.84	6.12	6.20	6.48	6.75		
2005	5,309	0.60	1.02	1.36	2.56	4.86	5.35	5.65	5.99	6.29	6.42	6.78	7.10			
2006	5,465	0.48	0.88	2.32	5.03	5.65	6.08	6.57	6.94	7.08	7.47	7.87				
2007	5,651	0.37	2.04	5.29	6.16	6.62	7.22	7.64	7.82	8.28	8.72					
2008	5,733	1.80	5.58	6.66	7.12	7.85	8.25	8.51	9.04	9.51						
2009	5,620	4.18	5.34	5.82	6.57	6.98	7.26	7.79	8.35							
2010	5,312	1.20	1.90	2.75	3.22	3.61	4.18	4.91								
2011	5,633	0.80	1.94	2.63	3.11	3.89	4.81									
2012	5,807	1.14	2.07	2.57	3.46	4.56										
2013	6,044	1.06	1.65	2.83	4.20											
2014	6,489	0.69	1.97	3.56												
2015	6,912	1.36	3.27													
2016	6,928	2.06														
Summary statistics																
Marginal average		1.52	1.49	1.32	1.13	0.95	0.81	0.70	0.60	0.54	0.51	0.44	0.37	0.34	0.31	0.32
Cumulative average		1.52	2.99	4.27	5.35	6.25	7.02	7.67	8.22	8.72	9.18	9.58	9.92	10.22	10.50	10.78
Standard deviation		1.01	1.75	2.28	2.60	2.72	2.64	2.52	2.43	2.42	2.43	2.47	2.53	2.51	2.44	2.41
Median		1.16	2.04	3.39	4.33	5.72	6.26	7.43	8.35	9.05	9.36	9.86	10.27	10.48	10.69	10.92
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	6.75	7.43	7.56
Maximum		4.18	7.36	9.31	10.92	12.37	12.92	13.28	13.63	13.78	14.91	15.73	15.90	16.04	16.19	16.28

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 31

Static Pool Cumulative Global Corporate Default Rates Among All Investment-Grade Ratings (1981 - 2016) (%)																
--Time horizon (years)--																
	Number of 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

Table 31

Static Pool Cumulative Global Corporate Default Rates Among All Investment-Grade Ratings (1981 - 2016) (%) (cont.)																
	Number of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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	1,619	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	1,767	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	1.66	2.25	2.49	2.54	2.59	2.74	2.79	3.18	3.52
1996	2,243	0.00	0.04	0.09	0.49	0.80	1.52	2.05	2.27	2.36	2.41	2.54	2.54	2.94	3.39	3.43
1997	2,491	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
1998	2,766	0.14	0.43	0.80	1.37	2.39	2.82	3.00	3.11	3.18	3.18	3.65	4.19	4.27	4.41	4.56
1999	2,873	0.17	0.49	0.90	1.88	2.33	2.47	2.58	2.71	2.71	3.24	3.90	3.97	4.11	4.28	4.32
2000	2,929	0.24	0.58	1.54	2.01	2.12	2.25	2.39	2.39	2.97	3.65	3.72	3.89	4.03	4.06	4.13
2001	3,003	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	3,111	0.42	0.77	0.90	1.03	1.09	1.09	1.64	2.28	2.31	2.44	2.60	2.70	2.73	2.93	3.02
2003	3,025	0.10	0.20	0.30	0.33	0.33	0.86	1.59	1.62	1.72	1.79	1.88	1.92	2.15	2.25	
2004	3,140	0.03	0.10	0.13	0.13	0.64	1.27	1.34	1.43	1.53	1.62	1.62	1.85	1.94		
2005	3,248	0.03	0.06	0.06	0.62	1.20	1.29	1.39	1.48	1.57	1.57	1.79	1.88			
2006	3,270	0.00	0.00	0.49	0.92	1.01	1.10	1.16	1.25	1.25	1.44	1.50				
2007	3,344	0.00	0.48	0.93	1.11	1.20	1.29	1.35	1.35	1.50	1.56					
2008	3,321	0.42	0.81	0.96	1.08	1.17	1.23	1.23	1.39	1.48						
2009	3,355	0.33	0.45	0.54	0.60	0.63	0.63	0.77	0.86							
2010	3,181	0.00	0.03	0.06	0.09	0.09	0.25	0.35								
2011	3,233	0.03	0.06	0.06	0.06	0.09	0.22									
2012	3,243	0.00	0.00	0.00	0.03	0.19										
2013	3,252	0.00	0.00	0.00	0.12											
2014	3,346	0.00	0.00	0.12												
2015	3,498	0.00	0.03													
2016	3,515	0.00														
Summary statistics																
Marginal average		0.10	0.17	0.20	0.25	0.25	0.26	0.24	0.23	0.22	0.22	0.22	0.19	0.18	0.18	0.19
Cumulative average		0.10	0.27	0.46	0.71	0.96	1.21	1.45	1.67	1.89	2.11	2.33	2.51	2.69	2.86	3.05
Standard deviation		0.12	0.27	0.41	0.53	0.63	0.68	0.71	0.73	0.79	0.86	0.89	0.87	0.80	0.71	0.61

Table 31

Static Pool Cumulative Global Corporate Default Rates Among All Investment-Grade Ratings (1981 - 2016) (%) (cont.)

Number of issuers	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Median	0.04	0.17	0.38	0.68	1.03	1.28	1.61	2.07	2.29	2.54	2.60	2.74	3.04	3.39	3.72
Minimum	0.00	0.00	0.00	0.03	0.09	0.22	0.31	0.56	0.80	1.36	1.50	1.85	1.94	2.25	2.47
Maximum	0.42	1.23	1.67	2.01	2.39	2.82	3.00	3.11	3.60	4.12	4.40	4.67	4.67	4.86	4.86

Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 32

Static Pool Cumulative Global Corporate Default Rates Among All Speculative-Grade Ratings (1981 - 2016) (%)

	Number of 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
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	1,751	6.23	15.25	22.10	25.81	27.53	28.50	29.24	29.81	31.18	33.75	34.09	34.27	34.44	34.78	34.84
2001	1,753	9.87	17.86	22.42	24.07	25.21	25.96	26.53	27.90	30.63	31.09	31.26	31.43	31.83	31.95	32.29
2002	1,675	9.49	14.63	16.66	17.73	18.63	19.22	20.90	24.24	24.78	25.01	25.25	25.79	25.91	26.27	26.87
2003	1,759	5.06	7.05	8.24	9.27	9.84	11.60	15.29	15.97	16.26	16.88	17.51	17.68	18.02	18.59	
2004	1,879	2.02	3.35	4.36	5.00	6.92	11.18	11.97	12.40	13.04	13.62	13.84	14.21	14.80		
2005	2,061	1.50	2.52	3.40	5.63	10.63	11.74	12.37	13.10	13.73	14.07	14.65	15.28			
2006	2,195	1.18	2.19	5.06	11.16	12.57	13.49	14.62	15.40	15.76	16.45	17.31				
2007	2,307	0.91	4.29	11.62	13.48	14.48	15.82	16.78	17.21	18.12	19.07					
2008	2,412	3.69	12.15	14.51	15.42	17.04	17.91	18.53	19.57	20.52						

Table 32

Static Pool Cumulative Global Corporate Default Rates Among All Speculative-Grade Ratings (1981 - 2016) (%) (cont.)

	Number of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2009	2,265	9.89	12.58	13.64	15.41	16.38	17.09	18.19	19.38							
2010	2,131	3.00	4.69	6.76	7.88	8.87	10.04	11.73								
2011	2,400	1.83	4.46	6.08	7.21	9.00	11.00									
2012	2,564	2.57	4.68	5.81	7.80	10.10										
2013	2,792	2.29	3.58	6.12	8.95											
2014	3,143	1.43	4.07	7.22												
2015	3,414	2.75	6.59													
2016	3,413	4.19														
Summary statistics																
Marginal average		3.83	3.79	3.41	2.87	2.41	2.03	1.74	1.47	1.32	1.21	1.02	0.85	0.77	0.71	0.71
Cumulative average		3.83	7.48	10.63	13.20	15.29	17.01	18.45	19.65	20.71	21.67	22.47	23.13	23.73	24.27	24.80
Standard deviation		2.72	4.48	5.56	6.11	6.31	6.11	5.84	5.65	5.70	5.76	5.79	5.73	5.34	4.53	3.82
Median		3.40	6.76	9.72	13.48	16.71	17.91	20.02	22.15	24.12	25.71	27.21	28.78	29.99	30.00	30.77
Minimum		0.62	2.19	3.40	5.00	6.92	10.04	11.73	12.40	13.04	13.62	13.84	14.21	14.80	18.59	22.50
Maximum		11.05	18.12	22.42	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: S&P Global Fixed Income Research and S&P CreditPro®.

Table 33

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%)

From/to	--One-year transition rates (%)--								
	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	87.05	9.03	0.53	0.05	0.08	0.03	0.05	0.00	3.17
	(7.14)	(7.16)	(0.83)	(0.25)	(0.25)	(0.17)	(0.35)	(0.00)	(2.42)
AA	0.52	86.82	8.00	0.51	0.05	0.07	0.02	0.02	3.99
	(0.52)	(5.25)	(4.21)	(0.69)	(0.20)	(0.21)	(0.07)	(0.08)	(1.89)
A	0.03	1.77	87.79	5.33	0.32	0.13	0.02	0.06	4.55
	(0.09)	(1.02)	(3.53)	(2.11)	(0.39)	(0.27)	(0.07)	(0.11)	(1.77)
BBB	0.01	0.10	3.51	85.56	3.79	0.51	0.12	0.18	6.23
	(0.04)	(0.16)	(1.65)	(3.73)	(1.52)	(0.70)	(0.22)	(0.26)	(1.59)
BB	0.01	0.03	0.12	4.97	76.98	6.92	0.61	0.72	9.63
	(0.06)	(0.09)	(0.26)	(1.89)	(4.41)	(3.12)	(0.76)	(0.85)	(2.38)
B	0.00	0.03	0.09	0.19	5.15	74.26	4.46	3.76	12.06
	(0.00)	(0.09)	(0.21)	(0.22)	(2.04)	(4.22)	(2.19)	(3.25)	(2.19)
CCC/C	0.00	0.00	0.13	0.19	0.63	12.91	43.97	26.78	15.39

Table 33

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%) (cont.)									
--One-year transition rates (%)--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.00)	(0.00)	(0.45)	(0.69)	(0.97)	(8.02)	(9.03)	(11.48)	(5.43)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 34

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%)									
--Two-year transition rates (%)--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	75.74	16.08	1.44	0.11	0.19	0.05	0.11	0.03	6.26
	(10.05)	(10.48)	(1.47)	(0.31)	(0.39)	(0.23)	(0.41)	(0.17)	(4.27)
AA	0.91	75.47	14.17	1.31	0.19	0.15	0.02	0.06	7.73
	(0.67)	(8.13)	(6.01)	(1.09)	(0.34)	(0.29)	(0.07)	(0.12)	(3.03)
A	0.04	3.19	77.22	9.24	0.81	0.29	0.05	0.15	9.02
	(0.08)	(1.63)	(5.34)	(2.78)	(0.78)	(0.44)	(0.11)	(0.20)	(2.78)
BBB	0.02	0.19	6.43	73.67	6.01	1.13	0.22	0.52	11.82
	(0.08)	(0.24)	(2.57)	(5.78)	(1.93)	(1.13)	(0.32)	(0.66)	(2.56)
BB	0.01	0.05	0.31	8.79	59.41	10.31	1.10	2.25	17.76
	(0.06)	(0.10)	(0.52)	(2.82)	(6.17)	(2.68)	(0.93)	(2.24)	(3.39)
B	0.00	0.04	0.16	0.46	8.68	55.13	5.11	8.56	21.86
	(0.00)	(0.12)	(0.31)	(0.44)	(3.07)	(5.33)	(2.02)	(5.95)	(3.69)
CCC/C	0.00	0.00	0.17	0.54	1.08	16.61	22.03	35.53	24.03
	(0.00)	(0.00)	(0.51)	(1.25)	(1.20)	(7.91)	(7.71)	(12.90)	(7.68)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 35

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%)									
--Three-year transition rates (%)--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	65.51	22.03	2.36	0.32	0.19	0.08	0.11	0.13	9.27
	(11.52)	(12.18)	(1.72)	(0.76)	(0.45)	(0.30)	(0.42)	(0.37)	(5.25)
AA	1.21	65.83	18.69	2.11	0.36	0.23	0.03	0.13	11.42
	(0.81)	(9.29)	(6.18)	(1.38)	(0.51)	(0.45)	(0.08)	(0.19)	(4.12)
A	0.06	4.15	68.49	11.83	1.34	0.46	0.10	0.26	13.31
	(0.10)	(2.07)	(6.21)	(2.74)	(0.98)	(0.63)	(0.14)	(0.28)	(3.54)
BBB	0.02	0.29	8.54	64.33	7.08	1.69	0.30	0.91	16.83
	(0.06)	(0.40)	(3.07)	(6.94)	(2.02)	(1.33)	(0.38)	(0.96)	(3.36)
BB	0.01	0.06	0.54	11.22	46.65	11.61	1.28	4.07	24.55
	(0.06)	(0.14)	(0.71)	(3.31)	(7.10)	(2.67)	(0.94)	(3.52)	(4.19)
B	0.00	0.03	0.23	0.84	10.48	41.37	4.66	12.78	29.62
	(0.05)	(0.12)	(0.44)	(0.78)	(3.20)	(5.77)	(1.73)	(7.63)	(4.78)

Table 35

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%) (cont.)									
--Three-year transition rates (%)--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
CCC/C	0.00	0.00	0.14	0.61	1.65	16.62	10.90	40.68	29.39
	(0.00)	(0.00)	(0.53)	(1.27)	(1.75)	(6.98)	(6.14)	(12.82)	(9.01)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 36

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%)									
--Five-year transition rates (%)--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	49.58	28.37	4.86	0.81	0.24	0.16	0.08	0.35	15.53
	(11.91)	(13.14)	(2.67)	(1.54)	(0.47)	(0.41)	(0.28)	(0.60)	(6.45)
AA	1.49	50.29	24.87	3.71	0.59	0.39	0.04	0.34	18.26
	(0.93)	(7.74)	(4.69)	(1.65)	(0.63)	(0.59)	(0.10)	(0.38)	(4.55)
A	0.08	5.22	54.95	15.13	2.15	0.71	0.16	0.57	21.04
	(0.10)	(2.31)	(6.65)	(2.21)	(1.11)	(0.88)	(0.18)	(0.42)	(4.05)
BBB	0.03	0.47	10.51	51.02	7.68	2.29	0.40	1.93	25.68
	(0.07)	(0.54)	(3.25)	(7.46)	(1.74)	(1.46)	(0.40)	(1.46)	(4.32)
BB	0.01	0.08	1.06	12.72	30.83	11.08	1.32	7.84	35.06
	(0.06)	(0.18)	(0.99)	(3.26)	(6.80)	(2.19)	(0.91)	(4.84)	(4.51)
B	0.01	0.03	0.28	1.63	10.55	24.83	2.99	19.25	40.42
	(0.11)	(0.09)	(0.58)	(1.22)	(2.73)	(5.50)	(1.02)	(8.87)	(5.51)
CCC/C	0.00	0.00	0.12	0.74	2.98	12.18	2.53	46.96	34.49
	(0.00)	(0.00)	(0.51)	(1.85)	(2.08)	(4.73)	(3.78)	(12.36)	(9.21)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 37

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%)									
--Seven-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	38.31	31.58	6.99	1.50	0.30	0.19	0.11	0.53	20.49
	(10.87)	(12.69)	(2.88)	(1.89)	(0.54)	(0.43)	(0.31)	(0.75)	(6.48)
AA	1.55	39.26	28.08	4.91	0.79	0.40	0.03	0.57	24.42
	(0.90)	(4.78)	(3.70)	(1.56)	(0.59)	(0.51)	(0.08)	(0.53)	(4.35)
A	0.08	5.46	45.54	16.73	2.71	0.86	0.15	0.98	27.50
	(0.12)	(1.84)	(5.99)	(1.48)	(1.11)	(0.93)	(0.18)	(0.51)	(3.80)
BBB	0.03	0.61	10.93	42.12	7.40	2.47	0.39	3.00	33.03
	(0.11)	(0.60)	(2.90)	(6.70)	(0.89)	(1.15)	(0.33)	(1.66)	(4.09)
BB	0.00	0.09	1.43	12.50	21.96	9.75	1.06	11.17	42.04
	(0.00)	(0.18)	(1.09)	(3.27)	(5.83)	(2.24)	(0.68)	(5.21)	(3.80)
B	0.01	0.02	0.38	2.10	8.92	15.71	1.75	24.15	46.96

Table 37

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%) (cont.)									
--Seven-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.08)	(0.09)	(0.61)	(1.52)	(1.97)	(4.40)	(0.61)	(8.17)	(5.19)
CCC/C	0.00	0.00	0.23	0.97	3.51	7.95	1.48	49.51	36.34
	(0.00)	(0.00)	(0.61)	(2.17)	(2.00)	(4.07)	(2.08)	(12.04)	(9.39)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 38

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%)									
--10-year transition rates (%)--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	26.01	32.25	9.82	2.87	0.18	0.21	0.06	0.74	27.87
	(8.42)	(11.54)	(2.70)	(2.24)	(0.34)	(0.48)	(0.23)	(0.77)	(6.46)
AA	1.32	28.24	29.36	6.82	1.05	0.44	0.03	0.83	31.90
	(0.71)	(3.82)	(3.68)	(1.63)	(0.67)	(0.36)	(0.08)	(0.57)	(3.72)
A	0.11	5.35	35.26	17.61	3.00	0.99	0.14	1.61	35.92
	(0.16)	(1.55)	(4.41)	(2.11)	(0.57)	(0.67)	(0.18)	(0.74)	(4.03)
BBB	0.02	0.74	10.85	32.58	6.70	2.46	0.33	4.56	41.77
	(0.09)	(0.67)	(3.14)	(5.44)	(1.27)	(1.03)	(0.23)	(1.98)	(3.26)
BB	0.02	0.07	1.79	11.24	14.64	7.75	0.67	15.39	48.43
	(0.07)	(0.14)	(1.11)	(3.00)	(4.30)	(2.35)	(0.42)	(5.61)	(3.16)
B	0.00	0.04	0.45	2.57	6.87	8.67	0.90	28.71	51.80
	(0.00)	(0.07)	(0.63)	(1.81)	(1.77)	(3.00)	(0.57)	(8.55)	(5.07)
CCC/C	0.00	0.00	0.18	0.84	3.50	4.53	0.36	50.57	40.01
	(0.00)	(0.00)	(0.61)	(0.97)	(2.46)	(3.14)	(0.68)	(11.62)	(10.03)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 39

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%)									
--15-year transition rates (%)--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	13.30	29.98	14.94	2.86	0.61	0.44	0.03	0.92	36.90
	(6.52)	(9.25)	(2.81)	(1.00)	(0.42)	(0.60)	(0.17)	(0.85)	(4.15)
AA	0.96	16.42	27.40	9.10	1.32	0.66	0.03	1.15	42.95
	(0.77)	(2.70)	(3.71)	(2.14)	(0.69)	(0.45)	(0.10)	(0.56)	(2.52)
A	0.12	3.99	24.47	17.49	3.21	1.21	0.16	2.71	46.64
	(0.20)	(1.51)	(2.65)	(1.86)	(0.84)	(0.48)	(0.15)	(0.74)	(3.81)
BBB	0.00	0.77	8.35	23.14	5.49	2.51	0.26	7.65	51.83
	(0.00)	(0.52)	(2.45)	(2.42)	(0.72)	(0.90)	(0.19)	(1.01)	(2.51)
BB	0.00	0.14	1.99	8.31	8.25	5.23	0.44	21.81	53.83
	(0.00)	(0.21)	(1.19)	(2.14)	(2.57)	(1.96)	(0.41)	(3.91)	(3.26)

Table 39

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%) (cont.)									
--15-year transition rates (%)--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
B	0.00	0.07	0.51	2.43	3.67	3.89	0.47	36.94	52.02
	(0.00)	(0.10)	(0.51)	(1.51)	(0.85)	(1.38)	(0.40)	(5.38)	(4.75)
CCC/C	0.00	0.00	0.59	1.07	2.63	1.07	0.20	59.41	35.02
	(0.00)	(0.00)	(1.60)	(1.24)	(2.79)	(1.05)	(0.86)	(8.12)	(8.24)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 40

Average Multi-Year Global Corporate Transition Matrices (1981 - 2016) (%)									
--20-year transition rates--									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	5.72	24.84	18.94	3.59	0.93	0.93	0.04	1.38	43.61
	(3.62)	(6.61)	(4.13)	(1.59)	(0.44)	(0.65)	(0.17)	(0.99)	(5.37)
AA	0.68	9.24	22.74	11.76	1.61	0.90	0.06	1.84	51.17
	(0.73)	(1.70)	(3.77)	(1.89)	(0.35)	(0.45)	(0.16)	(0.96)	(2.00)
A	0.11	2.81	18.00	15.43	3.17	1.51	0.19	3.91	54.87
	(0.21)	(0.90)	(2.05)	(1.06)	(0.71)	(0.69)	(0.17)	(1.36)	(1.94)
BBB	0.00	0.71	6.86	18.50	4.01	1.88	0.16	9.66	58.21
	(0.00)	(0.35)	(1.13)	(1.80)	(0.89)	(0.82)	(0.23)	(1.65)	(2.39)
BB	0.00	0.06	1.63	6.85	4.13	3.73	0.46	24.39	58.75
	(0.00)	(0.17)	(0.60)	(1.63)	(1.36)	(1.05)	(0.46)	(4.08)	(2.89)
B	0.00	0.02	0.44	2.63	2.77	2.10	0.28	36.21	55.54
	(0.00)	(0.07)	(0.27)	(1.07)	(0.59)	(0.98)	(0.28)	(3.93)	(4.12)
CCC/C	0.00	0.00	0.36	0.72	2.15	0.54	0.00	56.63	39.61
	(0.00)	(0.00)	(0.99)	(0.92)	(3.40)	(0.85)	(0.00)	(8.91)	(10.10)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 41

Average Multi-Year Global Corporate Transition Matrices, All Financials (1981 - 2016) (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
AAA	87.03	9.56	0.34	0.09	0.09	0.04	0.09	0.00	2.77
	(10.12)	(9.85)	(0.98)	(0.37)	(0.38)	(0.24)	(0.48)	(0.00)	(2.63)
AA	0.50	86.83	8.24	0.37	0.02	0.02	0.04	0.04	3.93
	(0.57)	(6.41)	(5.66)	(0.66)	(0.08)	(0.08)	(0.17)	(0.12)	(2.01)
A	0.02	2.36	88.12	4.05	0.22	0.07	0.01	0.10	5.06
	(0.13)	(1.72)	(3.94)	(2.59)	(0.49)	(0.16)	(0.05)	(0.19)	(2.16)
BBB	0.00	0.24	4.69	83.10	3.55	0.45	0.14	0.28	7.54
	(0.00)	(0.57)	(3.15)	(4.28)	(2.50)	(0.86)	(0.28)	(0.57)	(1.98)
BB	0.00	0.11	0.19	6.45	75.59	4.99	0.82	0.80	11.05

Table 41

Average Multi-Year Global Corporate Transition Matrices, All Financials (1981 - 2016) (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.00)	(0.30)	(0.76)	(4.32)	(7.42)	(3.10)	(1.76)	(1.33)	(5.20)
B	0.00	0.04	0.11	0.49	7.01	74.85	3.26	3.00	11.24
	(0.00)	(0.23)	(0.70)	(0.91)	(4.71)	(8.18)	(3.70)	(3.85)	(4.53)
CCC/C	0.00	0.00	0.00	0.00	1.42	15.64	45.97	17.06	19.91
	(0.00)	(0.00)	(0.00)	(0.00)	(4.22)	(11.59)	(19.17)	(16.61)	(12.41)
Three-year									
AAA	64.87	24.16	1.63	0.34	0.21	0.09	0.17	0.21	8.31
	(16.47)	(16.67)	(2.23)	(1.14)	(0.58)	(0.35)	(0.60)	(0.55)	(5.96)
AA	1.20	65.70	19.16	1.79	0.19	0.17	0.04	0.20	11.55
	(1.01)	(10.67)	(8.26)	(1.61)	(0.34)	(0.36)	(0.10)	(0.30)	(4.37)
A	0.04	5.65	69.37	8.22	1.14	0.25	0.12	0.43	14.77
	(0.15)	(3.37)	(7.05)	(2.62)	(1.30)	(0.48)	(0.22)	(0.54)	(5.04)
BBB	0.00	0.66	11.64	59.19	5.34	1.10	0.38	1.34	20.36
	(0.00)	(1.25)	(6.40)	(6.17)	(2.89)	(1.09)	(0.70)	(1.44)	(4.25)
BB	0.00	0.16	0.87	14.68	44.28	7.49	1.03	3.45	28.05
	(0.00)	(0.43)	(1.71)	(6.29)	(10.52)	(4.40)	(1.69)	(4.03)	(7.89)
B	0.00	0.00	0.41	1.96	14.32	44.98	3.51	8.03	26.78
	(0.00)	(0.00)	(1.08)	(2.74)	(7.17)	(11.76)	(3.12)	(7.92)	(7.33)
CCC/C	0.00	0.00	0.27	0.53	1.87	22.13	11.47	23.73	40.00
	(0.00)	(0.00)	(3.70)	(2.98)	(3.99)	(14.11)	(10.52)	(17.83)	(15.34)
10-year									
AAA	23.99	35.27	9.45	2.21	0.14	0.34	0.10	1.06	27.45
	(11.53)	(14.53)	(5.05)	(2.82)	(0.40)	(0.70)	(0.34)	(1.26)	(8.47)
AA	1.21	31.25	29.38	4.84	0.44	0.39	0.03	1.28	31.17
	(0.83)	(6.18)	(6.28)	(2.07)	(0.38)	(0.44)	(0.09)	(1.19)	(5.23)
A	0.11	8.42	37.29	8.81	2.27	0.45	0.18	2.10	40.38
	(0.38)	(2.72)	(4.82)	(2.84)	(1.10)	(0.49)	(0.25)	(0.96)	(6.07)
BBB	0.00	2.11	14.21	25.49	2.60	1.01	0.61	4.98	49.00
	(0.00)	(3.27)	(3.86)	(5.98)	(1.03)	(0.55)	(0.66)	(2.09)	(5.54)
BB	0.00	0.11	4.09	15.62	9.97	4.37	0.11	11.09	54.65
	(0.00)	(0.41)	(3.72)	(4.51)	(7.59)	(2.37)	(0.31)	(9.35)	(8.26)
B	0.00	0.00	1.82	6.30	10.13	10.22	0.64	15.05	55.84
	(0.00)	(0.00)	(2.82)	(6.13)	(4.51)	(6.40)	(1.83)	(12.09)	(11.24)
CCC/C	0.00	0.00	0.47	0.47	4.21	10.75	0.00	29.91	54.21
	(0.00)	(0.00)	(4.91)	(1.38)	(6.12)	(9.26)	(0.00)	(22.16)	(19.35)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 42

Average Multi-Year Global Corporate Transition Matrices, Insurance (1981 - 2016) (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
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	0.61	87.14	7.73	0.38	0.05	0.05	0.07	0.05	3.93
	(1.04)	(6.64)	(5.73)	(0.97)	(0.16)	(0.14)	(0.50)	(0.15)	(2.29)
A	0.01	2.61	89.33	3.33	0.22	0.09	0.01	0.13	4.27
	(0.07)	(2.45)	(4.67)	(2.62)	(0.55)	(0.26)	(0.07)	(0.28)	(2.00)
BBB	0.00	0.17	6.15	82.02	2.82	0.40	0.34	0.20	7.90
	(0.00)	(0.77)	(3.42)	(4.49)	(2.73)	(1.10)	(0.82)	(0.74)	(3.04)
BB	0.00	0.12	0.48	8.70	72.47	4.05	1.31	0.72	12.16
	(0.00)	(0.96)	(2.21)	(9.59)	(12.78)	(4.67)	(3.33)	(2.30)	(7.64)
B	0.00	0.21	0.42	1.06	8.49	71.97	2.76	2.55	12.53
	(0.00)	(1.28)	(2.96)	(3.23)	(8.36)	(13.38)	(4.67)	(5.55)	(7.54)
CCC/C	0.00	0.00	0.00	0.00	3.61	13.25	40.96	22.89	19.28
	(0.00)	(0.00)	(0.00)	(0.00)	(11.69)	(22.16)	(31.27)	(26.64)	(26.89)
Three-year									
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	1.44	67.04	17.38	1.82	0.20	0.25	0.08	0.30	11.50
	(2.09)	(10.78)	(7.17)	(2.17)	(0.52)	(0.60)	(0.20)	(0.45)	(4.11)
A	0.07	6.09	72.71	6.39	0.80	0.17	0.15	0.56	13.06
	(0.17)	(4.97)	(9.22)	(2.93)	(1.37)	(0.72)	(0.26)	(1.02)	(4.62)
BBB	0.00	0.49	14.85	58.28	4.19	0.91	0.49	1.14	19.64
	(0.00)	(1.71)	(5.93)	(7.32)	(3.32)	(1.06)	(1.25)	(1.97)	(4.10)
BB	0.00	0.14	2.03	17.48	41.60	4.74	1.63	2.85	29.54
	(0.00)	(1.03)	(4.58)	(12.37)	(15.51)	(4.82)	(4.52)	(5.27)	(11.27)
B	0.00	0.00	2.32	4.64	15.46	41.49	1.55	7.99	26.55
	(0.00)	(0.00)	(5.84)	(8.59)	(11.21)	(15.52)	(2.84)	(9.76)	(10.71)
CCC/C	0.00	0.00	1.25	2.50	5.00	18.75	15.00	31.25	26.25
	(0.00)	(0.00)	(11.34)	(11.12)	(10.62)	(22.88)	(18.80)	(28.83)	(26.25)
10-year									
AAA	24.39	38.87	10.29	1.75	0.15	0.53	0.15	1.68	22.18
	(13.50)	(13.58)	(6.52)	(2.74)	(0.50)	(1.21)	(0.57)	(1.84)	(10.66)
AA	1.52	32.82	27.99	3.98	0.64	0.61	0.07	1.92	30.45
	(1.80)	(6.43)	(5.70)	(2.37)	(0.76)	(0.79)	(0.17)	(1.07)	(5.61)
A	0.27	8.48	42.02	7.39	1.79	0.43	0.43	2.71	36.49
	(1.42)	(5.52)	(9.93)	(2.86)	(1.93)	(0.45)	(0.54)	(1.70)	(7.66)
BBB	0.00	2.21	17.27	30.11	2.58	0.59	0.30	4.65	42.29
	(0.00)	(5.02)	(7.64)	(5.84)	(2.68)	(0.52)	(0.81)	(5.04)	(4.59)
BB	0.00	0.50	7.25	17.00	11.75	3.00	0.00	16.75	43.75

Table 42

Average Multi-Year Global Corporate Transition Matrices, Insurance (1981 - 2016) (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.00)	(1.76)	(7.98)	(9.17)	(8.58)	(4.13)	(0.00)	(15.77)	(13.96)
B	0.00	0.00	7.22	13.92	9.79	5.67	1.03	17.53	44.85
	(0.00)	(0.00)	(11.06)	(18.33)	(10.62)	(7.99)	(5.49)	(13.73)	(18.18)
CCC/C	0.00	0.00	2.27	0.00	0.00	0.00	0.00	54.55	43.18
	(0.00)	(0.00)	(15.34)	(0.00)	(0.00)	(0.00)	(0.00)	(33.18)	(32.77)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 43

Average Multi-Year Global Corporate Transition Matrices, Financial Institutions (1981 - 2016) (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
AAA	86.04	8.70	0.43	0.21	0.11	0.00	0.00	0.00	4.51
	(13.49)	(12.97)	(1.31)	(0.95)	(0.80)	(0.00)	(0.00)	(0.00)	(4.53)
AA	0.39	86.52	8.76	0.36	0.00	0.00	0.00	0.02	3.94
	(0.65)	(7.73)	(7.20)	(0.74)	(0.00)	(0.00)	(0.00)	(0.10)	(2.38)
A	0.02	2.15	87.13	4.63	0.22	0.06	0.01	0.07	5.70
	(0.19)	(2.03)	(5.41)	(3.82)	(0.71)	(0.16)	(0.07)	(0.24)	(3.04)
BBB	0.00	0.28	3.98	83.62	3.91	0.48	0.05	0.31	7.36
	(0.00)	(0.73)	(3.69)	(5.73)	(3.32)	(1.13)	(0.22)	(0.76)	(2.37)
BB	0.00	0.10	0.10	5.81	76.49	5.26	0.68	0.82	10.73
	(0.00)	(0.33)	(0.72)	(4.06)	(7.69)	(4.07)	(1.68)	(1.47)	(6.24)
B	0.00	0.00	0.05	0.36	6.69	75.47	3.37	3.10	10.97
	(0.00)	(0.00)	(0.58)	(0.97)	(5.06)	(8.62)	(4.44)	(4.70)	(4.66)
CCC/C	0.00	0.00	0.00	0.00	0.88	16.22	47.20	15.63	20.06
	(0.00)	(0.00)	(0.00)	(0.00)	(3.93)	(11.94)	(19.82)	(15.58)	(12.28)
Three-year									
AAA	63.67	21.15	1.30	0.87	0.33	0.00	0.00	0.00	12.69
	(10.94)	(10.87)	(0.91)	(0.31)	(0.25)	(0.27)	(0.55)	(0.00)	(0.00)
AA	0.95	64.35	20.98	1.77	0.18	0.08	0.00	0.10	11.59
	(0.57)	(6.74)	(6.38)	(0.66)	(0.09)	(0.09)	(0.11)	(0.14)	(0.00)
A	0.03	5.30	66.78	9.64	1.40	0.32	0.09	0.33	16.10
	(0.05)	(1.99)	(2.91)	(2.81)	(0.33)	(0.17)	(0.04)	(0.23)	(0.00)
BBB	0.00	0.74	10.04	59.64	5.92	1.19	0.32	1.44	20.71
	(0.00)	(0.53)	(3.76)	(3.74)	(2.41)	(0.95)	(0.37)	(0.45)	(0.00)
BB	0.00	0.16	0.52	13.84	45.08	8.31	0.85	3.63	27.60
	(0.00)	(0.45)	(1.14)	(5.51)	(7.06)	(3.44)	(1.86)	(1.79)	(0.00)
B	0.00	0.00	0.00	1.39	14.08	45.73	3.94	8.04	26.83
	(0.00)	(0.38)	(0.97)	(1.53)	(5.65)	(7.36)	(3.65)	(3.76)	(0.00)
CCC/C	0.00	0.00	0.00	0.00	1.02	23.05	10.51	21.69	43.73
	(0.00)	(0.00)	(0.00)	(0.00)	(6.33)	(18.08)	(18.27)	(13.93)	(0.00)

Table 43

Average Multi-Year Global Corporate Transition Matrices, Financial Institutions (1981 - 2016) (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
10-year									
AAA	23.32	29.15	8.03	2.98	0.13	0.00	0.00	0.00	36.40
	(14.38)	(17.88)	(5.81)	(5.07)	(0.62)	(0.00)	(0.00)	(0.00)	(10.78)
AA	0.90	29.66	30.80	5.72	0.24	0.17	0.00	0.62	31.90
	(0.87)	(9.24)	(8.46)	(3.56)	(0.54)	(0.32)	(0.00)	(1.92)	(6.39)
A	0.00	8.38	34.26	9.72	2.57	0.47	0.02	1.71	42.87
	(0.00)	(3.28)	(4.74)	(4.86)	(2.36)	(0.64)	(0.08)	(1.32)	(6.51)
BBB	0.00	2.06	12.88	23.47	2.61	1.19	0.74	5.12	51.93
	(0.00)	(3.07)	(3.58)	(6.76)	(1.09)	(0.80)	(0.99)	(2.15)	(6.67)
BB	0.00	0.00	3.17	15.22	9.45	4.76	0.14	9.45	57.79
	(0.00)	(0.00)	(3.15)	(4.88)	(9.15)	(3.00)	(0.37)	(8.60)	(11.10)
B	0.00	0.00	0.67	4.66	10.20	11.20	0.55	14.52	58.20
	(0.00)	(0.00)	(1.74)	(4.44)	(5.27)	(7.58)	(1.03)	(15.81)	(12.38)
CCC/C	0.00	0.00	0.00	0.59	5.29	13.53	0.00	23.53	57.06
	(0.00)	(0.00)	(0.00)	(1.81)	(7.97)	(11.14)	(0.00)	(19.86)	(17.70)

Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

Table 44

Average Multi-Year Global Corporate Transition Matrices, Nonfinancials (1981 - 2016) (%)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
AAA	87.10	8.15	0.85	0.00	0.07	0.00	0.00	0.00	3.83
	(8.39)	(7.49)	(1.68)	(0.00)	(0.34)	(0.00)	(0.00)	(0.00)	(4.20)
AA	0.54	86.81	7.69	0.70	0.09	0.12	0.00	0.00	4.05
	(0.70)	(5.64)	(3.72)	(1.02)	(0.31)	(0.36)	(0.00)	(0.00)	(2.67)
A	0.04	1.29	87.52	6.38	0.39	0.17	0.02	0.03	4.14
	(0.11)	(1.24)	(4.12)	(2.48)	(0.50)	(0.39)	(0.09)	(0.08)	(2.26)
BBB	0.01	0.05	3.08	86.45	3.88	0.52	0.10	0.15	5.75
	(0.05)	(0.13)	(1.78)	(4.45)	(1.74)	(0.75)	(0.24)	(0.28)	(1.92)
BB	0.02	0.02	0.11	4.67	77.26	7.30	0.57	0.70	9.35
	(0.07)	(0.09)	(0.26)	(1.85)	(4.69)	(3.48)	(0.66)	(0.90)	(2.40)
B	0.00	0.02	0.09	0.16	4.95	74.20	4.59	3.85	12.15
	(0.00)	(0.09)	(0.22)	(0.22)	(2.02)	(4.13)	(2.37)	(3.37)	(2.29)
CCC/C	0.00	0.00	0.15	0.22	0.51	12.49	43.66	28.28	14.69
	(0.00)	(0.00)	(0.51)	(0.77)	(0.90)	(8.45)	(9.24)	(12.04)	(5.54)
Three-year									
AAA	66.59	18.43	3.60	0.29	0.14	0.07	0.00	0.00	10.87
	(11.31)	(9.90)	(3.17)	(1.31)	(0.48)	(0.32)	(0.00)	(0.00)	(7.39)
AA	1.23	66.00	18.09	2.51	0.57	0.30	0.02	0.03	11.25
	(0.98)	(10.16)	(5.75)	(2.00)	(0.79)	(0.59)	(0.08)	(0.11)	(5.10)

Table 44

Average Multi-Year Global Corporate Transition Matrices, Nonfinancials (1981 - 2016) (%) (cont.)									
From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
A	0.07 (0.11)	2.99 (2.54)	67.80 (6.63)	14.63 (3.80)	1.50 (1.10)	0.62 (0.83)	0.08 (0.16)	0.12 (0.19)	12.18 (3.86)
BBB	0.03 (0.08)	0.17 (0.29)	7.44 (3.42)	66.15 (8.39)	7.70 (2.26)	1.91 (1.54)	0.27 (0.36)	0.76 (1.08)	15.58 (3.98)
BB	0.01 (0.07)	0.04 (0.15)	0.48 (0.69)	10.57 (3.41)	47.11 (7.42)	12.39 (3.10)	1.33 (0.93)	4.19 (3.70)	23.89 (4.43)
B	0.00 (0.06)	0.03 (0.13)	0.21 (0.46)	0.72 (0.74)	10.08 (3.08)	41.00 (5.48)	4.78 (1.87)	13.26 (7.82)	29.91 (5.08)
CCC/C	0.00 (0.00)	0.00 (0.00)	0.12 (0.42)	0.62 (1.25)	1.62 (1.93)	15.76 (6.93)	10.81 (6.77)	43.33 (13.56)	27.73 (9.02)
10-year									
AAA	29.24 (9.69)	27.39 (8.88)	10.42 (3.98)	3.94 (3.44)	0.23 (0.61)	0.00 (0.00)	0.00 (0.00)	0.23 (0.55)	28.55 (8.81)
AA	1.44 (0.94)	25.06 (7.83)	29.35 (3.92)	8.92 (3.90)	1.69 (1.10)	0.49 (0.53)	0.02 (0.10)	0.36 (0.53)	32.67 (4.45)
A	0.11 (0.15)	3.49 (2.50)	34.04 (4.49)	22.92 (4.30)	3.45 (1.07)	1.32 (0.82)	0.12 (0.19)	1.32 (0.91)	33.22 (2.83)
BBB	0.03 (0.12)	0.33 (0.34)	9.85 (4.00)	34.68 (6.11)	7.91 (1.41)	2.89 (1.33)	0.25 (0.23)	4.44 (2.18)	39.62 (3.44)
BB	0.02 (0.08)	0.06 (0.16)	1.42 (1.07)	10.56 (3.55)	15.37 (4.16)	8.28 (2.69)	0.76 (0.45)	16.07 (5.74)	47.46 (3.61)
B	0.00 (0.00)	0.04 (0.08)	0.33 (0.66)	2.25 (1.67)	6.59 (1.74)	8.53 (2.83)	0.92 (0.56)	29.89 (8.44)	51.45 (5.12)
CCC/C	0.00 (0.00)	0.00 (0.00)	0.14 (0.42)	0.90 (1.10)	3.40 (2.58)	3.60 (2.94)	0.42 (0.79)	53.64 (11.15)	37.91 (9.68)

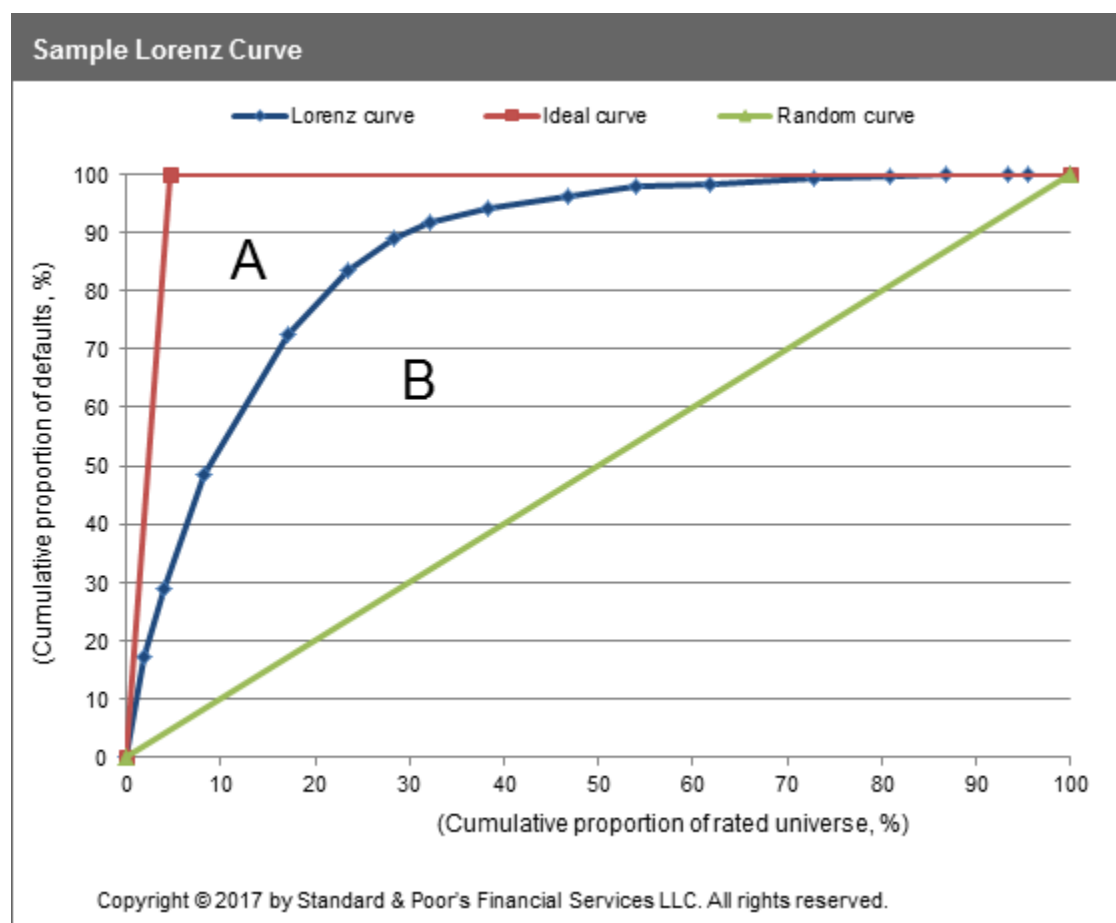
Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Fixed Income Research and S&P CreditPro®.

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 timeframe 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 0. 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 1 (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 2016, 162 companies (including 14 confidential issuers) defaulted on US\$239.8 billion of debt. Also, two sovereigns selectively defaulted. This appendix provides summaries of the events leading up to each default and, in some cases, events following the default. We also include the defaulting instruments for each company that S&P Global Ratings rates.

Aretec Group

- US\$25 million revolving bank loan due Dec. 31, 2017
- US\$550 million first-lien term bank loan due Dec. 31, 2019

- US\$150 million second-lien term bank loan due April 29
- US\$120 million 5.00% notes due Nov. 1, 2021

On Jan. 6, 2016, S&P Global Ratings lowered its long-term corporate credit rating on U.S.-based RCS Capital Corp. to 'D' from 'CCC'. The downgrade followed the issuer's disclosure that it entered into forbearance agreements with the majority of first- and second-lien lenders for its existing convertible notes. The issuer also had intended to file for a voluntary petition for Chapter 11 bankruptcy on account of missed payment of principal and interest. Later, in May, RCS Capital Corp. emerged from bankruptcy as Aretec Group Inc.

Table 45

Aretec Group/Issuer Credit Rating History

Date	To
06-Jan-2016	D/--/--
12-Nov-2015	CCC/Negative/--
12-Aug-2015	B/Negative/--
11-Dec-2014	B/Stable/--
02-Oct-2014	B+/Negative/--
03-Mar-2014	B+/Stable/--

Ultrapetrol (Bahamas) Ltd.

- US\$225 million 8.875% first preferred ship mortgage notes due June 15, 2021
- US\$25 million 8.875% first-lien notes due June 15, 2021
- US\$80 million 7.25% senior notes due Jan. 15, 2017

On Jan. 18, 2016, S&P Global Ratings lowered its corporate credit rating on South American shipping company Ultrapetrol (Bahamas) Ltd. to 'D' from 'CC' following the issuer's missed principal and interest payment on its loans, as well as the changed terms and conditions of the original loan contracts, which is further viewed as a general default on its obligations. The 30-day grace period for the missed interest payment expired on Jan. 15, 2016.

On Aug. 5, 2016, S&P Global Ratings withdrew its corporate credit and issue-level ratings on the issuer, per the company's request.

Table 46

Ultrapetrol (Bahamas) Ltd./Issuer Credit Rating History

Date	To
05-Aug-2016	NR/--/--
18-Jan-2016	D/--/--
15-Dec-2015	CC/Watch Neg/--
14-Sep-2015	B-/Negative/--
11-May-2015	B/Negative/--
16-May-2014	B/Stable/--
13-May-2013	B-/Positive/--
03-Dec-2012	B-/Watch Dev/--
01-Oct-2010	B-/Stable/--
28-Aug-2009	B/Negative/--

Table 46

Ultrapetrol (Bahamas) Ltd./Issuer Credit Rating History (cont.)	
Date	To
18-Feb-2009	B/Stable/--
31-Jan-2008	B/Positive/--
21-Dec-2006	B/Stable/--
27-May-2005	B/Negative/--
28-Jun-2001	BB-/Negative/--
19-Mar-2001	BB-/Watch Neg/--
17-Dec-1998	BB-/Negative/--
11-Mar-1998	BB-/Stable/--

Horsehead Holding Corp.

- US\$205 million 10.50% senior secured notes due June 1, 2017
- US\$40 million 9.00% senior unsecured notes due June 1, 2017
- US\$100 million 3.8% senior unsecured notes convertible due July 1, 2017
- US\$10 million 10.5% first-lien notes due June 1, 2017
- US\$20 million 10.5% first-lien notes due June 1, 2017

On Jan. 20, 2016, S&P Global Ratings lowered its corporate credit rating on Pittsburgh-based zinc producer Horsehead Holding Corp. to 'SD' (selective default) from 'CCC'. The downgrade followed Horsehead's election for a 30-day grace period under its indenture agreements with holders for its 3.80% convertible senior notes due 2017. The issuer has also entered into temporary forbearance agreements with its lenders related to certain events of default under its Macquarie and Zochem credit facilities while it explored solutions for its liquidity and capital structure issues.

On Feb. 2, 2016, S&P Global Ratings revised its corporate credit rating on Horsehead to 'D' from 'SD'. The rating action followed the issuer's announcement that it had filed for voluntary Chapter 11.

On March 9, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer. Later, on Sept. 30, the issuer executed the reorganization plan and emerged from Chapter 11. Under the plan filed on July 11, holders of \$205 million of 10.5% secured notes due 2017 would receive 93.29% of the common equity in the reorganized debtor, subject to dilution, while the holders of \$40 million of 9% unsecured notes due 2017 will receive 6.71% of the common equity, subject to dilution. Also, holders of \$100 million of 3.8% convertible notes due 2017 will receive a pro rata share of warrants to buy up to 6% of the common equity.

Table 47

Horsehead Holding Corp./Issuer Credit Rating History	
Date	To
09-Mar-2016	NR/--/--
02-Feb-2016	D/--/--
20-Jan-2016	SD/NM/--
24-Dec-2015	CCC/Negative/--
09-Jun-2015	B-/Stable/--
03-Nov-2014	B-/Negative/--

Table 47

Horsehead Holding Corp./Issuer Credit Rating History (cont.)

Date	To
01-Aug-2012	B-/Stable/--

Slap Shot Holdings Corp. and Subsidiaries (d/b/a Sports Authority)

- US\$300 million term bank loan due Nov. 11, 2017

On Jan. 20, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Englewood-based sporting goods retailer Slap Shot Holdings Corp. and Subsidiaries (d/b/a Sports Authority) to 'D' from 'B-'. The downgrade followed Slap's missed scheduled interest payment on its senior subordinated notes, which also triggered a cross-default provision on its term loan facility.

On Feb. 29, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Table 48

Slap Shot Holdings Corp. And Subsidiaries (D/B/A Sports Authority)/Issuer Credit Rating History

Date	To
29-Feb-2016	NR/--/--
20-Jan-2016	D/--/--
29-May-2015	B-/Negative/--
29-May-2014	B-/Stable/--

Pacific Exploration and Production Corp.

- US\$750 million 5.625% notes due Jan. 19, 2025
- US\$450 million 8.75% senior notes due Nov. 10, 2016
- US\$1.3 billion 5.375% senior notes due Jan. 26, 2019
- US\$1.009 billion 7.25% notes due Dec. 12, 2021
- US\$1 billion 5.125% senior notes due March 28, 2023

On Jan. 20, 2016, S&P Global Ratings lowered its rating on Canada-based oil and gas producer Pacific Exploration and Production Corp. to 'D' from 'CC'. The downgrade reflected Pacific's failure to make the \$31.3 million interest payment on its 5.625% notes on Jan. 19, 2016, which is further viewed as a general default per our criteria. The payment default didn't occur as per the legal provisions because of the 30-day grace period. However, we consider this a default based on our belief that the issuer wouldn't be able to make the payments even after the grace period.

On Nov. 3, 2016, S&P Global Ratings raised its long-term corporate credit rating to 'B+' from 'D' based on the issuer's completion of its comprehensive financial restructuring, which reduced the issuer's debt by about \$5.1 billion.

Table 49

Pacific Exploration and Production Corp./Issuer Credit Rating History

Date	To
03-Nov-2016	B+/Stable/--
20-Jan-2016	D/--/--
15-Jan-2016	CC/Negative/--

Table 49

Pacific Exploration and Production Corp./Issuer Credit Rating History (cont.)	
Date	To
28-Dec-2015	CCC+/Watch Neg/--
14-Oct-2015	BB-/Stable/--
01-Apr-2015	BB/Negative/--
16-Jan-2015	BB+/Watch Neg/--
15-Mar-2013	BB+/Stable/--
13-Jul-2012	BB/Positive/--
05-Jul-2011	BB/Stable/--
03-Nov-2010	BB-/Stable/--
03-Nov-2009	B+/Positive/--

Verso Paper Holdings LLC

- US\$650 million 11.75% senior notes due Jan. 15, 2019
- US\$63 million 16.00% notes due Aug. 1, 2020
- 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
- US\$300 million 11.375% senior subordinated notes due Aug. 1, 2016
- US\$271.6 million 11.75% senior secured notes due Jan. 15, 2019
- US\$178 million 13.00% second priority senior notes due Aug. 1, 2020
- US\$50 million revolver bank loan due May 4, 2017
- US\$180.2 million 9.75% senior secured notes due Feb. 1, 2019
- US\$157.5 million 11.75% senior secured notes due Dec. 31, 2019

On Jan. 22, 2016, S&P Global Ratings lowered its ratings on Memphis-based paper manufacturer Verso Paper Holdings LLC to 'D' from 'CCC-'. The downgrade reflected Verso's election to not to make its interest payment, which is viewed as a default on an account of the issuer's weak liquidity position and heavy debt burden.

Furthermore, the issuer disclosed doubt about its ability to continue as a going concern and continued to explore certain alternatives to restructure its balance sheet.

On June 28, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

On July 21, 2016, S&P Global Ratings assigned a 'B+' corporate credit rating to Verso as the issuer emerged from protection under the U.S. Bankruptcy Code and significantly reduced its debt by executing its restructuring plan well.

Table 50

Verso Paper Holdings LLC/Issuer Credit Rating History	
Date	To
21-Jul-2016	B+/Stable/--
28-Jun-2016	NR/--/--
22-Jan-2016	D/--/--
17-Nov-2015	CCC-/Negative/--
29-Jun-2015	B-/Stable/--

Table 50**Verso Paper Holdings LLC/Issuer Credit Rating History (cont.)**

Date	To
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/--

Murray Energy Corp.

- US\$1.3 billion 11.25% senior secured notes due April 15, 2021
- US\$300 million B-1 bank loan due April 16, 2017
- US\$1.7 billion B-2 bank loan due April 16, 2020
- US\$400 million 9.50% second-lien notes due Dec. 5, 2020
- US\$1.02 billion first-lien term bank loan due Dec. 5, 2019
- US\$350 million term bank loan due May 24, 2019
- US\$350 million 8.625% second-lien notes due June 15, 2021
- US\$150 million 9.75% notes due Nov. 18, 2017
- US\$400 million second-lien term bank loan due Dec. 31, 2020

On Jan. 29, 2016, S&P Global Ratings lowered its corporate credit rating on Ohio-based coal producer Murray Energy Corp. to 'SD' from 'B'. The downgrade followed the issuer undertaking open-market debt repurchases of its senior secured term loans and second-lien notes, which were repurchased at substantially below the original principal amount. This transaction was further viewed as distressed, per our criteria.

Also, S&P Global Ratings lowered its issue-level ratings on the issuer's first-lien term notes to 'D' from 'B' as well as lowering its ratings on the second-lien notes to 'D' from 'CCC+'.

On April 27, 2016, S&P Global Ratings raised its corporate credit rating on the issuer to 'CCC+' from 'SD'. The rating action reflected our view of Murray's dependency on favorable business, financial, and economic conditions, which further helped the issuer to meet its financial commitments.

On Sept. 20, 2016, S&P Global Ratings raised its corporate credit rating on Murray to 'B' from 'CCC+' as a result of the issuer's renegotiation of its collective bargaining agreement with United Mine Workers of America, which provided Murray with significant cost benefits, which can be seen over the next five years.

In October 2016, the coal company announced plans to sell off nearly 6,000 acres of its Utica Shale natural-gas and oil reserves for \$63.6 million. Investors have received allocations of Murray Energy's \$175 million. The transaction was arranged by Goldman Sachs.

Table 51

Murray Energy Corp./Issuer Credit Rating History

Date	To
20-Sep-2016	B-/Stable/--
27-Apr-2016	CCC+/Negative/--
29-Jan-2016	SD/NM/--
18-Dec-2015	B/Watch Neg/--
07-Jan-2015	B+/Stable/--
13-Nov-2013	B/Stable/--
29-Oct-2013	B/Watch Neg/--
16-Oct-2009	B/Stable/--

Constellation Enterprises LLC

- US\$130 million 11.125% senior secured notes due Feb. 1, 2018

On May 18, 2016, S&P Global Ratings lowered its corporate credit rating on Delaware-based industrial manufacturer Constellation Enterprises LLC to 'D' from 'CCC-' following the issuer's announcement that it filed for the Chapter 11 petition of the U.S. Bankruptcy code.

On Feb. 2, 2016, S&P Global Ratings lowered its corporate credit rating on Constellation to 'SD' from 'CCC-'. The downgrade reflected the issuer's extension of the mandatory redemption date under its senior secured notes, which constitutes a default as per our criteria, considering that the payment date was extended beyond the original payment date.

On Feb. 3, 2016, S&P Global Ratings raised its corporate credit rating to 'CCC-' from 'SD'. The upgrade followed the company's extension of the mandatory redemption date under its senior secured notes to Feb. 1, 2018, from Feb. 1, 2016. The company also extended the maturity date of its unrated asset-based loan (ABL) revolving credit facility to July 28, 2016, from Jan. 28, 2016. In addition, the company obtained a \$30 million equity infusion and a \$13 million unrated delayed draw term loan that matures Jan. 28, 2018.

On Aug. 5, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Table 52

Constellation Enterprises LLC/Issuer Credit Rating History

Date	To
05-Aug-2016	NR/--/--
18-May-2016	D/--/--

Table 52**Constellation Enterprises LLC/Issuer Credit Rating History (cont.)**

Date	To
03-Feb-2016	CCC-/Developing/--
02-Feb-2016	SD/NM/--
05-Oct-2015	CCC-/Negative/--
14-Nov-2014	CCC+/Negative/--
24-Jul-2014	B-/Negative/--
31-Jan-2014	B/Negative/--
11-Mar-2011	B/Stable/--

SFX Entertainment Inc.

- US\$270 million 9.625% second-lien senior notes due Feb. 1, 2019
- US\$65 million 9.625% second-lien notes due Feb. 1, 2019
- US\$30 million revolving first-lien guaranteed senior secured bank due Feb. 7, 2017

On Feb. 2, 2016, S&P Global Ratings lowered its corporate credit rating on New York-based live entertainment company SFX Entertainment Inc. to 'D' from 'CC'. The rating action followed SFX's announcement that it filed voluntary petitions for restructuring under Chapter 11 of the U.S. Bankruptcy Code.

On Oct. 4, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

On Dec. 2, 2016, the issuer executed the reorganization plan and emerged from Chapter 11, according to the notice filed in the case.

Table 53**SFX Entertainment Inc./Issuer Credit Rating History**

Date	To
04-Oct-2016	NR/--/--
02-Feb-2016	D/--/--
20-Jan-2016	CC/Negative/--
27-Aug-2015	CCC/Negative/--
05-Mar-2014	B-/Negative/--

Sheridan Investment Partners I LLC

- US\$81.38 million first-lien bank term loan due Oct. 1, 2018
- US\$255 million revolver bank loan due May 31, 2019
- US\$900 million term loan B-2 loan due Oct. 1, 2019
- US\$100 million term loan B-1 bank loan due Oct. 1, 2018

On Feb. 2, 2016, S&P Global Ratings lowered its issuer credit rating on Texas-based Sheridan Investment Partners I LLC to 'SD' from 'CCC'. The downgrade reflected Sheridan Fund's below-par prepayment of its first-lien senior secured term loans and a default on its obligations, which is viewed as distressed, per our criteria.

On Feb. 8, 2016, S&P Global Ratings raised its corporate credit rating to 'CCC-' from 'SD' based on its expectation of

the issuer's further restructuring in the next six months.

On Dec. 13, 2016, S&P Global Ratings raised its corporate credit rating on Sheridan to 'CCC+' from 'CCC-'. The rating action reflected the issuer's efforts to reduce its debt by raising \$216 million of equity capital from existing limited partners, in order to regain compliance with its borrowing base.

Table 54

Sheridan Investment Partners I LLC/Issuer Credit Rating History

Date	To
13-Dec-2016	CCC+/Negative/--
08-Feb-2016	CCC-/Negative/--
02-Feb-2016	SD/NM/--
29-Dec-2015	CCC/Negative/--
23-Dec-2014	B+/Negative/--
04-Dec-2013	B+/Stable/--

Sheridan Investment Partners II L.P.

- US\$800 million term loan bank loan due Dec. 31, 2020
- US\$800 million term loan bank loan due Dec. 31, 2020
- US\$800 million term loan bank loan due Dec. 31, 2020
- US\$850 million revolver bank loan due Feb. 26, 2018

On Feb. 2, 2016, S&P Global Ratings lowered its issuer credit rating on Texas-based Sheridan Investment Partners II L.P. to 'SD' from 'CCC'. The downgrade reflected Sheridan Fund's below-par prepayment of its first-lien senior secured term loans, which is viewed as distressed, per our criteria, considering that it's a de facto restructuring and a default on the issuer's obligations.

On Feb. 8, 2016, S&P Global Ratings raised its corporate credit rating to 'CCC-' from 'SD' based on its expectation of the issuer's further restructuring in the next six months.

Table 55

Sheridan Investment Partners II LP/Issuer Credit Rating History

Date	To
08-Feb-2016	CCC-/Negative/--
02-Feb-2016	SD/NM/--
29-Dec-2015	CCC/Negative/--
23-Dec-2014	B+/Negative/--
04-Dec-2013	B+/Stable/--

Comstock Resources Inc.

- US\$400 million 7.75% senior unsecured notes due April 1, 2019
- US \$50 million revolving first-lien guaranteed senior secured bank due March 4, 2019
- US\$300 million 9.50% senior notes due June 15, 2020
- US\$700 million 10.00% notes due March 15, 2020

On Feb. 4, 2016, S&P Global Ratings lowered its corporate credit rating on Frisco, Texas-based oil and gas exploration

and production (E&P) Comstock Resources Inc. to 'SD' from 'B-'. The downgrade followed the issuer's announcement of an agreement with holders of \$40 million of its senior 7.75% secured notes due 2019 for 4.6 million shares. As a result of this, investors received less than what was promised to them, and this transaction was viewed as distressed, per our criteria.

On Sept. 20, 2016, S&P Global Ratings raised its corporate credit rating on Comstock to 'CCC+' from 'SD'. The rating action followed the completion of the issuer's debt restructuring plan and our assessment of the issuer's revised capital structure and credit profile.

Table 56

Comstock Resources Inc./Issuer Credit Rating History	
Date	To
20-Sep-2016	CCC+/Negative/--
04-Feb-2016	SD/NM/--
30-Apr-2015	B-/Stable/--
25-Feb-2015	B/Negative/--
08-Jun-2012	B/Stable/--
08-May-2012	B/Negative/--
07-Feb-2012	B+/Negative/--
07-Dec-2011	BB-/Negative/--
13-Feb-2004	BB-/Stable/--
10-Jun-2003	B+/Stable/--
19-Dec-2001	B+/Negative/--
23-Oct-2001	B+/Watch Neg/--
20-Apr-1999	B+/Stable/--
15-Jan-1999	B+/Negative/--
11-Jun-1998	B+/Stable/--

Noranda Aluminum Holding Corp.

- US\$485 million term bank loan due Feb. 28, 2019
- US\$175 million 11.00% senior unsecured notes due June 1, 2019

On Feb. 8, 2016, S&P Global Ratings lowered its corporate credit rating on Franklin-based aluminum producer Noranda Aluminum Holding Corp. to 'D' from 'CCC+'. The downgrade followed the issuer's announcement that it filed petitions for restructuring under Chapter 11 of the U.S. Bankruptcy Code.

On March 14, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Table 57

Noranda Aluminum Holding Corp./Issuer Credit Rating History	
Date	To
14-Mar-2016	NR/--/--
08-Feb-2016	D/--/--
13-Nov-2015	CCC+/Negative/--
17-Aug-2015	B-/Negative/--

Table 57

Noranda Aluminum Holding Corp./Issuer Credit Rating History (cont.)	
Date	To
13-Oct-2014	B-/Stable/--
22-May-2013	B/Negative/--
28-Sep-2012	B/Stable/--
30-Aug-2012	B+/Watch Neg/--
31-May-2011	B+/Stable/--
11-Jun-2010	B/Positive/--
27-Apr-2010	B-/Watch Pos/--
19-Mar-2010	B-/Positive/--
15-Jan-2010	CCC+/Watch Pos/--
15-Jul-2009	CCC+/Developing/--
06-Apr-2009	SD/NM/--
29-Jan-2009	CCC+/Watch Neg/--
12-Nov-2008	B/Watch Neg/--
05-Jun-2007	B/Stable/--
26-Apr-2007	B+/Stable/--

CB Intercommerz Ltd.

On Feb. 9, 2016, S&P Global Ratings lowered its long-term and short-term foreign- and local-currency counterparty credit ratings on Russia-based CB Intercommerz Ltd. to 'D/D' from 'R/R' and its Russia national-scale rating to 'D' from 'R'. The ratings were subsequently withdrawn.

The rating actions followed the Central Bank of Russia's (CBR's) revocation of Intercommerz's banking license on Feb. 8, 2016. We understand that, following the banking license withdrawal, the CBR will start the process of settling the bank's obligations to creditors in accordance with bankruptcy law.

Table 58

CB Intercommerz Ltd./Issuer Credit Rating History	
Date	To
09-Feb-2016	NR/--/--
09-Feb-2016	D/--/--
01-Feb-2016	R/NM/--
03-Jun-2014	B-/Negative/--
07-Mar-2012	B-/Stable/--

A.M. Castle & Co.

- US\$225 million 12.75% notes due Dec. 15, 2016
- US\$57 million 7.00% senior unsecured notes due Dec. 15, 2017

On Feb. 9, 2016, S&P Global Ratings lowered its corporate credit rating on Oak Brook-based A.M. Castle & Co. to 'SD' from 'CC'. The rating action reflected A.M. Castle's Feb. 3, 2016, announcement of the consummation of the exchange offer for its senior secured notes. According to the company, all the conditions to carry through the offer were satisfied,

and the settlement date was on Feb. 8, 2016.

On Feb. 19, 2016, S&P Global Ratings raised its corporate credit rating on A.M. Castle & Co. to 'CCC+' from 'SD'. We raised the corporate credit rating on A.M. Castle to 'CCC+' from 'SD' because the company completed its exchange offer on the senior secured notes due December 2016. We then withdrew all of our ratings on A.M. Castle at the company's request.

In March 2016, Prophet Equity agreed to acquire Total Plastics from its parent, A.M. Castle & Co., for about \$55 million. The issuer would further be using this amount received from the asset sale to pay down its debt for the February debt exchange agreement.

Table 59

A.M. Castle & Co./Issuer Credit Rating History

Date	To
19-Feb-2016	NR/--/--
19-Feb-2016	CCC+/Negative/--
09-Feb-2016	SD/NM/--
22-Jan-2016	CC/Negative/--
09-Feb-2015	CCC+/Negative/--
18-Aug-2014	B-/Negative/--
31-Oct-2013	B-/Stable/--
26-Jun-2013	B/Stable/--
05-Jan-2012	B+/Stable/--

Paragon Offshore PLC

- US\$500 million 6.75% senior notes due July 15, 2022
- US\$580 million 7.25% senior notes due Aug. 15, 2024
- US\$650 million term B bank loan due July 18, 2021
- US\$800 million revolving bank loan due June 17, 2019
- US\$169 million revolving first-lien guaranteed senior secured bank due July 23, 2019
- US\$631 million revolving first-lien guaranteed senior secured bank due Feb. 12, 2021

On Feb. 12, 2016, S&P Global Ratings lowered its corporate credit and issue-level ratings on Houston-based offshore drilling company Paragon Offshore PLC to 'D' from 'CC'. The downgrade followed Paragon's announcement that it filed for Chapter 11 under the U.S. Bankruptcy Code, under which it would implement a negotiated settlement with bondholders and lenders.

On March 18, 2016, S&P Global Ratings withdrew its rating on the issuer.

Table 60

Paragon Offshore PLC/Issuer Credit Rating History

Date	To
18-Mar-2016	NR/--/--
12-Feb-2016	D/--/--
15-Jan-2016	CC/Negative/--

Table 60**Paragon Offshore PLC/Issuer Credit Rating History (cont.)**

Date	To
17-Sep-2015	CCC-/Negative/--
12-Jun-2015	B/Negative/--
21-Nov-2014	BB-/Negative/--
15-Aug-2014	BB/Negative/--
23-Jun-2014	BB/Stable/--

Energy XXI Ltd.

- US\$400 million 3.00% senior unsecured convertible due Dec. 15, 2018
- US\$150 million revolving first-lien guaranteed senior secured bank due April 9, 2018
- US\$350 million revolving first-lien guaranteed senior secured bank due April 9, 2018
- US\$1.45 billion 11.00% senior second lien notes due March 15, 2020
- US\$750 million 9.25% senior notes due Dec. 15, 2017
- US\$500 million 7.50% senior unsecured notes due Dec. 15, 2021
- US\$650 million 6.875% senior unsecured notes due March 15, 2024
- US\$510 million 8.25% senior notes due Feb. 15, 2018

On Feb 16, 2016, S&P Global Ratings lowered its corporate credit ratings on Houston-based oil and gas exploration and production company Energy XXI Ltd. and its subsidiary, EPL Oil & Gas, to 'D' from 'CCC+'. The rating action reflected Energy XXI's announcement that it elected not to make the interest payment on its senior notes due 2018 and our belief that the company would not make this payment before the 30-day grace period ends. We believed the company would likely reorganize under Chapter 11.

On April 18, 2016, S&P Global Ratings withdrew its rating on the issuer.

On Dec. 30, the issuer executed the reorganization plan and emerged from Chapter 11. The issuer eliminated its \$3.6 billion of debt from the reorganization.

Table 61**Energy XXI Ltd./Issuer Credit Rating History**

Date	To
18-Apr-2016	NR/--/--
16-Feb-2016	D/--/--
02-Oct-2015	CCC+/Negative/--
03-Mar-2015	B-/Negative/--
16-Jan-2015	B/Negative/--
02-Sep-2014	B+/Negative/--
21-Aug-2012	B+/Stable/--
22-Dec-2011	B/Positive/--
02-Nov-2010	B/Stable/--
23-Dec-2009	B-/Stable/--
07-Dec-2009	CCC+/Watch Pos/--
13-Nov-2009	SD/NM/--

Table 61**Energy XXI Ltd./Issuer Credit Rating History (cont.)**

Date	To
04-Sep-2009	CC/Watch Neg/--
16-Mar-2009	B-/Negative/--
23-Jun-2008	B-/Stable/--
18-Apr-2008	CCC+/Positive/--
17-May-2007	CCC+/Stable/--

Denver Parent Corp.

- US\$250 million 12.25% senior unsecured pay-in-kind toggle notes due Aug. 15, 2018
- US\$500 million 8.875% senior notes due Feb. 15, 2019
- US\$175 million first-lien notes due Feb. 28, 2019
- US\$150 million second-lien notes due Feb. 28, 2019

On Feb 17, 2016, S&P Global Ratings lowered its corporate credit ratings on Denver-based Venoco Inc. and parent company Denver Parent Corp. to 'D' from 'CCC+'. The rating action reflected Venoco's announcement that it has elected not to make the interest payment on its 8.875% senior notes due 2019, and our belief that the company would not make this payment before the 30-day grace period ended on March 17, 2016.

On March 18, 2016, S&P Global Ratings withdrew its rating on the issuer.

Table 62**Denver Parent Corp./Issuer Credit Rating History**

Date	To
18-Mar-2016	NR/--/--
17-Feb-2016	D/--/--
22-Apr-2015	CCC+/Negative/--
03-Apr-2015	CCC+/Watch Neg/--
04-Nov-2014	CCC+/Negative/--
21-Aug-2014	B-/Watch Neg/--
08-Aug-2013	B-/Stable/--

PetroQuest Energy Inc.

- US\$350 million 10.00% senior notes due Sept. 1, 2017
- US\$144.6 million second-lien notes due Feb. 15, 2021
- US\$70 million revolving first-lien guaranteed senior secured bank due June 4, 2020
- US\$200 million 10.00% senior notes due Sept. 1, 2017

On Oct. 7, 2016, S&P Global Ratings lowered its corporate credit rating on Lafayette-based oil and gas exploration and production PetroQuest Energy Inc. to 'SD' from 'CC'. The downgrade followed PetroQuest's announcement that it completed its debt exchange offer to its existing holders. This was further viewed as a distressed exchange per our criteria because the investors would receive less than the promised amount on the securities.

On Oct. 21, 2016, S&P Global Ratings raised its corporate credit rating on PetroQuest Energy Inc. to 'CCC', on account

of the completed debt exchange offer by PetroQuest, whereby the issuer exchanged the majority of its outstanding senior unsecured notes for equity and newly issued senior secured second-lien pay-in-kind (PIK) notes.

Earlier, on Aug. 26, 2016, we lowered our corporate credit rating on the issuer to 'CC' from 'CCC' as the issuer announced a debt exchange offer with its existing holders of its \$145 million 10% senior secured second-lien notes and 10% senior unsecured notes for new senior secured second-lien notes due 2021 at par value.

On July 22, 2016, S&P Global Ratings raised its issue-level rating on the issuer to 'CCC' from 'SD'. The rating action reflected the issuer's completion of a debt exchange offer, whereby it exchanged a portion of its outstanding debt for a combination of common stocks and new second-lien secured notes at below-par value.

On Feb. 18, 2016, S&P Global Ratings lowered its corporate credit rating on PetroQuest to 'SD' from 'CC'. The downgrade followed PetroQuest's announcement that it completed an exchange offer with its existing holders of senior unsecured notes for cash, common stock, and a new issue of 10% senior secured second-lien notes due 2021. The company exchanged approximately \$214 million of the existing notes for \$54 million in cash, 4.3 million shares in common stock, and \$145 million in second-lien notes. We view this transaction as distressed because the investors received less than what was promised on the original securities.

Table 63

PetroQuest Energy Inc./Issuer Credit Rating History	
Date	To
21-Oct-2016	CCC/Negative/--
07-Oct-2016	SD/NM/--
26-Aug-2016	CC/Negative/--
22-Jul-2016	CCC/Negative/--
18-Feb-2016	SD/NM/--
15-Jan-2016	CC/Negative/--
30-Apr-2015	B-/Stable/--
10-Aug-2010	B/Stable/--
28-May-2010	B-/Watch Pos/--
23-Oct-2009	B-/Stable/--
26-Jan-2009	B-/Negative/--
31-Mar-2008	B/Stable/--
29-Jun-2007	B-/Stable/--
20-Apr-2006	CCC+/Positive/--
29-Apr-2005	CCC+/Stable/--

Chaparral Energy Inc.

- US\$550 million 7.625% senior notes due Nov. 15, 2022
- US\$400 million 8.25% senior unsecured notes due Sept. 1, 2021
- US\$300 million 9.875% senior unsecured notes due Oct. 1, 2020
- US\$750 million revolving first-lien guaranteed senior secured bank due Nov. 1, 2017

On March 1, 2016, S&P Global Ratings lowered its corporate credit rating on Oklahoma-based oil and gas exploration and production company Chaparral Energy Inc. to 'D' from 'CCC-'. The downgrade reflected Chaparral Energy's

announcement that it elected not to make the interest payment on its 8.25% senior notes due 2021 as well as our belief that the company would not make this payment before the 30-day grace period ended.

On April 7, 2016, S&P Global Ratings withdrew its rating on the issuer.

On Nov. 23, the issuer announced that it entered into a restructuring support agreement with bondholders and lenders to convert approximately \$1.2 billion of its outstanding debt to equity.

Table 64

Chaparral Energy Inc./Issuer Credit Rating History

Date	To
07-Apr-2016	NR/--/--
02-Mar-2016	D/--/--
16-Feb-2016	CCC-/Negative/--
21-Jan-2016	CCC+/Negative/--
02-Oct-2015	B-/Stable/--
16-Jan-2015	B/Stable/--
24-Jan-2014	B/Positive/--
14-Apr-2010	B/Stable/--
19-Feb-2010	CCC+/Watch Dev/--
09-Feb-2010	CCC+/Watch Pos/--
17-Dec-2009	CCC+/Negative/--
13-Oct-2009	CCC+/Watch Dev/--
19-Dec-2008	CCC+/Developing/--
14-Nov-2008	B/Watch Neg/--
24-Oct-2008	B/Watch Dev/--
15-Jul-2008	B/Watch Pos/--
10-Jan-2007	B/Stable/--
19-Sep-2006	B/Negative/--
14-Nov-2005	B+/Stable/--

Town Sports International Holdings Inc.

- US\$50 million revolver bank loan due May 11, 2016
- US\$45 million revolver bank loan due Nov. 15, 2018
- US\$360 million term bank loan due May 11, 2018
- US\$325 million term B bank loan due Nov. 15, 2020

On March 8, 2016, S&P Global Ratings lowered its corporate credit rating on New York-based Town Sports International Holdings Inc. to 'SD' from 'B-'. The downgrade reflected our conclusion that Town Sport's debt repurchase is equivalent to a distressed restructuring and tantamount to default. The company repurchased an aggregate \$30 million in the face value of its term loan under an amendment to its credit facility that allowed the repurchases, at an average price of 37% of par, for about \$11 million. We view this purchase as a distressed restructuring of the company's debt.

On March 10, 2016, S&P Global Ratings raised its corporate credit rating on Town Sports to 'CCC+' from 'SD'. The

'CCC+' rating reflected a highly leveraged capital structure that we believe is unsustainable over the long term, the ongoing risk of a conventional default, and the risk of another type of distressed debt restructuring.

Table 65

Town Sports International Holdings Inc./Issuer Credit Rating History	
Date	To
10-Mar-2016	CCC+/Negative/--
08-Mar-2016	SD/NM/--
06-Aug-2015	B-/Negative/--
12-Aug-2014	B/Negative/--
21-Feb-2014	B+/Negative/--
22-Mar-2012	B+/Stable/--
04-Apr-2011	B/Positive/--
27-Feb-2009	B/Stable/--
28-Aug-2006	B+/Stable/--
08-Jun-2006	B/Watch Pos/--
01-Jul-2005	B/Watch Dev/--
26-Jan-2004	B/Stable/--

Prospect Holding Co. LLC

- US\$150 million 10.25% notes due Oct. 1, 2018

On March 8, 2016, S&P Global Ratings lowered its corporate credit rating on California-based Prospect Holding Co. LLC to 'SD' from 'CC'. The downgrade followed the issuer's announcement of tender offer for substantially less than par value, which is considered a distressed debt exchange, per our criteria.

On March 10, 2016, S&P Global Ratings raised the long-term rating on Prospect to 'CCC-' from 'SD' to reflect the issuer's credit profile, rather than its distressed debt exchange. The outlook is negative.

Table 66

Prospect Holding Co. LLC/Issuer Credit Rating History	
Date	To
10-Mar-2016	CCC-/Negative/--
08-Mar-2016	SD/NM/--
09-Feb-2016	CC/Watch Neg/--
14-Jan-2016	CCC+/Developing/--
10-Nov-2015	CCC+/Negative/--
17-Sep-2015	B/Negative/--
18-Aug-2015	B/Watch Neg/--
12-Nov-2014	B/Negative/--
13-Jun-2014	B/Stable/--
11-Sep-2013	B+/Stable/--

Aspect Software Inc.

- US\$300 million 10.625% second-lien notes due May 15, 2017
- US\$500 million term loan bank loan due May 7, 2016
- US\$30 million revolving credit facility bank loan due Feb. 7, 2016

On March 10, 2016, S&P Global Ratings lowered its corporate credit rating on Chelmsford-based customer contact center software provider Aspect Software Inc. to 'D' from 'CCC'. The rating action followed the issuer filing for bankruptcy under Chapter 11 to seek financial restructuring.

On April 13, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

In May, the bankruptcy court overseeing the Chapter 11 proceedings of Aspect Software confirmed the issuer's reorganization plan.

Table 67

Aspect Software Inc./Issuer Credit Rating History	
Date	To
13-Apr-2016	NR/--/--
10-Mar-2016	D/--/--
22-Jan-2016	CCC-/Negative/--
01-Apr-2015	CCC+/Negative/--
18-Mar-2014	B-/Negative/--
29-Mar-2013	B-/Stable/--
28-Aug-2012	B-/Negative/--
15-Jun-2012	B/Stable/--
17-May-2011	B/Positive/--
20-Apr-2010	B/Stable/--
01-Dec-2008	CCC+/Developing/--
26-May-2006	B/Negative/--
07-Sep-2005	B/Stable/--

Linn Energy LLC

- US\$650 million 6.50% senior notes due Sept. 30, 2021
- US\$255.927 million 9.875% senior notes due July 1, 2018
- US\$250 million 11.75% senior notes due May 15, 2017
- US\$1.5 billion 6.25% senior notes due Nov. 1, 2019
- US\$1.3 billion 8.625% senior notes due April 15, 2020
- US\$1.2 billion 6.50% notes due May 15, 2019
- US\$1 billion 12.00% notes due Dec. 15, 2020
- US\$1 billion 7.75% senior notes due Feb. 1, 2021
- US\$600 million 6.375% notes due Sept. 15, 2022
- US\$300 million 6.75% senior notes due Nov. 1, 2020
- US\$12 billion revolving first-lien guaranteed senior secured bank due April 6, 2019
- US\$4 billion revolving first-lien guaranteed senior secured bank due April 6, 2019
- US\$5 million revolving first-lien guaranteed senior secured bank due April 6, 2019

On March 15, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based oil and gas exploration and production company Linn Energy LLC to 'D' from 'CCC'. The rating action followed Linn's announcement of a missed interest payment on 7.75% senior notes due 2021, 6.5% senior notes due 2021, and subsidiary Berry petroleum Co. LLC's senior notes due 2022.

Also, S&P Global Ratings lowered its issue-level rating on the second-lien debt to 'D' from 'CCC-' and removed the rating from CreditWatch with negative implications on Feb. 4, 2016.

On May 19, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Also in May, the issuer filed for Chapter 11 proceedings to implement a restructuring-support agreement with its bondholders. The bankruptcy court overseeing the Chapter 11 proceedings approved the adequacy of the issuer's disclosure statement.

Table 68

Linn Energy LLC/Issuer Credit Rating History	
Date	To
19-May-2016	NR/--/--
15-Mar-2016	D/--/--
04-Feb-2016	CCC/Negative/--
02-Oct-2015	B+/Negative/--
26-Jun-2015	BB-/Negative/--
24-Dec-2013	BB-/Stable/--
22-Feb-2013	B+/Watch Pos/--
28-Feb-2012	B+/Stable/--
10-May-2011	B+/Positive/--
16-Jun-2008	B+/Stable/--

Nuverra Environmental Solutions Inc.

- US\$400 million 9.875% senior notes due April 15, 2018

On March 17, 2016, S&P Global Ratings lowered its corporate credit rating on Scottsdale-based oilfield service provider Nuverra Environmental Solutions Inc. to 'SD' from 'CCC-'. The rating action followed Nuverra's announced exchange offer for new second-lien notes due 2021 for the existing 9.875% senior notes due 2018. We view the transaction as distressed, per our criteria.

On May 4, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Table 69

Nuverra Environmental Solutions Inc./Issuer Credit Rating History	
Date	To
04-May-2016	NR/--/--
17-Mar-2016	SD/NM/--
02-Mar-2016	CCC-/Negative/--
01-Oct-2014	B-/Stable/--
20-Dec-2013	B/Negative/--

Table 69**Nuverra Environmental Solutions Inc./Issuer Credit Rating History (cont.)**

Date	To
24-Oct-2012	B+/Stable/--
04-Sep-2012	B+/Watch Dev/--
12-Apr-2012	B+/Stable/--

Foresight Energy L.P.

- US\$600 million 7.875% senior notes due Aug. 15, 2021
- US\$550 million revolver bank loan due Aug. 23, 2018
- US\$510 million term B bank loan due Aug. 21, 2020

On March 17, 2016, S&P Global Ratings lowered its corporate credit rating on St. Louis-based coal producer Foresight Energy L.P. to 'D' from 'CCC-'. The rating action followed Foresight's failure to make timely interest payment, which is considered a default.

The issuer failed to make a \$23.6 million interest payment on its 7.875% senior notes due 2021 after previously exercising a 30-day grace period. As a result, the issuer triggered multiple default events under its credit agreement, securitization agreement, and the credit agreements.

On Sept. 21, 2016, S&P Global Ratings raised its corporate credit rating on the issuer to 'B-' from 'D'. The upgrade followed the issuer's restructuring plan that included exchange of its senior notes along with the associated amendments that further restored Foresight's access to its revolving credit facility with revised covenants. This was a positive development for the issuer and improved its business risk profile to among the strongest in the beleaguered coal industry.

Table 70**Foresight Energy L.P./Issuer Credit Rating History**

Date	To
21-Sep-2016	B-/Negative/--
17-Mar-2016	D/--/--
19-Feb-2016	CCC-/Negative/--
18-Dec-2015	CCC/Watch Dev/--
14-Oct-2014	B+/Stable/--
07-Aug-2013	B/Stable/--
31-May-2013	B/Positive/--
23-May-2012	B/Stable/--
26-Oct-2011	B-/Watch Dev/--
04-Aug-2010	B-/Positive/--

Peabody Energy Corp.

- US\$732.5 million 4.75% convertible junior subordinate hybrid due Dec. 15, 2066
- US\$650 million 6.50% notes due Sept. 15, 2020
- US\$250 million 7.875% senior notes due Nov. 1, 2026

- US\$1.65 billion revolving credit facility bank loan due Sept. 24, 2018
- US\$1.6 billion 6.00% senior notes due Nov. 15, 2018
- US\$1.5 billion bank loan due Sept. 24, 2018
- US\$1.5 billion 6.25% senior notes due Nov. 15, 2021
- US\$1.2 billion bank loan due Sept. 24, 2020
- US\$1 billion 10.00% second-lien notes due March 15, 2022
- US\$510 million delayed draw term loan bank loan due Sept. 24, 2020

On March 18, 2016, S&P Global Ratings lowered its corporate credit rating on Missouri-based coal producer Peabody Energy Corp. to 'D' from 'CCC+'. The rating action followed Peabody's decision to file for restructuring under Chapter 11 of the U.S. Bankruptcy Code. The issuer had approximately \$8.9 billion of adjusted debt outstanding at the end of 2015 and had obtained a \$800 million debtor-in-possession (DIP) financing package. Furthermore, the issuer announced the termination of its planned sale of the New Mexico and Colorado assets that led to missed interest payments on its senior unsecured notes.

On Oct. 25, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Table 71

Peabody Energy Corp./Issuer Credit Rating History	
Date	To
25-Oct-2016	NR/--/--
18-Mar-2016	D/--/--
15-Jan-2016	CCC+/Negative/--
15-Jul-2015	B/Stable/--
23-Jan-2015	BB-/Negative/--
09-May-2014	BB-/Stable/--
26-Aug-2013	BB/Stable/--
15-Sep-2008	BB+/Stable/--
11-Aug-2008	BB/Watch Pos/--
07-Jul-2006	BB/Stable/--
03-Jan-2006	BB/Positive/--
20-Jul-2001	BB/Stable/--
11-Aug-2000	BB-/Positive/--
11-May-1998	BB-/Stable/--

Usinas Siderurgicas de Minas Gerais S.A. (Usinas)

- US\$400 million 7.25% senior unsecured notes series 1 due Jan. 18, 2018
- BRL1 billion debentures due Jan. 30, 2019
- BRL600 million debentures due Dec. 31, 2020

On March 22, 2016, S&P Global Ratings lowered its corporate credit rating on Brazil-based steel producer Usinas Siderúrgicas de Minas Gerais S.A. (Usiminas) to 'SD' from 'CCC+'. The downgrade reflected the issuer's decision to execute a standstill agreement with the banks that allowed the issuer to suspend its principal payments on its bank loans for 120 days. The negotiation between the issuer and bank is considered distressed, per our criteria, and, as a result, was treated as tantamount to default on the part of the issuer. At the same time, we lowered the recovery

ratings on the issuer's senior unsecured debt to '6' from '5H', that reflected our expectation of negligible recovery of below 10%.

On Sept. 14, 2016, S&P Global Ratings raised its corporate credit rating on Usiminas to 'CCC+' from 'SD'. The upgrade reflected the issuer's completion of its debt restructuring with banks and debtholders, which bought a capital injection of about R\$1 billion from Usiminas' shareholders and improved its liquidity position in the market.

Table 72

Usinas Siderurgicas de Minas Gerais S.A. (Usiminas)/Issuer Credit Rating History	
Date	To
14-Sep-2016	CCC+/Negative/--
22-Mar-2016	SD/NM/--
29-Jan-2016	CCC+/Watch Neg/--
09-Oct-2015	B+/Negative/--
01-Jul-2015	BB-/Stable/--
20-Mar-2015	BB/Negative/--
07-May-2014	BB+/Stable/--
25-Apr-2013	BB+/Negative/--
24-Aug-2012	BB+/Stable/--
18-Mar-2011	BBB-/Negative/--
04-Jun-2007	BBB-/Stable/--
22-Dec-2006	BB+/Positive/--
18-May-2006	BB+/Stable/--
28-Feb-2006	BB/Watch Pos/--
03-Nov-2005	BB/Positive/--
19-Sep-2004	BB-/Stable/--
14-Jan-2004	B+/Positive/--

UCI Holdings Ltd.

On March 22, 2016, S&P Global Ratings lowered its corporate credit rating on UCI Holdings Ltd. to 'SD' from 'CCC'. The downgrade followed the issuer's announcement that it had entered into a forbearance agreement with holders of more than 80% of its 8.625% senior unsecured notes with respect to the issuer's failure to make its interest payment on its notes due Feb. 16, 2016.

Consequently, S&P Global Ratings lowered its issue-level rating on the issuer's senior unsecured notes to 'D' from 'CCC-' because the issuer failed to make its required interest payment within the 30-day grace period.

On Oct. 18, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

As reported, the issuer filed for Chapter 11 on June 2, 2016, on the terms of a consensual restructuring. The bankruptcy court overseeing the Chapter 11 proceedings of UCI Holdings confirmed the issuer's reorganization plan.

The issuer executed the reorganization plan and emerged from Chapter 11 on Dec. 30, 2016.

Table 73

UCI Holdings Ltd./Issuer Credit Rating History

Date	To
18-Oct-2016	NR/--/--
02-Jun-2016	D/--/--
22-Mar-2016	SD/NM/--
17-Feb-2016	CCC/Watch Neg/--
05-Oct-2015	CCC+/Stable/--
07-Apr-2015	CCC+/Negative/--
13-Aug-2013	B-/Stable/--
21-Aug-2012	B/Negative/--
27-Feb-2012	B/Stable/--
19-Aug-2011	B/Positive/--

Templar Energy LLC

- US\$550 million second-lien term bank loan due Dec. 31, 2021
- US\$1.45 billion second-lien term bank loan due Nov. 25, 2020
- US\$5 million revolving first-lien guaranteed senior secured bank due Nov. 25, 2018

On March 23, 2016, S&P Global Ratings lowered its corporate credit rating on Oklahoma-based oil and gas exploration and production company Templar Energy LLC to 'SD' from 'CCC-'. The rating action reflected the issuer's decision to miss its interest payment due on its second-lien term loans.

On Oct. 27, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Table 74

Templar Energy LLC/Issuer Credit Rating History

Date	To
27-Oct-2016	NR/--/--
23-Mar-2016	SD/NM/--
09-Feb-2016	CCC-/Negative/--
02-Oct-2015	B-/Negative/--
17-Nov-2014	B/Stable/--
06-Aug-2014	B/Positive/--
07-Nov-2013	B/Stable/--

American Media Inc.

- US\$385 million 11.50% senior secured first-lien notes due Dec. 15, 2017
- US\$104.9 million 13.50% senior secured second-lien notes due June 15, 2018
- US\$198.57 million second-lien notes due July 15, 2020
- US\$35 million revolving first-lien guaranteed senior secured bank due June 22, 2017

On March 23, 2016, S&P Global Ratings lowered its corporate credit rating on Boca Raton-based American Media Inc. to 'SD' from 'CCC+'. The downgrade followed the issuer's announcement that it completed an exchange of \$58.9 million of its existing 11.5% first-lien senior secured notes due 2017 for \$78 million and 7% senior secured second-lien

notes due 2020. Concurrent with the exchange, the company issued and distributed about \$83.5 million of additional second-lien notes to equityholders.

On April 7, 2016, S&P Global Ratings raised its corporate credit rating on American Media to 'CCC' from 'SD'. The upgrade followed our review of American Media's liquidity and capital structure after its distressed debt exchange, which was completed on March 21, 2016.

On Sept. 26, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Table 75

American Media Inc./Issuer Credit Rating History	
Date	To
26-Sep-2016	NR/--/--
07-Apr-2016	CCC/Negative/--
23-Mar-2016	SD/NM/--
07-Dec-2015	CCC+/Negative/--
19-Sep-2014	CCC/Negative/--
11-Sep-2014	SD/NM/--
18-Nov-2013	CCC+/Negative/--
15-Nov-2013	SD/NM/--
18-Jan-2013	CCC+/Negative/--
13-Sep-2012	B-/Negative/--
23-Mar-2012	B/Negative/--
04-Jan-2011	B/Stable/--
28-Jan-2002	NR/--/--
10-May-1999	NR/--/--
29-Apr-1999	B+/Stable/--

Mongolian Mining Corp.

- US\$600 million 8.875% notes due March 29, 2017
- US\$150 million term first-lien senior secured bank due loan Dec. 1, 2016

On March 24, 2016, S&P Global Ratings lowered its corporate credit rating on Mongolian coal miner Mongolian Mining Corp. (MMC) to 'D' from 'CCC-' after the issuer missed a payment on one of its amortizing bank loans. Because of cross-default clauses, this missed payment also constituted an event of default on certain other debts that contained cross-default provisions, including MMC's US\$600 million outstanding notes due in 2017.

Also, S&P Global Ratings lowered its rating in the issuer's outstanding notes to 'D'.

Table 76

Mongolian Mining Corp./Issuer Credit Rating History	
Date	To
24-Mar-2016	D/--/--
27-Jan-2016	CCC-/Negative/--
02-Sep-2015	CCC/Negative/--
31-Oct-2014	CCC+/Developing/--

Table 76

Mongolian Mining Corp./Issuer Credit Rating History (cont.)	
Date	To
27-May-2014	CCC+/Negative/--
02-Feb-2014	CCC+/Watch Neg/--
30-Aug-2013	B-/Watch Neg/--
14-May-2013	B/Negative/--
13-Mar-2013	B+/Negative/--
14-Mar-2012	B+/Stable/--

PDG Realty S.A. Empreendimentos E Participacoes

- BRL600 million debentures due Aug. 1, 2016
- BRL280 million debentures due Aug. 10, 2016
- BRL1.9 million debentures due Sept. 19, 2016
- BRL140 million 6.56% senior unsecured notes due March 15, 2018
- BRL97 million 0.00% senior unsecured notes due Sept. 30, 2016
- BRL250 million notes series 1 due July 1, 2014
- BRL300.0 million first-lien notes due March 15, 2016

On March 24, 2016, S&P Global Ratings corrected its ratings on Brazil-based PDG Realty S.A. Empreendimentos E Participacoes (PDG) because it misapplied "Rating Implications Of Exchange Offers And Similar Restructurings" and "Methodology: Timeliness Of Payments: Grace Periods, Guarantees, And Use Of 'D' And 'SD' Ratings." There was no clear compensation provided for missed payments before the latter on the company's debentures were missed. As a result, we should have lowered the ratings on PDG to 'SD' in September 2015 when it first missed payments on the debentures. The downgrade reflected our view that PDG has missed several payments on a portion of its debt while it restructured its capital structure according to its cash generation prospects.

On Aug. 3, 2016, S&P Global Ratings lowered its corporate credit rating on the issuer to 'D'. The rating action followed the issuer's missed principal payment on its debt issuance.

Furthermore, on Nov. 22, 2016, S&P Global Ratings withdrew its corporate credit rating on the issuer.

Table 77

PDG Realty S.A. Empreendimentos E Participacoes/Issuer Credit Rating History	
Date	To
22-Nov-2016	NR/--/--
03-Aug-2016	D/--/--
24-Mar-2016	SD/NM/--
18-Aug-2015	CCC-/Watch Neg/--
06-Aug-2015	B-/Negative/--
08-Oct-2014	B/Stable/--
12-Jul-2013	B/Negative/--
21-Dec-2012	BB-/Negative/--
28-Dec-2010	BB-/Stable/--

Southcross Holdings Borrower L.P.

- US\$575 million term B bank loan due Aug. 4, 2021
- US\$200 million revolving bank loan due Aug. 4, 2019
- US\$450 million term bank loan due Aug. 4, 2021

On March 28, 2016, S&P Global Ratings lowered its corporate credit rating on Texas-based midstream energy partnership Southcross Holdings Borrower L.P. (Holdings) to 'D' from 'CC'. The rating action followed the issuer's announcement that it filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code. The issuer had entered into a prepackaged plan of reorganization with its owners, senior lenders, and preferred equityholders.

On April 26, 2016, S&P Global Ratings withdrew its rating at the issuer's request.

On June 20, 2016, S&P Global Ratings assigned its 'CCC+' corporate credit rating to Southcross Holdings L.P. The rating action reflected the issuer's emergence from bankruptcy protection, which allowed it to eliminate over \$700 million of its funded debt and preferred equity. This further improved Southcross' capital structure and near-term liquidity.

Table 78

Southcross Holdings Borrower LP/Issuer Credit Rating History	
Date	To
20-Jun-2016	CCC+/Stable/--
26-Apr-2016	NR/--/--
28-Mar-2016	D/--/--
18-Mar-2016	CC/Negative/--
11-Jan-2016	CCC-/Negative/--
15-Oct-2015	B-/Negative/--
10-Jul-2014	B-/Stable/--

SquareTwo Financial Corp.

- US\$290 million 11.625% senior secured second-lien notes due April 1, 2017

On April 1, 2016, S&P Global Ratings lowered its long-term issuer credit rating on Denver-based financial company SquareTwo Financial Corp. to 'D' from 'CCC'. The rating action followed the announcement by SquareTwo that it would not make its scheduled April 1, 2016, interest payment on the US\$290 million second-lien senior secured notes due April 2017.

On June 3, 2016, S&P Global Ratings raised its long-term issuer credit rating on SquareTwo to 'CCC+' from 'D'. The rating action followed the restructuring of SquareTwo's second-lien notes and its attainment of a new first-lien revolving credit facility.

Table 79

SquareTwo Financial Corp./Issuer Credit Rating History	
Date	To
03-Jun-2016	CCC+/Negative/--
01-Apr-2016	D/--/--
11-Dec-2015	CCC/Watch Neg/--

Table 79**SquareTwo Financial Corp./Issuer Credit Rating History (cont.)**

Date	To
13-Mar-2014	B-/Negative/--
23-Mar-2012	B/Negative/--
24-Mar-2010	B/Stable/--

Midstates Petroleum Co. Inc.

- US\$700 million 9.25% senior unsecured notes due June 1, 2021
- US\$625 million 10.00% senior second-lien notes due June 1, 2020
- US\$600 million 10.75% senior unsecured notes due Oct. 1, 2020
- US\$524.121 million senior third-lien notes due Dec. 31, 2020

On April 4, 2016, S&P Global Ratings lowered its corporate credit rating on Tulsa-based oil and gas exploration and production company Midstates Petroleum Co. Inc. to 'D' from 'CCC-'. The 'D' rating reflected Midstates Petroleum's announcement that it elected not to make the interest payment on its 10.75% senior notes due 2020. We believed that the issuer would not make this payment before the 30-day grace period ended. Shortly thereafter, the company filed for Chapter 11.

On Oct. 24, 2016, Midstates Petroleum emerged from voluntary bankruptcy protection, with a roughly \$2 billion reduction in total debt.

Table 80**Midstates Petroleum Co. Inc./Issuer Credit Rating History**

Date	To
06-May-2016	NR/--/--
04-Apr-2016	D/--/--
10-Feb-2016	CCC-/Negative/--
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/--
06-Sep-2012	B/Stable/--

Rex Energy Corp.

- US\$350 million 8.875% senior unsecured notes due Dec. 1, 2020
- US\$325 million 6.25% senior notes due Aug. 1, 2022
- US\$633.65 million second-lien notes due Oct. 1, 2020
- US\$100 million 8.875% senior unsecured notes due Dec. 1, 2020
- US\$400 million revolving first-lien guaranteed senior secured bank loan due Sept. 12, 2019

On April 4, 2016, S&P Global Ratings lowered its corporate credit rating on State College-based oil and gas exploration and production company Rex Energy Corp. to 'SD' from 'CC'. The downgrade followed Rex's announcement that it

closed an exchange offer to existing holders of its 8.875% and 6.25% senior unsecured notes for a new issue of 8% senior secured second-lien notes due 2020 (not rated) and shares of common equity. We view the transaction as a distressed exchange because at the close of the transaction investors would receive interest at a later date, and to an extent, a lesser amount than promised on the original securities.

On June 3, 2016, S&P Global Ratings said that the corporate credit rating on Rex Energy Corp. remains 'SD', reflecting the potential for additional exchanges of the company's remaining unsecured and secured notes. Following the rating action, we withdrew the corporate credit and issue-level ratings at the company's request.

Table 81

Rex Energy Corp./Issuer Credit Rating History	
Date	To
03-Jun-2016	NR/--/--
04-Apr-2016	SD/NM/--
12-Feb-2016	CC/Negative/--
08-Jan-2016	CCC-/Negative/--
25-Feb-2015	B-/Stable/--
06-Dec-2012	B/Stable/--
03-Dec-2012	NR/--/--
13-Nov-2012	B/Stable/--

Ultra Petroleum Corp.

- US\$850 million 6.125% senior notes due Oct. 1, 2024
- US\$450 million 5.75% senior notes due Dec. 15, 2018

On April 4, 2016, S&P Global Ratings lowered the corporate credit rating on Houston-based oil and gas exploration and production company Ultra Petroleum Corp. to 'D' from 'CC'. The rating action reflected Ultra Petroleum's announcement that it elected to defer the US\$26 million interest payment due April 1, 2016, on its 6.125% senior unsecured notes due 2024. We believed that the issuer would not make this payment before the 30-day grace period ended. It also reflected our view that the issuer would not meet its other financial obligations, including interest and principal payments on its other senior unsecured notes, and that it had breached financial covenants at the end of the first quarter.

On May 5, 2016, we withdrew our ratings on the issuer.

Table 82

Ultra Petroleum Corp./Issuer Credit Rating History	
Date	To
05-May-2016	NR/--/--
04-Apr-2016	D/--/--
03-Mar-2016	CC/Negative/--
01-Feb-2016	CCC-/Negative/--
02-Oct-2015	B+/Negative/--
30-Apr-2015	BB/Negative/--
02-Dec-2013	BB/Stable/--

UkrLandFarming PLC

- US\$500 million 10.875% notes due March 26, 2018
- US\$600 million first senior secured term bank loan due June 24, 2016

On April 8, 2016, S&P Global Ratings lowered its corporate credit rating on Ukraine-based UkrLandFarming PLC to 'SD' from 'CC'. The downgrade followed the company's default on some of its credit facilities, including payment of interest due on March 26, 2016, on US\$500 million notes maturing in 2018. We suspended the ratings to reflect the lack of sufficient information to adequately assess the company's corporate creditworthiness and make a well-informed rating decision.

Table 83

UkrLandFarming PLC/Issuer Credit Rating History	
Date	To
08-Apr-2016	NR/--/--
08-Apr-2016	SD/NM/--
01-Apr-2015	CC/Negative/--
24-Dec-2014	CCC-/Negative/--
18-Jul-2014	CCC/Stable/--
07-Mar-2014	CCC/Negative/--
11-Feb-2014	CCC+/Negative/--
12-Mar-2013	B-/Negative/--

Government Development Bank for Puerto Rico

- US\$96.411 million 5.75% callable (Issuer Subsidy Build America Bonds) notes series D due Aug. 1, 2025
- US\$740 million senior notes series 2006-B due Dec. 12, 2017
- US\$650 million notes series 2011B due May 1, 2016
- US\$500 million notes series 2011-G
- US\$500 million notes series A due Feb. 1, 2019
- US\$50.43 million 5.50% callable senior notes due Feb. 01, 2017
- US\$317.94 million notes series 2011-I due Aug. 1, 2018
- US\$151.259 million 5.75% callable senior (Issuer Subsidy Build America Bonds) notes series 2010B due Aug. 1, 2025
- US\$433.702 million callable senior notes series 2010A due Aug. 1, 2020
- US\$226.855 million notes series 2011-H due Aug. 1, 2017
- US\$174.545 million notes series 2011-H due Aug. 1, 2019
- US\$142.640 million notes series 2011-H due Aug. 1, 2021
- US\$47.467 million notes series 2011-H due Aug. 1, 2022
- US\$540.745 million notes series 2011-H due Aug. 1, 2023
- US\$126.820 million notes series 2011-H due Aug. 1, 2026
- US\$217.715 million callable senior notes series C due Aug. 1, 2019

On April 11, 2016, S&P Global Ratings lowered its issuer credit rating on San Juan-based bank Government Development Bank for Puerto Rico to 'SD' from 'CC'. The rating action came after Puerto Rico passed an executive order to declare an "emergency period" at the island's Government Development Bank (GDB). This action prevented GDB's depositors, including municipalities and public agencies, from withdrawing funds from the bank, except for the

purpose of funding "essential services."

On Dec. 9, 2016, S&P Global Ratings lowered its issuer credit rating on GDB to 'D' from 'SD' following confirmation that GDB missed principal and interest payments due Dec. 1, 2016.

Table 84

Government Development Bank For Puerto Rico/Issuer Credit Rating History	
Date	To
09-Dec-2016	D/--/--
11-Apr-2016	SD/NM/--
14-Jul-2015	CC/Negative/--
30-Jun-2015	CCC-/Negative/--
24-Apr-2015	CCC/Negative/--
12-Feb-2015	B-/Negative/--
11-Jul-2014	BB-/Negative/--
27-Jun-2014	BB/Watch Neg/--
14-Mar-2014	BB/Negative/--
04-Feb-2014	BB/Watch Neg/--
24-Jan-2014	BBB-/Watch Neg/--
14-Mar-2013	BBB-/Negative/--
25-Jun-2012	BBB/Negative/--
13-Dec-2007	BBB/Stable/--
22-May-2007	BBB-/Stable/--
21-Jul-2006	BBB/Negative/--
22-Mar-2006	BBB/Watch Neg/--
21-Oct-2005	BBB/Negative/--
24-May-2005	BBB+/Negative/--
11-Jan-2005	A/Negative/--
30-May-2002	A/Stable/--
13-Jul-2001	A+/Watch Neg/--
14-Aug-1997	A+/Stable/--

Cliffs Natural Resources Inc.

- US\$800 million 6.25% senior notes due Oct. 1, 2040
- US\$700 million 4.875% senior notes due April 1, 2021
- US\$544 million 7.75% second-lien notes due March 30, 2020
- US\$540 million 8.25% first-lien notes due March 30, 2020
- US\$500 million 4.80% senior notes due Oct. 1, 2020
- US\$500 million 3.95% senior notes due Jan. 15, 2018
- US\$400 million 5.90% senior notes due March 15, 2020

On April 12, 2016, S&P Global Ratings lowered its corporate credit rating on Cleveland-based iron ore producer Cliffs Natural Resources Inc. to 'SD' from 'CC'. The rating action reflected Cliffs' announcement that it completed a private debt exchange in which US\$512 million in debt principal, consisting of second-lien notes and various senior unsecured notes, was exchanged for US\$219 million in new 8.00% 1.5-lien senior secured notes due 2020. The exchange is

distressed, per our criteria.

On April 14, 2016, S&P Global Ratings raised the corporate credit rating on Cliffs Natural Resources to 'CCC+' from 'SD'. The new 'CCC+' corporate credit rating on Cliffs indicated that the issuer is currently vulnerable and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments in the long term.

Table 85

Cliffs Natural Resources Inc./Issuer Credit Rating History	
Date	To
14-Apr-2016	CCC+/Negative/--
12-Apr-2016	SD/NM/--
28-Jan-2016	CC/Negative/--
30-Jan-2015	B/Stable/--
07-Oct-2014	BB-/Negative/--
11-Jun-2014	BBB-/Negative/--
21-Feb-2013	BBB-/Stable/--
05-Dec-2012	BBB-/Negative/--
10-Mar-2010	BBB-/Stable/--

Vertellus Specialties Inc.

- US\$455 million first-lien term bank loan due Dec. 31, 2019
- US\$335 million first-lien term bank loan due Dec. 31, 2021
- US\$55 million delayed draw first-lien term bank loan due Dec. 31, 2021
- US\$85 million second-lien term bank loan due Dec. 31, 2022

On April 12, 2016, S&P Global Ratings lowered its corporate credit rating on Indianapolis-based specialty chemical company Vertellus Specialties Inc. to 'D' from 'CCC'. The 'D' rating reflected Vertellus' failure to make its April interest payment on its senior secured loan due 2019.

Shortly afterward, Vertellus filed for bankruptcy protection under Chapter 11 in May.

Table 86

Vertellus Specialties Inc./Issuer Credit Rating History	
Date	To
19-May-2016	NR/--/--
12-Apr-2016	D/--/--
01-Mar-2016	CCC/Negative/--
11-May-2015	B-/Negative/--
23-Oct-2014	B-/Stable/--
30-Jul-2014	B-/Positive/--
09-May-2014	CCC+/Developing/--
24-May-2013	CCC+/Stable/--
10-Apr-2012	B-/Negative/--
30-Nov-2011	B-/Negative/--
22-Sep-2010	B/Stable/--

Norske Skogindustrier ASA

- €500 million 7.00% notes due June 26, 2017
- €290 million 11.75% callable bank loan due Dec. 15, 2019
- €150 million 11.75% notes due June 15, 2016
- US\$200 million 7.125% bonds due Oct. 15, 2033

On April 13, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Norway-based paper producer Norske Skogindustrier ASA (Norske Skog) to 'SD' from 'CC'. The downgrade followed the completion of Norske Skog's exchange offer on its €218 million senior unsecured notes maturing in June 2017. About 76% of noteholders agreed to participate in the exchange, which was above the 75% threshold whereby the offer became binding for all noteholders.

On April 29, 2016, S&P Global Ratings raised the long-term corporate credit rating on Norske Skog to 'CCC-' from 'SD'. The rating action followed our assessment of Norske Skog's liquidity position after the issuer completed its debt exchange offer.

On July 21, 2016, S&P Global Ratings raised the long-term corporate credit rating on Norske Skog to 'CCC+' from 'CCC-'. The outlook is stable. The issuer repaid debt maturing in June 2016 in full and on time, and the rating now reflects the issuer's light maturity profile until late 2019.

Table 87

Norske Skogindustrier ASA/Issuer Credit Rating History	
Date	To
21-Jul-2016	CCC+/Stable/--
29-Apr-2016	CCC-/Watch Dev/--
13-Apr-2016	SD/NM/--
17-Nov-2015	CC/Watch Neg/--
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/--

Table 87

Norske Skogindustrier ASA/Issuer Credit Rating History (cont.)	
Date	To
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/--

Logan's Roadhouse Inc.

- US\$355 million 10.75% second-lien senior secured notes due Oct. 15, 2017
- US\$112.5 million 10.75% senior notes series 2015-1 pay-in-kind due Oct. 16, 2017
- US\$109.7 million 4.00% senior notes series 2015-2 due Oct. 16, 2017
- US\$30 million revolving credit facility bank loan due Dec. 6, 2011

On April 18, 2016, S&P Global Ratings lowered its ratings on Nashville-based restaurant operator Logan's Roadhouse Inc., including the corporate credit rating, to 'D' from 'CCC-'. The rating reflected Logan's announcement that it elected not to make the April 15, 2016, interest payments on its 10.75% senior secured notes due 2017 and series 2015-2 notes due October 2017. S&P Global Ratings believed that the issuer would not make this payment within the 30-day grace period.

In August, Logan's Roadhouse filed for Chapter 11 bankruptcy in order to plan and execute a restructuring support agreement for its revolving facility lenders and holders of nearly 84% of the company's notes. On Sept. 28, the issuer filed an amended reorganization plan that was approved by the bankruptcy court.

On Nov. 18, 2016, we withdrew our ratings on the issuer.

The issuer executed the reorganization plan and emerged from Chapter 11 on Nov. 23, 2016.

Table 88

Logan's Roadhouse Inc./Issuer Credit Rating History	
Date	To
18-Nov-2016	NR/--/--
18-Apr-2016	D/--/--
31-Mar-2016	CCC-/Watch Neg/--
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/--

Table 88**Logan's Roadhouse Inc./Issuer Credit Rating History (cont.)**

Date	To
31-Aug-2010	B-/Stable/--
07-Jun-2010	B-/Watch Pos/--
25-Mar-2008	B-/Stable/--
01-Nov-2006	B-/Positive/--

CHC Group Ltd.

- US\$375 million revolver bank loan due Jan. 24, 2019
- US\$300 million 9.375% notes due June 1, 2021
- US\$200 million 9.25% notes due Oct. 15, 2020
- US\$1.1 billion 9.25% notes due Oct. 15, 2020

On April 19, 2016, S&P Global Ratings lowered its long-term corporate credit rating on U.K.-based helicopter flight and maintenance services provider CHC Group Ltd. to 'D' from 'CCC'. The downgrade reflected CHC's decision to skip an interest payment on its 9.25% senior secured notes due Oct. 15, 2020.

In May, the issuer filed for Chapter 11 in bankruptcy court. CHC Group was planning to secure approval from the court for a plan support agreement that would provide the company with approximately \$450 million in new capital.

On Aug. 19, 2016, S&P Global Ratings affirmed the long-term corporate credit and issue-level ratings and subsequently withdrew the ratings at the issuer's request. During that time, the issuer was engaged in negotiations with its debtholders to reach a definitive agreement on debt restructuring.

Table 89**CHC Group Ltd./Issuer Credit Rating History**

Date	To
19-Aug-2016	NR/--/--
19-Apr-2016	D/--/--
16-Mar-2016	CCC/Negative/--
16-Apr-2015	B/Stable/--
08-Dec-2014	B+/Stable/--

Edcon Holdings Ltd.

- €425 million 13.375% senior notes due June 30, 2019
- €241.3 million 13.375% senior notes due June 30, 2019
- €123.25 million term first-lien senior secured bank loan due Dec. 31, 2017
- €300 million 9.50% notes due March 1, 2018
- €317 million, US\$250 million 9.50% (guaranteed) bonds due March 1, 2018
- €317 million, US\$250 million 9.50% (guaranteed) bonds due March 1, 2018
- ZAR 2.584 billion floating-rate bank loan due Jan. 1, 2018
- ZAR1.104 billion bank loan due Jan. 1, 2018
- ZAR3.417 billion floating-rate bank loan due Jan. 1, 2018
- ZAR1.85 billion floating-rate bank loan due Jan. 1, 2018

- €94.774 million bank loan due June 30, 2019
- €36.196 million bank loan due June 30, 2019
- €36 million floating-rate bank loan due Dec. 27, 2017
- ZAR3.417 billion term senior secured bank loan due Dec. 31, 2017
- ZAR3.717 billion revolving senior secured bank loan due Dec. 31, 2016
- €70.64 million 8.00% first-lien notes due June 30, 2019
- €24.13 million 8.00% first-lien notes due June 30, 2019
- €36.19 million 12.75% first-lien notes due June 30, 2019
- €24.13 million 8.00% first-lien notes due June 30, 2019
- €21.66 million 8.00% first-lien notes due June 30, 2019
- €21.66 million 8.00% first-lien notes due June 30, 2019

On April 19, 2016, S&P Global Ratings lowered its corporate credit rating on South Africa-based non-food retailer Edcon Holdings Ltd. to 'SD' from 'CCC+'. The downgrade followed Edcon's nonpayment of interest due March 15, 2016, on its 9.5% euro- and U.S. dollar-denominated senior secured notes due March 2018 to its senior secured bondholders within the 30-day grace period, which expired on April 14, 2016. Per our criteria, we considered Edcon's missed interest payment a payment default.

Table 90

Edcon Holdings Ltd./Issuer Credit Rating History	
Date	To
19-Apr-2016	SD/NM/--
02-Feb-2016	CCC+/Negative/--
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/--

Odebrecht Oleo e Gas S.A. (Odebrecht S.A.)

- US\$470 million first-lien senior secured bank loan due Dec. 31, 2019
- US\$550 million 7.00% notes

On April 20, 2016, S&P Global Ratings lowered its corporate credit rating on Brazil-based oil and gas exploration and production company Odebrecht Oleo e Gas S.A. (OOG) to 'D' from 'CC'. The 'D' rating reflected OOG's failure to make the interest payment on the aggregate US\$550 million 7.00% senior secured perpetual notes, after the end of its 30-day grace period from the original interest payment date on March 17, 2016. The perpetual notes were issued by Odebrecht Oil & Gas Finance Ltd. and fully guaranteed by OOG.

Table 91**Odebrecht Oleo E Gas S.A. (Odebrecht S.A.)/Issuer Credit Rating History**

Date	To
20-Apr-2016	D/--/--
17-Mar-2016	CC/Watch Neg/--
01-Mar-2016	CCC+/Watch Neg/--
02-Oct-2015	B/Watch Neg/--
24-Mar-2015	BB-/Stable/--
17-Dec-2014	BB+/Stable/--
03-Jun-2014	BBB-/Stable/--

Penn Virginia Corp.

- US\$775 million 8.50% senior unsecured notes due May 1, 2020
- US\$300 million 7.25% senior unsecured notes due April 15, 2019
- US\$300 million 10.375% senior unsecured notes due June 15, 2016

On April 20, 2016, S&P Global Ratings lowered its corporate credit rating on Radnor-based oil and gas exploration and production company Penn Virginia Corp. to 'D' from 'CCC'. The 'D' rating reflected Penn Virginia's decision not to make the interest payment on its 7.25% senior unsecured notes due 2019 on April 15. We believed that the issuer would not make this payment before the 30-day grace period ended and that the issuer would likely reorganize under Chapter 11.

In May, Penn Virginia filed for Chapter 11 in bankruptcy court and entered into a restructuring support agreement with holders of 87% of the company's approximate \$1.2 billion of funded debt obligations. The bankruptcy court had approved the plan, allowing the issuer to cancel existing stock and issue new common stock to the bondholders and certain general unsecured claimholders in August 2016. Later, the issuer emerged from Chapter 11 after it closed the reorganization plan in September 2016.

Table 92**Penn Virginia Corp./Issuer Credit Rating History**

Date	To
23-May-2016	NR/--/--
20-Apr-2016	D/--/--
22-Dec-2015	CCC/Negative/--
19-Aug-2015	B-/Negative/--
28-May-2015	B/Stable/--
13-May-2014	B+/Stable/--
19-Oct-2012	B/Positive/--
14-Mar-2012	B/Negative/--
05-Apr-2011	BB-/Negative/--
04-Jun-2009	BB-/Stable/--

Community Choice Financial Inc.

- US\$395 million 10.75% notes due May 1, 2019
- US\$25 million 12.75% first-lien notes due May 1, 2020

- US\$31.70 million revolving first-lien guaranteed senior secured bank due March 27, 2017

On April 22, 2016, S&P Global Ratings lowered its issuer credit ratings on Dublin-based finance company Community Choice Financial Inc. (CCFI) to 'SD' from 'B-'. The rating action followed the issuer's ongoing debt repurchases at substantially discounted prices, which, per our criteria, is tantamount to default.

On April 26, 2016, S&P Global Ratings raised the long-term issuer credit rating on Community Choice Financial to 'CCC' from 'SD'. Over several transactions, CCFI repurchased its senior secured notes with a notional value of US\$141.1 million for US\$42.1 million on the open market, which we viewed as tantamount to default because the purchase price was substantially below par. Subsequent to the redemption, CCFI has approximately US\$278.9 million of senior notes outstanding.

Table 93

Community Choice Financial Inc./Issuer Credit Rating History

Date	To
26-Apr-2016	CCC/Negative/--
22-Apr-2016	SD/NM/--
27-May-2015	B-/Negative/--
18-Jul-2013	B-/Stable/--
06-Dec-2012	B-/Negative/--
25-Jul-2012	B-/Positive/--
14-Apr-2011	B-/Stable/--
23-Jun-2008	CCC+/Negative/--
02-May-2008	B/Watch Neg/--
06-Apr-2006	B/Stable/--

Trident Resources Corp.

- CAD\$175 million 8.25% senior unsecured notes due April 13, 2018

On April 22, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Canada-based exploration and production company Trident Resources Corp. to 'D' from 'CCC-'. The rating action reflected Trident's decision to skip an interest payment on its 8.25% senior unsecured notes due April 13, 2018. The issuer was not likely to make this payment before the 30-day grace period ended.

On Nov. 9, 2016, S&P Global Ratings withdrew its ratings on the issuer.

Table 94

Trident Resources Corp./Issuer Credit Rating History

Date	To
09-Nov-2016	NR/--/--
22-Apr-2016	D/--/--
21-Mar-2016	CCC-/Negative/--
19-Mar-2015	CCC+/Negative/--
21-Mar-2014	CCC+/Stable/--
25-Apr-2013	CCC+/Negative/--

Table 94**Trident Resources Corp./Issuer Credit Rating History (cont.)**

Date	To
05-Dec-2012	B-/Negative/--
01-Apr-2011	B-/Stable/--

White Star Petroleum LLC

- US\$237.6 million 12.00% senior second-lien notes due Dec. 31, 2020
- US\$350 million 9.00% notes due Sept. 15, 2022

On April 28, 2016, S&P Global Ratings lowered its corporate credit rating on Oklahoma City-based oil and gas exploration and production company White Star Petroleum LLC (formerly American Energy – Woodford LLC) to 'SD' from 'CCC'. The downgrade followed the issuer's disclosure that it repurchased US\$148 million in face value of its 12% second-lien notes for US\$19.4 million in cash, via several separate open-market transactions. We view these well below-par repurchases as distressed exchanges, given our belief that there was a realistic possibility of default prior to the transactions.

On July 26, 2016, S&P Global Ratings raised the corporate credit rating on White Star Petroleum to 'CCC+' from 'SD'. The upgrade followed the issuer's exchange of essentially all of its second-lien debt at below par. White Star has also completed the acquisition of producing properties from Devon Energy Corp. that doubled the issuer's production and added more than 40% to its year-end 2015 proven reserve base. Despite the debt reduction and material improvement in leverage, we still believed the company could face a liquidity shortfall. The ratings were subsequently withdrawn at the issuer's request on Aug. 17, 2016.

Table 95**White Star Petroleum LLC/Issuer Credit Rating History**

Date	To
17-Aug-2016	NR/--/--
26-Jul-2016	CCC+/Negative/--
28-Apr-2016	SD/NM/--
10-Feb-2016	CCC/Negative/--
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/--

ION Geophysical Corp.

- US\$175 million 8.125% second priority notes due May 15, 2018
- US\$56.12 million second-lien notes due Dec. 15, 2021
- US\$64.45 million second-lien notes due Dec. 15, 2021

On April 29, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based oil and gas exploration and production company ION Geophysical Corp. to 'SD' from 'CC'. The downgrade followed ION's announcement that

it closed an exchange offer to existing holders of its 8.125% second-lien notes due 2018 for new 9.125% second-lien notes due 2021 and shares of common equity. The issuer's exchange offer to holders of the 8.125% second-lien notes includes 100% of par value and 10 shares of common stock for those that tendered before the early tender deadline and 100% of par value and seven shares of common stock for those that tendered after the early tender deadline.

In addition, the issuer has accepted for purchase US\$25.9 million tendered 8.125% notes for a purchase price of US\$15 million. These transactions, according to our criteria, are distressed exchanges because the new securities' maturity extends beyond the original promised date, and investors that tendered for cash received less than the original promised amount.

On Oct. 6, 2016, S&P Global Ratings raised the corporate credit rating on ION Geophysical to 'CCC+' from 'SD'. The outlook is negative. The upgrade followed the partial exchange of its 8.125% notes maturing in 2018 for new 9.125% second-lien notes maturing in 2021. In our view, the issuer's business risk profile is still vulnerable, based on its participation in the volatile and cyclical seismic data acquisition end market and its small scale compared with other much larger players in the industry.

Table 96

ION Geophysical Corp./Issuer Credit Rating History

Date	To
06-Oct-2016	CCC+/Negative/--
29-Apr-2016	SD/NM/--
01-Mar-2016	CC/Negative/--
15-Jun-2015	CCC/Developing/--
24-Nov-2014	B-/Negative/--
10-Dec-2013	B/Negative/--
01-May-2013	B+/Stable/--

Perpetual Energy Inc.

- CAD\$125 million 8.75% notes due July 23, 2019
- CAD\$150 million 8.75% senior unsecured notes due March 15, 2018

On April 29, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Canada-based oil and gas exploration and production company Perpetual Energy Inc. to 'SD' from 'CC'. The downgrade followed Perpetual's announcement that it completed its previously announced securities swap proposal to existing holders of its 8.75% senior unsecured notes (both due 2018 and 2019) for shares of Tourmaline Oil Corp. held by the issuer. The issuer swapped C\$150 million senior notes (C\$76.8 million of the 2018 notes and C\$73.2 million of the 2019 notes) for 3.1 million Tourmaline shares. Based on current market values, we estimate that the total considerations offered equal about 60% of the bonds' par value. The transaction, per S&P Global Ratings' criteria, is a distressed exchange because investors will receive less than what was promised on the original securities.

On Oct. 7, 2016, S&P Global Ratings withdrew the ratings due to lack of sufficient, satisfactory information.

On Dec. 12, 2016, S&P Global Ratings lowered the long-term corporate credit rating on the issuer to 'CC' from 'CCC'. The rating action followed the issuer's announcement that it launched a securities swap proposal to existing holders of

its 8.75% senior unsecured notes (both due 2018 and 2019) for a new 8.75% senior unsecured note due 2021.

Table 97

Perpetual Energy Inc./Issuer Credit Rating History

Date	To
12-Dec-2016	CC/Negative/--
10-Nov-2016	CCC/Negative/--
07-Oct-2016	NR/--/--
29-Apr-2016	SD/NM/--
19-Apr-2016	CC/Negative/--
11-Mar-2016	CCC+/Stable/--
16-Jul-2014	B-/Stable/--
27-Feb-2014	CCC+/Stable/--
05-Dec-2012	CCC+/Developing/--
07-Jun-2012	B-/Negative/--
14-Feb-2012	B/Negative/--
01-Mar-2011	B/Stable/--

Fairway Group Holdings Corp.

- US\$275 million term bank loan due Aug. 17, 2018
- US\$40 million revolver bank loan due Aug. 17, 2017

On May 3, 2016, S&P Global Ratings lowered its corporate credit rating on New York City-based specialty grocer Fairway Group Holdings Corp. to 'D' from 'CCC-'. The rating action reflected Fairway's announcement that it filed for a Chapter 11 prepackaged bankruptcy agreement with certain creditors in order to reorganize.

On May 16, 2016, S&P Global Ratings assigned the 'B' point-in-time rating to Fairway Group's US\$55 million DIP term loan and US\$30.6 million revolving credit facility. The corporate credit rating on Fairway Group Holdings Corp. remains 'D'.

On July 14, 2016, S&P Global Ratings withdrew the ratings on Fairway Group because we no longer perform surveillance on the company after it emerged from bankruptcy protection on July 3, 2016.

Table 98

Fairway Group Holdings Corp./Issuer Credit Rating History

Date	To
14-Jul-2016	NR/--/--
03-May-2016	D/--/--
08-Mar-2016	CCC-/Negative/--
03-Nov-2015	CCC+/Negative/--
01-Sep-2015	B-/Negative/--
20-Sep-2013	B-/Stable/--

Fairmount Santrol Inc.

- US\$325 million first-lien term B-1 bank loan due July 15, 2018
- US\$100 million revolving first-lien guaranteed senior secured bank loan due Sept. 5, 2018
- US\$100 million revolver bank loan due Sept. 5, 2018
- US\$926 million first-lien term B-2 bank loan due Sept. 5, 2019
- US\$100 million first-lien guaranteed senior secured term B-1 bank loan due March 15, 2017
- US\$159.87 million first-lien guaranteed senior secured term B-1 extension bank loan due Sept. 5, 2019

On May 5, 2016, S&P Global Ratings lowered its corporate credit rating on Chesterland-based industrial sand producer Fairmount Santrol Inc. to 'SD' from 'CCC+'. The rating action followed an amendment to Fairmount's credit agreement extending the maturity date of approximately 89% (US\$139 million) of the principal amount of outstanding tranche B-1 term loans to July 2018 from March 2017. In conjunction with the extension, Fairmount redeemed 50% (US\$70 million) of the extended term loan maturities. The amendment is tantamount to a default under our criteria, which we view as a distressed restructuring without compensation to investors.

On May 13, 2016, S&P Global Ratings raised the corporate credit rating on Fairmount to 'B-' from 'SD'. The upgrade followed S&P Global Ratings' review of Fairmount's liquidity and capital structure after the completion of a maturity extension of most of its outstanding B-1 term loan and 50% debt repayment.

Table 99

Fairmount Santrol Inc./Issuer Credit Rating History	
Date	To
13-May-2016	B-/Negative/--
05-May-2016	SD/NM/--
25-Apr-2016	CCC+/Negative/--
21-Dec-2015	B/Stable/--
01-Mar-2012	BB-/Stable/--
23-Sep-2011	BB-/Watch Pos/--
16-Jul-2010	BB-/Stable/--

RGL Reservoir Management Inc.

- US\$75 million revolving bank loan due Aug. 14, 2019
- US\$301 million first-lien term bank loan due Aug. 16, 2021
- US\$140 million second-lien term bank loan due Aug. 15, 2022

On May 5, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Canada-based RGL Reservoir Management Inc. to 'SD' from 'CCC+'. The downgrade followed RGL's amendments to its senior secured debt facilities that materially changed the amount outstanding and the terms of the facility. We view the transaction as a distressed exchange because debtholders received less than what was promised on the original debt terms.

On June 9, 2016, S&P Global Ratings raised the long-term corporate credit rating on RGL to 'CCC+' from 'SD'. The outlook is negative. The rating action followed RGL's amendments to its senior secured debt facilities that materially changed the amount outstanding and the facility's terms.

Table 100**RGL Reservoir Management Inc./Issuer Credit Rating History**

Date	To
09-Jun-2016	CCC+/Negative/--
05-May-2016	SD/NM/--
26-Jun-2015	CCC+/Negative/--
20-May-2015	B/Watch Neg/--
25-Jul-2014	B/Stable/--

Claire's Stores Inc.

- US\$335 million 10.50% senior subordinates notes due June 1, 2017
- US\$320 million 7.75% senior notes due June 1, 2020
- US\$450 million 8.875% senior secured second lien notes due March 15, 2019
- US\$210 million 6.125% first-lien notes due March 15, 2020
- US\$1.125 billion 9.00% first-lien notes due March 15, 2019
- US\$115 million revolving credit facility bank loan due Sept. 20, 2017
- US\$115 million revolving credit facility bank loan due Sept. 20, 2017
- US\$625 million 9.00% first-lien notes due March 15, 2019
- US\$174.4 million 10.50% pay-in-kind notes due June 1, 2017

On Sept. 21, 2016, S&P Global Ratings lowered its corporate credit rating on Hoffman Estates-based specialty retailer Claire's Stores Inc. to 'SD' from 'CC'. The rating action followed the issuer's completion of the debt exchange transaction for its \$574 million of second-lien and senior unsecured debt for new term loans due 2021. As the holders received material discount to the par value, we viewed this transaction as distressed and expected the company's capital structure to remain unsustainable with liquidity and maturity risks.

On Oct. 4, 2016, S&P Global Ratings raised the corporate credit rating on Claire's Stores to 'CC' from 'SD'. The outlook is negative. The rating action followed our review of the issuer's capital structure, its liquidity position following the recent debt exchange. Per our assessment, using the exchange the issuer cancelled a portion of its notes and extended the debt maturities, resulting in \$24 million in annual cash interest savings.

Earlier, on May 6, 2016, S&P Global Ratings lowered the corporate credit rating on Claire's Stores to 'SD' from 'CCC'. The downgrade followed Claire's agreement with sponsor-related Apollo Global to exchange \$174 million of its senior subordinated notes due 2017. We consider this exchange, including the deferment of interest expense as tantamount to a default because it is a departure from the original terms of the debt agreement, under which interest expense will not be paid when due.

On May 11, 2016, S&P Global Ratings raised the corporate credit rating on Claire's Stores to 'CCC-' from 'SD'. The outlook is negative. The rating action followed our review of Claire's capital structure and its liquidity position after the company's partial bond exchange of its 10.5% senior secured notes due 2017.

Table 101**Claire's Stores Inc./Issuer Credit Rating History**

Date	To
04-Oct-2016	CC/Negative/--

Table 101**Claire's Stores Inc./Issuer Credit Rating History (cont.)**

Date	To
21-Sep-2016	SD/--/--
18-Aug-2016	CC/Watch Neg/--
11-May-2016	CCC-/Negative/--
06-May-2016	SD/NM/--
28-Apr-2015	CCC/Negative/--
06-Jun-2014	B-/Negative/--
04-Dec-2009	B-/Stable/--
02-May-2008	B-/Negative/--
03-May-2007	B/Negative/--

Atlas Iron Ltd.

- US\$135 million term loan B N/A due April 30, 2021
- US\$135 million term loan B-CAPEX first guaranteed senior secured due April 30, 2021

On May 9, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Australia-based Atlas Iron Ltd. to 'SD' from 'CC'. The rating action followed Atlas Iron's announcement that it completed its creditors' scheme of arrangement. Under this arrangement, Atlas Iron issued to its term loan B (TLB) lenders more than 6 billion of fully paid ordinary shares and more than 4 billion of options, in exchange for a reduction in its principal loan amount. We view the creditors' scheme of arrangement as being a distressed debt exchange because the creditors received less than what was promised on the original TLB.

On May 19, 2016, S&P Global Ratings raised the long-term corporate credit rating on Atlas Iron to 'CCC' from 'SD'. The rating action followed the completion of our review of Atlas Iron's operations and new capital structure post the implementation of a creditors' scheme of arrangement, which we considered a distressed exchange.

Table 102**Atlas Iron Ltd./Issuer Credit Rating History**

Date	To
19-May-2016	CCC/Developing/--
09-May-2016	SD/NM/--
23-Dec-2015	CC/Negative/--
30-Jun-2015	CCC+/Negative/--
07-Apr-2015	CCC/Watch Neg/--
28-Jan-2015	B-/Stable/--
03-Oct-2014	B/Stable/--
08-Nov-2012	B+/Stable/--

USJ Acucar e Alcool S/A

- US\$275 million 9.875% notes due Nov. 9, 2019

On May 10, 2016, S&P Global Ratings lowered its global-scale corporate credit rating on USJ Acucar e Alcool S/A

(USJ) to 'SD' from 'CC'. The downgrade followed the issuer's missed interest payment on May 9, 2016, on its unsecured bond due 2019, which is now under the grace period of 30 days to amend the payments. We consider the missed interest payment to be tantamount to a default at the issue level because we view the payment of interest during the grace period as highly unlikely under USJ's current capital structure.

On May 17, 2016, S&P Global Ratings raised its global scale corporate credit rating on USJ to 'CCC-' from 'SD'. The upgrade followed the acceptance of the exchange offer of 89.42% by the original bondholders on May 16, 2016, which had originally triggered our revision of the corporate credit rating to 'SD' and the ratings on the tendered notes to 'D'.

On July 27, 2016, S&P Global Ratings upgraded USJ to 'CCC+' from 'CCC-' on global scale and to 'brCCC+' from 'brCCC-' on national scale. The upgrade reflected the issuer's diminished liquidity pressures following the distressed exchange. The outlook is stable.

Table 103

USJ Acucar e Alcool S/A/Issuer Credit Rating History	
Date	To
27-Jul-2016	CCC+/Stable/--
17-May-2016	CCC-/Watch Pos/--
10-May-2016	SD/NM/--
16-Mar-2016	CC/Watch Neg/--
14-Jan-2016	CCC-/Negative/--
24-Sep-2015	B-/Negative/--
01-Jul-2015	B/Watch Neg/--
05-Dec-2014	B+/Negative/--
15-Jul-2014	BB-/Negative/--
24-Oct-2012	BB-/Stable/--

Denbury Resources Inc.

- US\$1.25 billion 5.50% senior notes due May 1, 2022
- US\$1.2 billion 4.625% senior subordinate notes due July 15, 2023
- US\$400 million 6.375% senior notes due Aug. 15, 2021
- US\$3.5 billion revolving bank loan due Dec. 9, 2019
- US\$1.05 billion revolving bank loan due Dec. 9, 2019
- US\$150 million 7.25% senior subordinate notes due Dec. 1, 2017
- US\$614.93 million 9.00% second-lien notes due May 15, 2021

On May 12, 2016, S&P Global Ratings lowered its corporate credit rating on Plano-based Denbury Resources Inc. to 'SD' from 'CC'. The downgrade followed Denbury's announcement that it closed a privately negotiated agreement to exchange a portion of its senior subordinated notes due 2021, 2022, and 2023 for new second-lien notes and new common shares at a meaningful discount to par. We view the exchange as distressed.

On May 23, 2016, S&P Global Ratings raised the corporate credit rating on Denbury Resources to 'CCC+' from 'SD'. The outlook is negative.

Table 104

Denbury Resources Inc./Issuer Credit Rating History

Date	To
24-May-2016	CCC+/Negative/--
12-May-2016	SD/NM/--
04-May-2016	CC/Negative/--
09-Feb-2016	B/Negative/--
23-Dec-2015	BB-/Negative/--
02-Oct-2015	BB-/Stable/--
16-Jan-2015	BB/Negative/--
22-Jan-2013	BB/Stable/--
25-Oct-2012	BB/Positive/--
21-Jun-2010	BB/Stable/--
26-Jan-2009	BB/Negative/--
04-Nov-2005	BB/Stable/--
11-Mar-2004	BB-/Positive/--
20-May-2002	BB-/Stable/--
08-Jun-2001	B+/Positive/--
03-Sep-1999	B+/Stable/--
27-Apr-1999	B/Positive/--
11-Aug-1998	B/Stable/--
27-Jan-1998	B+/Stable/--

Intelsat S.A.

- US\$1.275 billion 6.625% senior unsecured notes due Dec. 15, 2022
- US\$2 billion 5.50% senior guaranteed notes due Aug. 1, 2023
- US\$1.15 billion 7.50% guaranteed senior notes due April 1, 2021
- US\$2.2 billion 7.25% guaranteed notes due Oct. 15, 2020
- US\$1.5 billion 7.25% guaranteed senior notes due April 1, 2019
- US\$500 million term B-2 bank loan due July 12, 2017
- US\$450 million revolver bank loan due July 12, 2017
- US\$3.25 billion term loan B bank loan due June 30, 2019
- US\$1.33 billion 11.25% senior notes due June 15, 2016
- US\$1.25 billion senior notes due Dec. 31, 2024

On Sept. 26, 2016, S&P Global Ratings lowered its corporate credit rating on Luxembourg-based Intelsat S.A. to 'SD' from 'CC'. The downgrade followed the issuer closing a debt exchange for 6.625% senior notes due 2022. The combination of cash and new securities offered was expected to be less than the original par amount of the notes, and therefore, we treated this transaction as distressed.

Prior to this, on Aug. 30, 2016, S&P Global Ratings lowered the corporate credit rating on Intelsat to 'CC' from 'CCC', reflecting the launch of the distressed offer by the issuer.

On May 12, 2016, S&P Global Ratings lowered the corporate credit rating on Luxembourg-based Intelsat to 'SD' from 'CCC'. The downgrade reflected Intelsat's repurchase of approximately \$400 million in face value of Intelsat Jackson

2022 notes in a private secondary market transaction and approximately \$60 million through open-market purchases. The repurchase is equivalent to a distressed restructuring and tantamount to a default.

On Dec. 22, 2016, S&P Global Ratings lowered the issue-level ratings on the issuer's 6.75% senior notes due 2018, 7.75% senior notes due 2021, and 8.125% senior notes due 2023 to 'D' from 'CC'. The rating action was taken after the company announced that it repurchased a portion of these notes at a material discount to par.

Table 105

Intelsat S.A./Issuer Credit Rating History

Date	To
26-Sep-2016	SD/NM/--
30-Aug-2016	CC/Watch Neg/--
15-Jul-2016	CCC/Negative/--
12-May-2016	SD/NM/--
01-Mar-2016	CCC/Negative/--
22-Feb-2016	B/Watch Neg/--
23-Mar-2015	B/Stable/--
19-Feb-2015	B+/Watch Neg/--
10-Dec-2013	B+/Stable/--
21-Nov-2013	B/Watch Pos/--
15-Feb-2008	B/Stable/--
19-Jun-2007	B+/Watch Neg/--
09-Jun-2006	BB-/Stable/--
29-Aug-2005	BB-/Watch Neg/--
03-Feb-2005	BB-/Negative/--
21-Jan-2005	BB-/Stable/--
28-Apr-2004	BBB+/Watch Neg/--
08-Mar-2004	BBB+/Negative/--
29-Oct-2003	BBB+/Stable/--
16-Jul-2003	BBB+/Negative/--
07-Feb-2003	BBB+/Stable/--
11-Dec-2002	A-/Watch Neg/--
22-Aug-2002	A/Watch Neg/--
07-Nov-2001	A/Negative/--
21-Mar-2001	A/Stable/--

Chesapeake Energy Corp.

- €600 million 6.25% senior notes due Jan. 15, 2017
- US\$1 billion 6.125% senior notes due Feb. 15, 2021
- US\$1.1 billion 5.75% unsecured notes due March 15, 2023
- US\$1.1 billion 5.75% unsecured notes due March 15, 2023
- US\$1.3 billion 6.775% senior notes due March 15, 2019
- US\$1.38 billion 2.25% contingent convertible senior notes due Dec. 15, 2038
- US\$1.4 billion 6.625% senior notes due Aug. 15, 2020
- US\$1.4 billion 6.625% senior notes due Aug. 15, 2020

- US\$1.5 billion first-lien guaranteed senior secured term bank loan due Aug. 23, 2021
- US\$1.5 billion 4.875% senior notes due April 15, 2022
- US\$1.5 billion senior notes due April 15, 2019
- US\$1.5 billion variable-rate senior notes due April 15, 2019
- US\$1.65 billion 2.50% contingent notes convertible due May 15, 2037
- US\$2 billion term bank loan due Dec. 2, 2017
- US\$2.425 billion 8.00% second-lien notes due Dec. 15, 2022
- US\$4 billion first-lien guaranteed senior secured revolving bank loan due Dec. 15, 2019
- US\$4 billion revolving credit facility bank loan due Dec. 15, 2019
- US\$500 million 6.50% senior notes due Aug. 15, 2017
- US\$500 million 6.875% senior notes due Nov. 15, 2020
- US\$500 million senior notes due Aug. 15, 2017
- US\$600 million 6.25% senior notes due Jan. 15, 2018
- US\$600 million 6.875% senior notes due Aug. 15, 2018
- US\$690 million 2.75% contingent senior notes convertible due Nov. 15, 2035
- US\$700 million 5.375% unsecured notes due June 15, 2021
- US\$800 million 7.25% senior notes due Dec. 15, 2018

On Sept. 19, 2016, S&P Global Ratings lowered the corporate credit rating on Oklahoma City-based exploration and production company Chesapeake Energy Corp. to 'SD' from 'CC' following the early settlement of accepted nonconvertible senior notes tendered prior to the early tender date (Aug. 25, 2016), under its tender offer for nonconvertible senior notes that commenced on Aug. 15, 2016. We view the tender for the senior notes due 2020 and 2023 as a distressed transaction due to the material discount to par value that was received.

On Sept. 29, 2016, S&P Global Ratings raised its corporate credit rating on Chesapeake Energy to 'CCC+' from 'SD' following the company's announcement of a proposed offering of US\$850 million convertible notes due 2026 and completion of a tender for its senior unsecured notes. The upgrade of Chesapeake also reflected the company's improving liquidity and our expectation that its credit measures will strengthen over the next 12-18 months.

Prior to this, on June 9, 2016, S&P Global Ratings lowered the corporate credit rating on Chesapeake Energy to 'SD' from 'CCC'. The downgrade reflected our assessment that the debt-for-equity exchange on Chesapeake's senior notes was a distressed exchange based on the holders receiving less than the original promised amount, and our view that the company is holding an unsustainable capital structure and is facing a potential sharp liquidity contraction next year.

On May 13, 2016, S&P Global Ratings lowered the corporate credit rating on Chesapeake Energy to 'SD' from 'CCC'. The rating action followed the issuer exchanging portions of its debt maturing in 2017, 2018, 2019, and 2037 for common shares.

Table 106

Chesapeake Energy Corp./Issuer Credit Rating History

Date	To
06-Dec-2016	CCC+/Watch Pos/--
29-Sep-2016	CCC+/Negative/--
19-Sep-2016	SD/--/--

Table 106

Chesapeake Energy Corp./Issuer Credit Rating History (cont.)	
Date	To
15-Aug-2016	CC/Negative/--
24-Jun-2016	CCC/Negative/--
09-Jun-2016	SD/NM/--
19-May-2016	CCC/Negative/--
13-May-2016	SD/NM/--
09-Feb-2016	CCC/Negative/--
25-Jan-2016	CCC+/Negative/--
22-Dec-2015	B/Negative/--
02-Oct-2015	BB-/Negative/--
30-Apr-2015	BB+/Negative/--
16-Jan-2015	BB+/Stable/--
16-Oct-2014	BB+/Positive/--
16-May-2014	BB+/Stable/--
06-Feb-2014	BB-/Positive/--
26-Jul-2013	BB-/Stable/--
15-May-2012	BB-/Negative/--
26-Apr-2012	BB/Watch Neg/--
06-Feb-2012	BB+/Negative/--
08-Apr-2011	BB+/Stable/--
07-Feb-2011	BB/Watch Pos/--
12-Dec-2008	BB/Stable/--
09-Jul-2008	BB/Watch Pos/--
08-Dec-2006	BB/Positive/--
27-Sep-2005	BB/Stable/--
20-May-2004	BB-/Positive/--
10-Jul-2003	BB-/Stable/--
25-Feb-2003	B+/Watch Pos/--
18-Jan-2001	B+/Positive/--
05-Jul-2000	B/Watch Pos/--
15-Mar-2000	B/Stable/--
01-Nov-1999	B/Negative/--
07-Dec-1998	B/Watch Neg/--
14-Sep-1998	B/Watch Dev/--
07-Jul-1998	B+/Watch Dev/--
10-Apr-1998	B+/Stable/--
06-Mar-1998	BB-/Watch Neg/--
11-Jul-1997	BB-/Stable/--
30-Jun-1997	BB/Watch Neg/--
24-Dec-1996	BB/Stable/--
29-Oct-1996	B+/Watch Pos/--

Table 106**Chesapeake Energy Corp./Issuer Credit Rating History (cont.)**

Date	To
20-Mar-1996	B+/Positive/--
15-May-1995	B/Positive/--

Permian Resources LLC

- US\$515 million notes due May 1, 2022
- US\$560 million first-lien notes due Dec. 31, 2020
- US\$650 million 7.125% senior unsecured notes due Nov. 1, 2020

On May 13, 2016, S&P Global Ratings revised its corporate credit rating on Oklahoma City-based oil and gas exploration and production company Permian Resources LLC to 'SD' from 'CCC+'. The downgrade followed the issuer's disclosure that since Dec 31, 2015, it repurchased \$203 million in par value of its exchangeable junior subordinated notes due 2022 for \$21.5 million in cash through open market transactions. We view these well below-par repurchases as distressed exchanges, given our belief that there was a realistic possibility of default over the next one to two years prior to the transactions.

On May 25, 2016, S&P Global Ratings raised the corporate credit rating on Permian Resources to 'CCC' from 'SD'. The upgrade followed a reassessment of Permian Resources' capital structure following the repurchase of about 40% of the original \$515 million par value of its exchangeable junior subordinated notes due 2022 for about 10 cents on the dollar.

Table 107**Permian Resources LLC/Issuer Credit Rating History**

Date	To
25-May-2016	CCC/Negative/--
13-May-2016	SD/NM/--
02-Oct-2015	CCC+/Negative/--
04-May-2015	B-/Negative/--
30-Oct-2014	B/Negative/--
09-Jul-2014	B/Stable/--

Breitbart Energy Partners

- US\$850 million 7.875% senior notes due April 15, 2022
- US\$305 million 8.625% senior notes due Oct. 15, 2020
- US\$2.5 billion credit facility bank loan due Nov. 19, 2019

On May 16, 2016, S&P Global Ratings lowered its corporate credit ratings on Los Angeles-based Breitbart Energy Partners to 'D' from 'CC'. The 'D' rating reflected Breitbart's announcement that it filed for Chapter 11 in bankruptcy court on May 15, 2016, after the expiration of the 30-day-payment grace period the partnership entered into as it elected to defer the April 15, 2016, interest payments on its 7.875% senior notes due April 2022 and its 8.625% senior notes due October 2020.

On June 20, 2016, S&P Global Ratings withdrew the corporate credit rating on the issuer.

Table 108**Breitbart Energy Partners/Issuer Credit Rating History**

Date	To
20-Jun-2016	NR/--/--
16-May-2016	D/--/--
14-Apr-2016	CC/Negative/--
09-Feb-2016	B-/Negative/--
17-Sep-2015	B/Negative/--
31-Mar-2015	B+/Negative/--
16-Jan-2015	B+/Watch Neg/--
24-Nov-2014	B+/Negative/--
29-Jul-2014	B+/Watch Neg/--
24-Sep-2010	B+/Stable/--

SandRidge Energy Inc.

- US\$1.25 billion 8.75% second-lien notes due June 1, 2020
- US\$450 million 8.75% senior unsecured notes due Jan. 15, 2020
- US\$750 million 8.125% notes due Oct. 15, 2022
- US\$1.15 billion 7.50% senior notes due March 15, 2021
- US\$825 million 7.50% senior notes due Feb. 15, 2023
- US\$158.4 million 8.125% convertible due Oct. 16, 2022
- US\$116.6 million 7.50% convertible due Feb. 16, 2023
- US\$1 billion revolving credit facility bank loan due March 2, 2020

On May 16, 2016, S&P Global Ratings lowered its corporate credit rating on Oklahoma City-based SandRidge Energy Inc. to 'D' from 'CCC-'. The rating action followed SandRidge's announcement that it filed voluntary petitions for restructuring under Chapter 11 of the U.S. Bankruptcy Code.

On June 27, 2016, S&P Global Ratings withdrew the corporate credit rating on the issuer.

In September 2016, the bankruptcy court approved the reorganization plan submitted by SandRidge Energy Inc. In the following month, the issuer implemented the debt-for-equity plan, handing over the bulk of the reorganized debtor's equity to second-lien claimholders owed \$1.38 billion.

Prior to this, on Feb. 18, 2016, we lowered our corporate credit rating on SandRidge Energy to 'D' from 'SD'. The rating action was taken after the issuer deferred the interest payments on its 7.5% senior notes due 2023 and 7.5% senior convertible notes due 2023.

Table 109**SandRidge Energy Inc./Issuer Credit Rating History**

Date	To
27-Jun-2016	NR/--/--
16-May-2016	D/--/--
17-Mar-2016	CCC-/Negative/--
18-Feb-2016	D/--/--

Table 109**SandRidge Energy Inc./Issuer Credit Rating History (cont.)**

Date	To
08-Oct-2015	SD/NM/--
20-Aug-2015	CCC+/Negative/--
14-Aug-2015	SD/NM/--
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/--

Stone Energy Corp.

- US\$300 million 1.75% senior notes convertible due March 1, 2017
- US\$700 million notes due Nov. 15, 2022
- US\$900 billion revolving bank loan due July 1, 2019
- US\$775 million 7.50% senior notes due Nov. 15, 2022
- US\$375 million 8.625% senior notes due Feb. 1, 2017

On Nov. 15, 2016, S&P Global Ratings lowered its corporate credit rating on Lafayette-based oil and gas exploration and production company Stone Energy Corp. to 'D' from 'CC'. The downgrade reflected our expectation that Stone Energy would elect to file for Chapter 11 bankruptcy protection rather than make the November interest payment on its 7.5% senior unsecured notes due 2022.

In December 2016, Stone Energy filed for Chapter 11 in the U.S. bankruptcy court after it amended the terms of its restructuring support agreement with noteholders. As per the amended deal, the noteholders will receive \$100 million of cash, 96% of the common stock in the reorganized company, and \$225 million of new 7.5% second-lien notes due 2022.

Subsequently, S&P Global Ratings removed the ratings on the issuer on Dec. 19, 2016.

Prior to this, on May 17, 2016, S&P Global Ratings lowered the corporate credit rating on Stone Energy to 'D' from 'CCC-'. The 'D' rating reflected our expectation that Stone Energy would elect to file for Chapter 11 bankruptcy protection rather than make the May interest payment on its 7.5% senior unsecured notes due 2022. On June 14, 2016, S&P Global Ratings raised the corporate credit rating on Stone Energy to 'CCC-' from 'D'.

Table 110

Stone Energy Corp./Issuer Credit Rating History

Date	To
19-Dec-2016	NR/--/--
15-Nov-2016	D/--/--
24-Oct-2016	CC/Negative/--
14-Jun-2016	CCC-/Negative/--
17-May-2016	D/--/--
11-Mar-2016	CCC-/Negative/--
09-Feb-2016	CCC+/Negative/--
07-Dec-2009	B/Stable/--
05-Mar-2009	B/Negative/--
26-Jan-2009	B/Stable/--
31-Mar-2008	B+/Stable/--
09-Oct-2007	B+/Negative/--
28-Jun-2006	B+/Watch Neg/--
25-May-2006	B+/Watch Dev/--
25-Apr-2006	B+/Watch Pos/--
06-Dec-2005	B+/Watch Neg/--
07-Oct-2005	BB-/Watch Neg/--
09-Nov-2004	BB/Negative/--
04-Dec-2001	BB/Stable/--
31-Oct-2000	BB-/Watch Pos/--
17-Sep-1999	BB-/Positive/--
09-Jul-1999	B+/Watch Pos/--
04-May-1999	B+/Stable/--
07-Dec-1998	B+/Negative/--
12-Sep-1997	B+/Stable/--

Seventy Seven Energy Inc.

- US\$500 million 6.50% senior notes due July 15, 2022
- US\$650 million 6.625% notes due Nov. 15, 2019
- US\$500 million term bank loan due June 25, 2021
- US\$100 million second-lien guaranteed secured term bank loan due June 25, 2021

On May 18, 2016, S&P Global Ratings lowered its corporate credit rating on Oklahoma City-based onshore oilfield services Seventy Seven Energy Inc. (SSE) to 'D' from 'CC'. The downgrade followed SSE's announcement that it elected not to make the May 15, 2016, interest payment on the 6.625% senior unsecured notes due 2019. We expected the company to commence Chapter 11 proceedings before the end of the 30-day grace period, and we did not envision additional interest payments on the remaining debt.

On Aug. 11, 2016, S&P Global Ratings raised the corporate credit rating on SSE to 'CCC+' from 'D'. The outlook is developing. The upgrade reflected the issuer's new capital structure post reorganization that converted approximately \$1.1 billion of senior unsecured debt and structurally subordinated debt to equity.

Table 111**Seventy Seven Energy Inc./Issuer Credit Rating History**

Date	To
11-Aug-2016	CCC+/Developing/--
18-May-2016	D/--/--
19-Apr-2016	CC/Negative/--
14-Jan-2016	CCC-/Negative/--
06-Nov-2015	CCC+/Stable/--
07-Apr-2015	B/Negative/--
22-Dec-2014	B+/Negative/--
23-May-2014	BB-/Stable/--
25-Feb-2014	BB-/Watch Dev/--
26-Jul-2013	BB-/Stable/--
15-May-2012	BB-/Negative/--
26-Apr-2012	BB/Watch Neg/--
06-Feb-2012	BB+/Negative/--
19-Oct-2011	BB+/Stable/--

Tervita Corp.

- US\$650 million 8.00% notes due Nov. 15, 2018
- US\$335 million 10.875% senior unsecured notes due Feb. 15, 2018
- CAD\$200 million 9.00% notes due Nov. 15, 2018
- US\$290 million 9.75% notes due Nov. 1, 2019
- US\$350 million revolving first-lien guaranteed senior secured bank loan due Feb. 14, 2018
- US\$750 million term loan B bank loan due May 15, 2018
- US\$307.56 million 11.875% notes due Nov. 15, 2018

On May 18, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Canada-based integrated environmental service company Tervita Corp. to 'D' from 'B-'. The downgrade reflected the issuer's decision to skip an interest payment on its 11.875% senior subordinated notes due Nov. 15, 2018, and our belief that the company would not make this payment before the 30-day grace period ended. We expected the issuer would likely restructure its debt under bankruptcy protection or a similar scenario.

On Dec. 8, 2016, S&P Global Ratings raised the long-term corporate credit rating on Tervita Corp. to 'B-' from 'D'. The rating action followed the company securing court approval for its debt-restructuring plan.

Table 112**Tervita Corp./Issuer Credit Rating History**

Date	To
08-Dec-2016	B-/Stable/--
18-May-2016	D/--/--
23-Jan-2013	B-/Stable/--
04-Oct-2012	B/Negative/--
30-Jul-2010	B/Stable/--
28-May-2009	B/Negative/--

Table 112**Tervita Corp./Issuer Credit Rating History (cont.)**

Date	To
10-Feb-2009	B+/Negative/--
22-Oct-2007	B+/Stable/--

Arendal, S. de R.L. de C.V.

- US\$100 million 10.50% med-term notes due May 23, 2016
- US\$11.25 million 10.50% unsecured notes due Dec. 29, 2016

On May 23, 2016, S&P Global Ratings lowered its corporate credit rating on Mexico-based engineering and construction company Arendal, S. de R.L. de C.V. to 'D' from 'CC'. The downgrade followed the issuer's inability to make the \$100 million senior unsecured notes principal payment maturing May 23, 2016. Consequently, the issuer will not be paying the principal of the senior unsecured notes on a timely basis, as originally stated.

On Oct. 25, 2016, S&P Global Ratings affirmed the 'D' long-term corporate credit rating and issue-level rating on Arendal S. de R.L. de C.V. and its '4' recovery rating. We subsequently withdrew the ratings at the company's request. At the time of the withdrawal, Arendal was still in a process to negotiate with its debtholders to reach a definitive agreement on debt restructuring.

Table 113**Arendal S. de R.L. de C.V./Issuer Credit Rating History**

Date	To
25-Oct-2016	NR/--/--
23-May-2016	D/--/--
10-May-2016	CC/Watch Neg/--
17-Feb-2016	CCC-/Negative/--
15-May-2014	B-/Stable/--
30-Nov-2012	B/Stable/--

Camposol S.A.

- US\$200 million 9.875% notes due Feb. 2, 2017

On May 25, 2016, S&P Global Ratings lowered its corporate credit rating on Peru-based agribusiness company Camposol S.A. to 'SD' from 'CC'. The downgrade followed the issuer's announcement that it would exchange \$147.5 million of its \$200 million outstanding senior unsecured notes for new 10.5% senior secured notes due 2021. We view this transaction as a distressed exchange because the new securities' maturity extends beyond the original notes', and the company conducted the offer with an unfavorable liquidity position.

On June 6, 2016, S&P Global Ratings raised the corporate credit rating on Camposol to 'CCC' from 'SD' and placed the ratings on CreditWatch developing. The upgrade followed our review of the completion of a debt exchange that we deemed distressed, in which Camposol exchanged 73.75% (\$147.5 million) of its senior secured notes originally due 2017 for new five-year senior secured notes due 2021.

On Aug. 4, 2016, S&P Global Ratings lowered the corporate credit rating and issue-level ratings on Camposol to 'CCC-' from 'CCC'.

Table 114

Camposol S.A./Issuer Credit Rating History

Date	To
04-Aug-2016	CCC-/Negative/--
06-Jun-2016	CCC/Watch Dev/--
25-May-2016	SD/NM/--
11-Apr-2016	CC/Negative/--
17-Feb-2016	CCC/Negative/--
18-Nov-2015	B-/Negative/--
15-Apr-2014	B/Stable/--
30-Apr-2013	B/Negative/--
18-Jan-2012	B/Stable/--

New World Resources N.V.

- €300 million 8.00% pay-in-kind toggle notes due April 7, 2020
- €500 million 7.875% bonds due May 1, 2018
- €275 million 7.875% notes due Jan. 15, 2021
- €150 million 4.00% pay-in-kind toggle notes due Oct. 7, 2020
- €20 million 0.00% senior unsecured notes due Oct. 7, 2020
- €15 million 0.00% senior unsecured notes due Oct. 7, 2020
- €49.86 million unsecured term bank loan due June 30, 2022

On May 26, 2016, S&P Global Ratings lowered its long-term corporate credit rating on U.K.-based coal miner New World Resources N.V. (NWR) to 'D' from 'CCC-'. The downgrade followed NWR's decision to file for the insolvency with the Czech court, which most likely resulted in liquidation of the entire NWR group.

On May 26, 2016, S&P Global Ratings subsequently withdrew its ratings on the issuer.

Table 115

New World Resources N.V./Issuer Credit Rating History

Date	To
26-May-2016	NR/--/--
26-May-2016	D/--/--
15-Mar-2016	CCC-/Negative/--
10-Nov-2015	CCC/Negative/--
17-Oct-2014	CCC+/Negative/--
01-Aug-2014	SD/NM/--
05-Jun-2014	CC/Negative/--
29-Jan-2014	CCC/Negative/--
12-Jul-2013	B-/Negative/--
23-May-2013	B/Stable/--
28-Feb-2013	B+/Stable/--

Table 115**New World Resources N.V./Issuer Credit Rating History (cont.)**

Date	To
31-Aug-2012	BB-/Negative/--
23-Jun-2010	BB-/Stable/--
21-Aug-2009	BB-/Negative/--
03-May-2007	BB-/Stable/--

The Gymboree Corp.

- US\$400 million 9.125% senior unsecured notes due Dec. 1, 2018
- US\$820 million term bank loan due Feb. 23, 2018
- US\$50 million first-lien guaranteed senior secured term bank loan in due Sept. 24, 2020

On May 27, 2016, S&P Global Ratings lowered its corporate credit rating on San Francisco-based apparel retailer The Gymboree Corp. to 'SD' from 'CC' following the issuer's completion of the tender offer for the 9.125% senior unsecured notes at face value below par, which is viewed as a distressed repurchase and tantamount to default given that noteholders received less than the original promise.

On June 2, 2016, S&P Global Ratings raised its corporate credit rating on the issuer to 'CCC+' from 'SD'. The outlook is negative. The rating action followed our review of the issuer's liquidity position and capital structure. The issuer managed to reduce its debt by roughly US\$117 million through public and private debt-repurchase transactions.

Table 116**The Gymboree Corp./Issuer Credit Rating History**

Date	To
02-Jun-2016	CCC+/Negative/--
27-May-2016	SD/NM/--
27-Apr-2016	CC/Watch Neg/--
21-Dec-2015	CCC+/Negative/--
12-May-2014	CCC+/Developing/--
09-Nov-2012	B-/Stable/--
17-Jun-2011	B/Stable/--
09-Feb-2011	B+/Stable/--

Linc USA GP

- US\$265 million 12.50% notes due Oct. 31, 2017

On May 29, 2016, Texas-based oil and gas exploration and production issuer Linc USA GP filed for Chapter 11 under U.S. bankruptcy code.

On Sept. 30, 2013, S&P Global Ratings withdrew its ratings on the issuer due to lack of sufficient information to perform surveillance of our published ratings.

Table 117

Linc USA GP/Issuer Credit Rating History

Date	To
30-Sep-2013	NR/--/--
21-Sep-2012	B-/Negative/--

Rolta India Ltd.

- US\$373 million 8.875% notes due July 24, 2019
- US\$200 million 10.75% notes due May 16, 2018
- US\$50 million first-lien senior secured term bank loan
- US\$35 million first-lien senior secured term bank loan Feb. 21, 2019
- US\$23 million first-lien senior secured term bank loan
- US\$15.5 million first-lien guaranteed senior secured term bank loan
- US\$50 million first-lien senior secured term bank loan
- US\$135 million first-lien senior secured term bank loan

On May 31, 2016, S&P Global Ratings lowered its long-term corporate credit rating on India-based Rolta India Ltd. to 'SD' from 'CCC-'. The downgrade followed the issuer's missed scheduled interest payments on its credit facilities by more than 30 days.

On June 20, 2016, S&P Global Ratings lowered its long-term corporate credit rating on the issuer to 'D' from 'SD' because it failed to pay the interest on its credit facilities.

Table 118

Rolta India Ltd./Issuer Credit Rating History

Date	To
20-Jun-2016	D/--/--
31-May-2016	SD/NM/--
29-May-2016	CCC-/Watch Neg/--
18-Mar-2016	B+/Stable/--
30-Apr-2013	BB-/Stable/--

Bill Barrett Corp.

- US\$400 million 7.625% senior notes due Oct. 1, 2019
- US\$400 million 7.00% senior notes due Oct. 15, 2022
- US\$172.5 million 5.00% senior notes convertible due March 15, 2028
- US\$250 million 9.875% senior notes due July 15, 2016
- US\$900 million revolving first-lien guaranteed senior secured bank loan due April 9, 2020

On June 6, 2016, S&P Global Ratings lowered its corporate credit rating on Denver-based oil and gas exploration and production issuer Bill Barrett Corp. to 'SD' from 'B-'. The downgrade reflected our assessment on the issuer regarding its debt-for-equity exchange on its 7.625% senior unsecured notes that we consider a distressed exchange, since the bondholders received less than the face value.

On June 9, 2016, S&P Global Ratings raised its corporate credit rating on the issuer to 'B-' from 'SD' because it completed the below-par-debt-for-equity exchange on a portion of its credit facility due 2019. The rating action also

reflected our expectation that the company would not undertake any other distressed exchanges in the following 12 months.

Table 119

Bill Barrett Corp./Issuer Credit Rating History

Date	To
09-Jun-2016	B-/Negative/--
06-Jun-2016	SD/NM/--
09-Feb-2016	B-/Stable/--
02-Oct-2015	B/Stable/--
30-Sep-2013	B+/Stable/--
08-May-2012	BB-/Negative/--
24-Jun-2009	BB-/Stable/--

Hercules Offshore Inc.

- US\$450 million term bank loan due May 6, 2020
- US\$400 million 8.75% senior notes due July 15, 2021
- US\$300 million 7.50% senior notes due Oct. 1, 2021
- US\$300 million 7.125% senior notes due April 1, 2017
- US\$300 million 6.75% senior notes due April 1, 2022
- US\$200 million 10.25% senior notes due April 1, 2019

On June 6, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based Hercules Offshore Inc. to 'D' from 'CC'. The downgrade reflected the issuer's election to file a voluntary prepackaged Chapter 11 bankruptcy to facilitate an orderly asset sale.

On July 8, 2016, S&P Global Ratings withdrew its ratings on the issuer.

Table 120

Hercules Offshore Inc./Issuer Credit Rating History

Date	To
08-Jul-2016	NR/--/--
06-Jun-2016	D/--/--
31-May-2016	CC/Negative/--
25-Apr-2016	CCC-/Negative/--
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/--

Table 120**Hercules Offshore Inc./Issuer Credit Rating History (cont.)**

Date	To
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/--

Far-Eastern Shipping Co. PLC

- US\$500 million 8.00% notes due May 2, 2018
- US\$300 million 8.75% notes due May 2, 2020
- RUB5,000 billion 14.00% senior unsecured notes due Nov. 28, 2017
- RUB5,002 billion 16.00% senior unsecured notes due Nov. 28, 2017

On June 7, 2016, S&P Global Ratings lowered its corporate credit rating on Russia-based integrated logistics, rail, and port operator Far-Eastern Shipping Co. to 'SD' from 'CC'. The downgrade followed the issuer's missed interest payment due May 4, 2016, on its outstanding senior unsecured eurobonds even after completing its 30-day grace period.

Table 121**Far-Eastern Shipping Co. PLC/Issuer Credit Rating History**

Date	To
07-Jun-2016	SD/NM/--
04-May-2016	CC/Watch Neg/--
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/--

Cenveo Inc.

- US\$450 million 11.50% notes due May 15, 2017
- US\$540 million 6.00% first-lien notes due Aug. 1, 2019
- US\$250 million 8.50% second-lien notes due Sept. 15, 2022
- US\$175 million 10.50% senior notes due Aug. 15, 2016
- US\$86.25 million 7.0% senior notes due Aug. 15, 2016

On June 10, 2016, S&P Global Ratings lowered its corporate credit rating on Stamford-based diversified printing company Cenveo Inc. to 'SD' from 'CC'. The downgrade reflected the issuer's announcement to exchange its US\$150 million 11.5% senior unsecured notes due 2017 for US\$106 million new 6% senior unsecured notes due May 2024 plus warrants. We viewed the transaction as distressed because the investors received less principal and interest than what was promised initially.

On July 18, 2016, S&P Global Ratings raised its corporate credit rating on Cenveo to 'CCC+' from 'SD'. The upgrade reflected the issuer's completion of a distressed exchange agreement, which further reduced its annual interest cost by approximately US\$18 million.

Table 122

Cenveo Inc./Issuer Credit Rating History	
Date	To
18-Jul-2016	CCC+/Negative/--
10-Jun-2016	SD/NM/--
11-May-2016	CC/Negative/--
07-Dec-2015	CCC+/Negative/--
19-Feb-2014	B-/Stable/--
24-Jan-2014	B-/Watch Neg/--
21-Nov-2013	B-/Negative/--
28-Jun-2013	B-/Stable/--
19-Dec-2012	B/Negative/--
02-Oct-2012	B/Watch Neg/--
26-Mar-2012	B/Negative/--
01-Dec-2010	B/Stable/--
20-Mar-2009	B+/Negative/--
13-Oct-2008	BB-/Negative/--
04-Dec-2007	BB-/Stable/--
14-Feb-2007	B+/Positive/--
27-Dec-2006	B+/Watch Neg/--
02-Nov-2006	B+/Stable/--
09-Aug-2006	B+/Watch Neg/--
25-May-2006	B+/Positive/--
27-Jan-2006	B+/Negative/--
16-Aug-2005	B+/Watch Neg/--
18-Apr-2005	B+/Watch Dev/--
10-Dec-2004	B+/Stable/--
09-Jul-2002	BB-/Negative/--
14-Jan-2000	BB/Negative/--
20-Jul-1998	BB/Stable/--
24-Nov-1997	BB-/Positive/--
04-Nov-1997	BB-/Watch Pos/--
02-Oct-1997	BB-/Positive/--

Fieldwood Energy LLC

- US\$900 million first-lien term bank loan due Sept. 30, 2018
- US\$2.143 billion second-lien term bank loan due Sept. 30, 2020
- US\$1.375 billion revolver bank loan due Sept. 30, 2018
- US\$425 million second-lien term secured bank loan due Sept. 30, 2020
- US\$200 million first-lien guaranteed senior secured bank loan due Sept. 28, 2018

On June 13, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based oil and gas exploration and production company Fieldwood Energy LLC to 'SD' from 'CC'. The rating action followed the issuer's disclosure that its equity sponsor, Riverstone Holdings Ltd., purchased over US\$640 million in par value of its second-lien term loan at a steep discount. We viewed this transaction as distressed because it's well below the par repurchase, which suggested the issuer's risk of conventional default.

On June 16, 2016, S&P Global Ratings raised its corporate credit rating on the issuer to 'CCC' from 'SD'. The outlook is negative. The rating action reflected the issuer's completion of several transactions.

Table 123

Fieldwood Energy LLC/Issuer Credit Rating History	
Date	To
16-Jun-2016	CCC/Negative/--
13-Jun-2016	SD/NM/--
06-May-2016	CC/Negative/--
09-Feb-2016	CCC/Negative/--
02-Oct-2015	B/Negative/--
10-Sep-2013	B/Stable/--

Harvest Operations Corp.

- US\$500 million 6.875% notes due Oct. 1, 2017
- US\$630 million 2.125% notes due May 14, 2018
- US\$1 billion revolving first-lien guaranteed senior secured bank loan due April 30, 2017

On June 14, 2016, S&P Global Ratings lowered its long-term rating on Canada-based Harvest Operations Corp. to 'SD' from 'CC'. The downgrade reflected the issuer's completion of a debt exchange offer for the existing holders of its 6.875% senior unsecured notes due October 2017.

On June 22, 2016, S&P Global Ratings raised its corporate credit rating to 'CCC+' from 'SD' based on our 'ccc' stand-alone credit profile.

Table 124

Harvest Operations Corp./Issuer Credit Rating History	
Date	To
22-Jun-2016	CCC+/Negative/--
14-Jun-2016	SD/NM/--
16-May-2016	CC/Negative/--
16-Oct-2015	CCC+/Negative/--
01-Dec-2014	B/Stable/--
12-Dec-2013	B+/Negative/--
26-Nov-2013	BB-/Watch Neg/--
31-Aug-2012	BB-/Negative/--
20-May-2010	BB-/Stable/--

Barmenco Holdings Pty Ltd.

- US\$361 million 9.00% notes due June 1, 2018
- AUD19 million revolving syndicated credit facility bank loan due Feb. 28, 2018

On June 15, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Australia-based underground hard-rock contract miner Barmenco Holdings Pty Ltd. to 'SD' from 'B-'. The downgrade followed the issuer's note repurchase at below par value. This is viewed as similar to de-facto restructuring and selective default, per S&P Global Ratings' criteria.

On June 16, 2016, S&P Global Ratings raised its corporate credit rating to 'B-' from 'SD' based on its review of the issuer's operations and capital structure after its note repurchases.

On Oct. 18, 2016, S&P Global Ratings revised its outlook on Barmenco to positive from stable, which reflected our view of further improvement in Barmenco's credit metrics through material reduction in adjusted debt, as well as the company's good track record of managing its contract book with growth in earnings.

Table 125

Barmenco Holdings Pty Ltd./Issuer Credit Rating History	
Date	To
18-Oct-2016	B-/Positive/--
16-Jun-2016	B-/Stable/--
15-Jun-2016	SD/NM/--
01-Oct-2015	B-/Stable/--
17-Jul-2014	B-/Negative/--
30-May-2013	B-/Stable/--

Lightstream Resources Ltd.

- US\$900 million 8.625% notes due Feb. 1, 2020
- US\$650 million 9.875% second-lien notes due June 15, 2019
- US\$1.150 billion revolving first-lien guaranteed senior secured bank loan due June 2, 2017

On June 16, 2016, S&P Global Ratings lowered its corporate credit rating on Canada-based Lightstream Resources Ltd. to 'D' from 'CCC-'. The downgrade followed the issuer's decision not to make its interest payment on its 9.875% senior secured notes due June 15, 2019.

On Aug. 19, 2016, S&P Global Ratings affirmed its 'D' long-term corporate credit ratings on Lightstream Resources Ltd. and subsequently withdrew the ratings. At the time of the withdrawal, Lightstream was still negotiating with its debtholders to reach a definitive agreement on debt restructuring.

Table 126

Lightstream Resources Ltd./Issuer Credit Rating History	
Date	To
19-Aug-2016	NR/--/--
16-Jun-2016	D/--/--
04-May-2016	CCC-/Negative/--
16-Oct-2015	B-/Negative/--

Table 126**Lightstream Resources Ltd./Issuer Credit Rating History (cont.)**

Date	To
10-Jul-2015	B-/Stable/--
09-Jul-2015	SD/NM/--
09-Jan-2015	B/Negative/--
01-Oct-2013	B+/Stable/--
24-Aug-2012	B/Positive/--
18-Jan-2012	B/Stable/--

Maxus Energy Corp.

On June 17, 2016, Dallas-based oil and gas exploration and production issuer Maxus Energy Corp. filed for Chapter 11 under the U.S. Bankruptcy Code.

On May 3, 1999, S&P Global Ratings withdrew its ratings on the issuer.

Table 127**Maxus Energy Corp./Issuer Credit Rating History**

Date	To
03-May-1999	NR/--/--
22-Apr-1997	BBB-/Stable/--
03-Apr-1997	BB/Stable/--
04-Nov-1996	BB-/Stable/--
08-Mar-1995	BB-/Watch Neg/--
08-Mar-1995	BB-/Stable/--
08-Mar-1995	BB-/Positive/--
03-Mar-1995	BB-/NM/--
01-Mar-1995	BB-/Positive/--
03-Jun-1994	BB-/Negative/--
12-Jul-1991	BB-/Watch Neg/--
26-May-1989	BB+/Negative/--
31-Oct-1988	BB+/Stable/--
12-Jan-1988	BBB-/Negative/--
24-Apr-1987	BBB/--/--
15-Aug-1986	BBB+/-/--
22-Jun-1979	A/--/--
07-Nov-1975	A/--/--

Oi S.A.

- BRL1.1 billion 9.75% bonds due Sept. 15, 2016
- US\$1.787 billion 5.50% notes due Oct. 23, 2020
- US\$1.5 billion 5.75% notes due Feb. 10, 2022
- €750 million 5.875% medium-term notes due April 17, 2018
- €750 million 5.00% bonds due Nov. 4, 2019

- €750 million 5.125% senior unsecured notes due Dec. 15, 2017
- €600 million 5.625% notes due June 22, 2021
- €500 million 4.50% bonds due June 16, 2025
- €500 million 4.375% medium-term notes due March 24, 2017
- €50 million medium-term notes senior 22 due Jan. 30, 2019
- €250 million 5.24% medium-term loan notes due Nov. 6, 2017
- €1 billion 4.625% medium-term notes due May 8, 2020
- €400 million 6.25% medium-term notes due July 26, 2016
- \$US750 million 9.5% senior unsecured notes due April 23, 2019
- US\$1 billion revolving unsecured bank loan due Nov. 1, 2016
- US\$200 million delayed draw term first-lien senior secured bank loan due Dec. 21, 2021
- US\$500 million delayed draw term loan unsecured bank loan due Aug. 1, 2019
- US\$103 million delayed draw term unsecured bank loan due Feb. 1, 2020
- US\$200 million delayed draw term unsecured bank loan due May 31, 2022
- US\$360 million delayed draw term guaranteed unsecured bank loan due Sept. 18, 2017
- US\$300 million delayed draw term unsecured bank loan due Dec. 31, 2018
- US\$100 million term unsecured bank loan due July 31, 2018
- US\$750 million 9.50% notes due April 23, 2019
- BRL369 million delayed draw term unsecured bank loan due Feb. 28, 2019
- BRL4.3 billion term unsecured bank loan due May 31, 2018
- €100 million 2.07% delayed draw term first senior secured bank loan due Sept. 20, 2018
- €600 million 5.625% delayed draw term senior secured bank loan due June 22, 2021
- BRL 2.35 billion senior unsecured notes due March 28, 2019
- BRL1.5 billion senior unsecured notes due March 28, 2019
- US\$257 million term loan bank due March 15, 2024

On June 21, 2016, S&P Global Ratings lowered its long term corporate credit rating on Brazil-based Oi S.A. to 'D' from 'CCC-'. The rating actions followed Oi's announcement that it filed a request for judicial reorganization in an effort to restructure its debt obligations.

Table 128

Oi S.A./Issuer Credit Rating History

Date	To
21-Jun-2016	D/--/--
26-Apr-2016	CCC-/Negative/--
10-Mar-2016	CCC-/Negative/--
26-Feb-2016	B+/Watch Neg/--
15-Feb-2016	BB-/Negative/--
02-Apr-2015	BB+/Negative/--
18-Jul-2014	BB+/Stable/--
04-Jul-2014	BBB-/Watch Neg/--
23-May-2014	BBB-/Negative/--
02-Oct-2013	BBB-/Watch Neg/--
06-Sep-2011	BBB-/Stable/--

Consolidated Minerals Ltd.

- US\$400 million 8.00% notes due May 15, 2020

On June 22, 2016, S&P Global Ratings lowered its corporate credit rating on Jersey-based manganese ore miner Consolidated Minerals Ltd. to 'SD' from 'CC'. The rating action followed the issuer's nonpayment of the coupon on its €400 million senior secured notes due 2020 within its 30-day grace period that ended on June 15, 2016.

On Oct. 5, 2016, S&P Global Ratings raised its long-term corporate credit rating on Consolidated Minerals to 'CCC+' from 'SD'. The rating action followed the company's announcement that it received its noteholders' consent to defer part of the 2016 and 2017 coupon payments on the notes due 2020.

On Nov. 22, 2016, S&P Global Ratings placed its 'CCC+' long-term corporate credit rating on Consolidated Minerals on CreditWatch with developing implications. The CreditWatch reflected the possibility of the rating changing upward or downward after finalization of the pending acquisition, factoring in potential group support from Tian Yuan Manganese Ltd. and/or the new owner making changes to Consolidated Minerals' strategy or financial policy.

Table 129

Consolidated Minerals Ltd./Issuer Credit Rating History	
Date	To
22-Nov-2016	CCC+/Watch Dev/--
05-Oct-2016	CCC+/Negative/--
22-Jun-2016	SD/NM/--
16-May-2016	CC/Negative/--
14-Mar-2016	CCC-/Negative/--
27-Jan-2016	CCC/Negative/--
04-Dec-2015	CCC+/Negative/--
26-Jun-2015	B-/Negative/--
22-Sep-2014	B/Negative/--
10-Feb-2014	B+/Stable/--
10-Sep-2013	B/Stable/--
28-Dec-2012	B-/Negative/--
07-May-2012	B/Negative/--
12-Dec-2011	B+/Negative/--
12-Apr-2011	BB-/Stable/--

Hammons (John Q.) Hotels L.P.

On June 26, 2016, Springfield-based issuer Hammons (John Q.) Hotels L.P. filed for Chapter 11 under the U.S. bankruptcy code.

On Oct. 24, 2005, S&P Global Ratings withdrew its ratings on the issuer.

Table 130

Hammons (John Q.) Hotels L.P./Issuer Credit Rating History	
Date	To
24-Oct-2005	NR/--/--

Table 130**Hammons (John Q.) Hotels L.P./Issuer Credit Rating History (cont.)**

Date	To
18-Oct-2004	B/Watch Dev/--
08-Jan-2002	B/Stable/--
21-Sep-2001	B+/Watch Neg/--
05-Oct-1998	B+/Stable/--
14-Aug-1998	BB-/Watch Neg/--
27-Jan-1994	BB-/Stable/--

Triangle USA Petroleum Corp.

- US\$450 million 6.75% senior unsecured notes due July 15, 2022
- US\$1 billion revolving first-lien guaranteed senior secured bank loan due Oct. 16, 2018

On July 1, 2016, S&P Global Ratings lowered its corporate credit rating on Denver-based oil and gas exploration and production company Triangle USA Petroleum Corp. to 'D' from 'CCC' following the company's announcement that it reached an agreement in principle with its noteholders to enter into a prearranged Chapter 11 bankruptcy. Under the terms of the agreement, the company's notes will be converted into equity and a new money rights offering for US\$100 million. We view the result as a general default given that Triangle will fail to pay its unsecured note obligations.

Table 131**Triangle USA Petroleum Corp./Issuer Credit Rating History**

Date	To
08-Aug-2016	NR/--/--
01-Jul-2016	D/--/--
09-Feb-2016	CCC/Negative/--
02-Oct-2015	B-/Negative/--
09-Jul-2014	B/Stable/--

C&J Energy Services Ltd.

- US\$400 million revolver bank loan due March 24, 2020
- US\$485 million B2 term bank loan due March 24, 2022
- US\$575 million B1 term bank loan due March 24, 2020

On July 1, 2016, S&P Global Ratings lowered its corporate credit rating on Bermuda-based oilfield services provider company C&J Energy Services Ltd. to 'D' from 'CCC'. The downgrade reflected the company's announcement that it entered into a second forbearance agreement due to missed interest payments and covenant breaches on its credit facilities, including the US\$284 million principal outstanding on its revolving credit facility maturing in 2020, US\$569 million principal outstanding on its B-1 term loan due 2020, and US\$480 million principal outstanding on its B-2 term loan due 2022. The forbearance agreement required the company to enter into a restructuring support agreement with lenders by July 8, 2016, otherwise the forbearance was subjected to termination.

The company filed for bankruptcy on Sept. 30, 2016.

On Jan. 6, 2017, C&J Energy Services Inc. emerged from Chapter 11 bankruptcy, reducing its debt by about \$1.4 billion.

Table 132

C&J Energy Services Ltd./Issuer Credit Rating History

Date	To
16-Aug-2016	NR/--/--
01-Jul-2016	D/--/--
14-Apr-2016	CCC-/Negative/--
16-Nov-2015	B-/Negative/--
11-Jun-2015	B+/Stable/--
14-Nov-2014	BB-/Stable/--

Gol Linhas Aereas Inteligentes S.A.

- US\$300 million 9.25% notes due July 20, 2020
- US\$325 million notes due Jan. 24, 2022
- US\$300 million bank loan due Aug. 8, 2020
- US\$200 million 10.75% senior notes due Feb. 12, 2023
- US\$300 million 6.5% guaranteed senior unsecured term bank loan due Aug. 31, 2020
- US\$200 million 8.75% senior notes
- US\$221.3 million 7.5% senior notes due April 3, 2017
- US\$225 million 7.5% senior unsecured notes due April 3, 2017

On July 4, 2016, S&P Global Ratings lowered its corporate credit rating on Brazil-based airline company Gol Linhas Aéreas Inteligentes S.A. (GOL) to 'SD' from 'CC'. The downgrade reflected our assessment that the exchange of part of GOL's senior unsecured notes that matured in 2017, 2020, 2022, and 2023, and its perpetual notes are considered a distressed exchange, or tantamount to a default on the obligations. The noteholders that agreed with the exchange will receive materially less than originally promised because the exchange includes an average haircut to the notes of about 50% of face value, part of it to be paid in cash and part with new bonds maturing in 2018, 2021, and 2028.

On July 6, 2016, S&P Global Ratings raised its global-scale ratings on GOL to 'CCC' from 'SD' following the debt exchange completion in which the company offered considerably less value on its obligations than originally promised. The negative outlook reflected our view that GOL was vulnerable to external factors such as exchange rates, debt refinancing, and flights demand, which could make the capital structure unsustainable and limit GOL's ability to meet obligations beyond a 12-month horizon.

Table 133

Gol Linhas Aereas Inteligentes S.A./Issuer Credit Rating History

Date	To
06-Jul-2016	CCC/Negative/--
04-Jul-2016	SD/NM/--
04-May-2016	CC/Watch Neg/--
28-Mar-2016	CCC-/Negative/--
05-Feb-2016	B-/Watch Neg/--
24-Aug-2015	B-/Stable/--

Table 133**Gol Linhas Aereas Inteligentes S.A./Issuer Credit Rating History (cont.)**

Date	To
11-Jun-2015	B/Negative/--
26-Aug-2014	B/Stable/--
05-Jul-2013	B/Negative/--
28-Mar-2013	B/Watch Neg/--
04-Sep-2012	B/Stable/--
15-Aug-2012	B+/Watch Neg/--
04-Apr-2012	B+/Negative/--
13-Sep-2011	BB-/Negative/--
19-May-2010	BB-/Stable/--

MD America Energy LLC

- US\$525 million term bank loan due Aug. 5, 2019

On July 5, 2016, S&P Global Ratings lowered its corporate credit rating on Fort Worth-based oil and gas exploration and production company MD America Energy LLC (MDAE) to 'SD' from 'CCC'. The downgrade reflected MDAE's announcement that it was redeeming its term loan due 2019 at 94% to par with proceeds from an equity infusion from its parent company, Meidu Energy Corp. We viewed the transaction as distressed because debtholders would receive less than par and because we believed that MDAE's leverage was unsustainable given our expectation of deteriorating cash-flow generation.

On July 14, 2016, S&P Global Ratings raised its corporate credit rating on MDAE to 'B-' from 'SD' following the early redemption of its term loan due 2019 with proceeds from equity contributions from its parent company. The stable outlook reflected our expectation that the company would maintain adequate liquidity and financial measures while growing production and reserves.

Table 134**MD America Energy LLC/Issuer Credit Rating History**

Date	To
14-Jul-2016	B-/Stable/--
05-Jul-2016	SD/NM/--
09-Feb-2016	CCC/Developing/--
08-Jul-2014	B-/Stable/--

FTS International Inc.

- US\$550 million term bank loan due April 16, 2021
- US\$500 million 6.25% secured notes due May 1, 2022
- US\$350 million notes due June 15, 2020

On July 6, 2016, S&P Global Ratings lowered its corporate credit rating on Cisco-based oilfield services provider company FTS International Inc. (FTSI) to 'SD' from 'CC' following the company's announcement that it completed a repurchase of a portion of its senior secured notes due 2022 and its term loan due 2021 at below par. We viewed the

transaction as distressed because investors received less than what was promised on the original securities and because we believed that FTSI's capital structure was unsustainable given the severely depressed industry conditions.

On July 20, 2016, S&P Global Ratings raised its corporate rating on FTSI to 'CCC+' from 'SD' on completion of the company's repurchase of a portion of its outstanding debt at a discount to par. The negative outlook reflected our expectation that FTSI's liquidity position would deteriorate over the next 12-18 months given our forecast that EBITDA would be insufficient to cover interest charges and maintenance capital spending.

Table 135

FTS International Inc./Issuer Credit Rating History	
Date	To
20-Jul-2016	CCC+/Negative/--
06-Jul-2016	SD/NM/--
07-Jun-2016	CC/Negative/--
18-May-2016	CCC+/Negative/--
28-Sep-2015	B-/Negative/--
27-May-2015	B-/Stable/--
22-Dec-2014	B/Negative/--
23-Sep-2014	B/Stable/--
03-Apr-2014	B-/Positive/--
04-Nov-2013	B-/Stable/--

Goodman Networks Inc.

- US\$325 million 12.125% senior secured notes due July 1, 2018
- US\$50 million revolving first-lien guaranteed senior secured bank due June 23, 2017

On July 7, 2016, S&P Global Ratings lowered its corporate credit rating on Frisco-based telecom infrastructure services provider company Goodman Networks Inc. to 'SD' from 'CCC+'. The rating action followed Goodman's election to not make its interest payment on its senior secured notes and to enter into a 30-day grace period while it continues to negotiate a debt restructuring with its lenders.

Table 136

Goodman Networks Inc./Issuer Credit Rating History	
Date	To
07-Jul-2016	SD/NM/--
22-Dec-2015	CCC+/Negative/--
01-Jun-2015	B-/Stable/--
12-May-2014	B/Negative/--
25-Oct-2012	B/Stable/--
19-Apr-2012	B+/Watch Neg/--
08-Jun-2011	B+/Stable/--

Transtar Holding Co.

- US\$50 million revolver bank loan due Oct. 9, 2017
- US\$370 million adjusted rate first-lien term bank loan due Oct. 9, 2018

- US\$170 million second-lien term bank loan due Oct. 9, 2019
- US\$135 million second-lien term bank loan due Dec. 21, 2017

On July 15, 2016, S&P Global Ratings lowered all of its ratings on Walton Hills-based aftermarket transmission parts distributor company Transtar Holding Co., including our 'CCC+' corporate credit rating, to 'D'. Transtar missed the last interest payment on its term loan, and we expected that it would enter into a comprehensive debt restructuring support agreement, which may involve capital infusions from its existing lenders and sponsors, following the expiration of its forbearance agreement.

On Nov. 22, 2016, S&P Global Ratings withdrew its ratings on the company.

On Nov. 28, 2016, Transtar Holding Co. filed for bankruptcy protection and entered into a restructuring agreement.

Table 137

Transtar Holding Co./Issuer Credit Rating History

Date	To
22-Nov-2016	NR/--/--
15-Jul-2016	D/--/--
18-Dec-2015	CCC+/Negative/--
30-Mar-2015	B/Stable/--
10-Feb-2014	B/Negative/--
19-Sep-2012	B/Stable/--
28-Jan-2011	B+/Stable/--

Atlas Resource Partners L.P.

- US\$275 million 7.75% senior unsecured notes due Jan. 15, 2021
- US\$250 million second-lien guaranteed senior secured term bank loan due Feb. 23, 2020

On July 18, 2016, S&P Global Ratings lowered its corporate credit ratings on Pittsburgh-based oil and gas exploration and production company Atlas Resource Partners L.P. to 'D' from 'CCC-' . The downgrade reflected our view of Atlas' decision to defer its July 15, 2016, interest payments on its 7.75% senior unsecured notes due 2021. The company had a 30-day grace period after the interest payment date to make the payment before an event of default occurs.

However, the company continued to negotiate with bondholders during this time. In addition, the company entered into a forbearance agreement until July 27, 2016, with lenders of its revolving credit facility deferring the first of four equal installment payments required to cure the current US\$143.7 million deficiency. We believed that it was highly unlikely that the company would make the interest payment on the 7.75% notes within the 30-day grace period and the installment payment on its borrowing base deficiency, and we believed a general default was the most likely outcome.

Table 138

Atlas Resource Partners L.P./Issuer Credit Rating History

Date	To
09-Sep-2016	NR/--/--
18-Jul-2016	D/--/--
17-May-2016	CCC-/Negative/--

Table 138**Atlas Resource Partners L.P./Issuer Credit Rating History (cont.)**

Date	To
25-Jan-2016	B-/Negative/--
02-Oct-2015	B-/Stable/--
29-Jan-2015	B/Negative/--
10-Jan-2013	B/Stable/--

Forbes Energy Services Ltd.

- US\$280 million 9.00% senior notes due June 15, 2019

On July 19, 2016, S&P Global Ratings lowered its corporate credit rating on Alice-based oilfield services company Forbes Energy Services Ltd. to 'D' from 'CCC-' because the company missed its semiannual interest payment on its 9% senior notes. The company entered into forbearance agreements with holders of its 9% senior notes and its credit facility and was continuing to negotiate with creditors on a potential restructuring. Despite negotiations with creditors, we did not expect the company would make the interest payment in the following 30 days and believed restructuring under a Chapter 11 bankruptcy was the most likely outcome.

Table 139**Forbes Energy Services Ltd./Issuer Credit Rating History**

Date	To
19-Jul-2016	D/--/--
01-Jun-2016	CCC-/Negative/--
04-Nov-2015	CCC+/Stable/--
30-Mar-2012	B/Stable/--
16-Sep-2011	B-/Positive/--
18-May-2011	CCC+/Watch Pos/--

International Shipholding Corp.

- US\$38.2 million revolving first-lien senior secured bank loan due July 20, 2017
- US\$45 million first-lien senior secured term bank loan due July 20, 2017

On Aug. 1, 2016, Mobile-based international and domestic maritime transportation services provider International Shipholding Corp. defaulted followed its Chapter 11 filing.

Earlier, on Nov. 19, 2007, S&P Global Ratings withdrew its 'B+' corporate credit rating on International Shipholding Corp. The rating was withdrawn at the company's request.

Table 140**International Shipholding Corp./Issuer Credit Rating History**

Date	To
19-Nov-2007	NR/--/--
02-Aug-2004	B+/Stable/--
21-Feb-2002	BB-/Negative/--
30-Jul-2001	BB+/Watch Neg/--

Table 140**International Shipholding Corp./Issuer Credit Rating History (cont.)**

Date	To
25-May-1993	BB+/Stable/--

Usina Caete S.A. - NE

- BRL70 million secured notes due July 29, 2020
- BRL115 million secured notes due July 29, 2020
- BRL185 million variable-rate debenture due July 31, 2020
- US\$32.5 million variable-rate export prepayment credit facility notes due July 31, 2020

On Aug. 1, 2016, S&P Global Ratings lowered its global-scale corporate credit rating on Brazil-based sugarcane processor company Usina Caeté S.A.- NE to 'D' from 'CCC-' because the company missed its interest and principal payment on July 29, 2016, on its secured debenture term loan and other secured debt, accounting for nearly all of the company's debt. We did not expect the company to make the payments in the following five business days or other stated grace period, but rather to go through a debt restructuring.

Table 141**Usina Caete S.A./Issuer Credit Rating History**

Date	To
01-Aug-2016	D/--/--
27-Jun-2016	CCC-/WatchNeg/--
19-Jun-2015	B-/Negative/--
25-Nov-2014	B+/Negative/--
20-Jun-2013	BB-/Stable/--

PTC Group Holdings Corp.

On Aug. 3, 2016, S&P Global Ratings lowered its corporate credit rating on Wexford-based steel tubing producer company PTC Group Holdings Corp. to 'D' from 'CCC' as the company missed interest payments on each of its two term loans (US\$70 million B-1 due December 2016 and US\$50 million B-2 due December 2018) in March and June. The company also failed to meet its scheduled amortization payments in those periods. Although the interest payments were ultimately made, this occurred after the allowable grace period and as part of a restructuring that included waivers for missed and upcoming amortization payments.

On Aug. 5, 2016, S&P Global Ratings raised its corporate credit rating on PTC Group to 'CCC+' from 'D'. The upgrade reflected PTC's credit agreement amendments, which improve overall liquidity by lowering cash interest and lengthening the company's debt maturity profile. Also, we withdrew our ratings on the company on the same day.

Table 142**PTC Group Holdings Corp./Issuer Credit Rating History**

Date	To
05-Aug-2016	NR/--/--
05-Aug-2016	CCC+/Stable/--
03-Aug-2016	D/--/--

Table 142**PTC Group Holdings Corp./Issuer Credit Rating History (cont.)**

Date	To
13-Nov-2015	CCC/Negative/--
04-Jun-2015	B-/Watch Neg/--
26-Dec-2012	B/Stable/--

CNG Holdings Inc.

- US\$400 million 9.375% notes due May 15, 2020

On Aug. 5, 2016, S&P Global Ratings lowered its issuer credit ratings on Cincinnati-based CNG Holdings Inc. to 'SD' from 'B-'. The rating action followed the company's debt repurchase at prices that we believe were executed substantially below par. CNG facilitated the repurchase by entering into a new first-priority credit facility containing a US\$25 million revolving line of credit and a \$100 million term loan, which was partially used to repurchase US\$68.9 million in face value of outstanding senior secured notes. We view the debt repurchases, which we believe were conducted at prices substantially below par value, as tantamount to default.

On Aug. 9, 2016, S&P Global Ratings raised its long-term issuer credit rating on CNG Holdings to 'CCC' from 'SD', reflecting the credit profile after CNG's debt repurchase transaction. The negative outlook reflected our expectation that CNG's credit profile will remain highly vulnerable to significant regulatory reform and weak operational performance at Sears Holdings Corp.

Table 143**CNG Holdings Inc./Issuer Credit Rating History**

Date	To
09-Aug-2016	CCC/Negative/--
05-Aug-2016	SD/NM/--
27-May-2015	B-/Negative/--
11-Jul-2014	B-/Stable/--
25-Jan-2010	B/Stable/--

LTR Holdco Inc.

On Aug. 9, 2016, S&P Global Ratings lowered its corporate credit rating on Texas-based oilfield services company LTR Holdco Inc. to 'D' from 'CCC+'. The downgrade reflected LTR Holdco's decision to skip its interest payment on its 8.125% senior secured notes due 2019 and our view that it would not make this payment within the 30-day grace period. The company entered into a restructuring support agreement with over 80% of its noteholders and 90% of its equityholders, under which it would exchange the US\$330 million of existing senior secured notes for 100% of the equity of a new parent entity (to be called New LTR Holdings) and \$30 million in new 10% senior secured PIK notes. In addition, the existing common stock, senior preferred stock, and convertible preferred stock would be cancelled. The company also had plans to file under Chapter 11 by the end of August.

On Sept. 2, 2016, Light Tower Rentals (LTR Holdco Inc. subsidiary) and three affiliated debtors filed for Chapter 11 protection with the U.S. bankruptcy court.

On Sept. 12, 2016, S&P Global Ratings withdrew its ratings on the company.

Table 144

LTR Holdco/Issuer Credit Rating History

Date	To
12-Sep-2016	NR/--/--
09-Aug-2016	D/--/--
20-May-2016	CCC+/Negative/--
18-Nov-2015	B-/Stable/--
09-Jul-2014	B/Stable/--

Vanguard Natural Resources LLC

- US\$550 million 7.875% senior notes due April 1, 2020

On Aug. 11, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based oil and gas exploration and production company Vanguard Natural Resources LLC to 'SD' from 'CC' following completion of the exchange of its 7.875% senior unsecured notes due April 1, 2020, with certain noteholders for 7% secured second-lien notes due 2023 at less than par. We view this as a distressed exchange because existing holders received less than the original promised amount, the interest rate on the new securities is lower than the original yield, and the new securities' maturity extends beyond the original.

On Aug. 18, 2016, S&P Global Ratings raised the corporate credit rating on Vanguard Natural Resources LLC to 'CCC-' from 'SD' following completion of the exchange of its senior unsecured notes. The negative outlook reflected the potential for a liquidity shortfall if the company's borrowing base is lowered or if it breaches financial covenants and the facility becomes due.

Table 145

Vanguard Natural Resources LLC/Issuer Credit Rating History

Date	To
18-Aug-2016	CCC-/Negative/--
11-Aug-2016	SD/NM/--
12-Jan-2016	CC/Negative/--
08-Jan-2016	B-/Negative/--
03-Nov-2015	B+/Stable/--
22-May-2015	B+/Watch Pos/--
20-Nov-2012	B+/Stable/--
26-Mar-2012	B/Stable/--

Bonanza Creek Energy Inc.

- US\$500 million 6.75% notes due April 15, 2021
- US\$300 million 5.75% senior notes due Feb. 1, 2023
- US\$1 billion revolving first-lien guaranteed senior secured bank loan due Sept. 15, 2017

On Oct. 17, 2016, S&P Global Ratings lowered its corporate credit rating on Denver-based oil and gas exploration and production company Bonanza Creek Energy Inc. to 'D' from 'CC' following the company's announcement that it

elected to not make the Oct. 15, 2016, interest payment on its US\$500 million 6.75% senior unsecured notes due 2021. More recently, on Jan. 4, 2017, the company filed for Chapter 11 to execute a debt-for-equity swap.

Earlier, on Aug. 18, 2016, S&P Global Ratings lowered its corporate credit rating on Bonanza Creek Energy to 'D' from 'CCC'. The downgrade followed Bonanza Creek's announcement that it elected not to make the Aug. 1, 2016, interest payment on the 5.75% senior unsecured notes due 2023. We did not expect the company to make this interest payment before the end of the 30-day grace period, and we did not envision additional interest payments on the remaining debt.

On Sept. 8, 2016, S&P Global Ratings raised its corporate credit rating on Bonanza Creek Energy to 'CC' from 'D'. The upgrade followed the company's announcement that it made the interest payment on its unsecured notes due 2023 within the 30-day grace period.

Table 146

Bonanza Creek Energy Inc./Issuer Credit Rating History	
Date	To
17-Oct-2016	D/--/--
08-Sep-2016	CC/Negative/--
18-Aug-2016	D/--/--
11-Mar-2016	CCC/Negative/--
09-Feb-2016	B-/Negative/--
03-Apr-2013	B/Stable/--

Sterling Mid-Holdings Ltd.

On Aug. 18, 2016, S&P Global Ratings lowered its issuer credit rating on Jersey-based Sterling Mid-Holdings Ltd. to 'SD' from 'CC'. The rating action followed Sterling's completion of its exchange offer for DFC Finance Corp.'s existing senior secured notes. The company completed the exchange offer for its wholly owned subsidiary, DFC Finance Corp.'s US\$800 million 10.5% senior secured notes due in June 2020 for 12% senior secured PIK toggle notes due in June 2020. The new notes will bear interest at a rate of 12% per year through June 15, 2018 (the PIK interest termination date), and at a rate of 10.50% per year thereafter. We viewed this as a distressed debt exchange because Sterling Mid-Holdings intended to slow the timing of its interest payments, which we viewed as a de facto restructuring.

On Aug. 23, 2016, S&P Global Ratings raised its long-term issuer credit rating on Sterling Mid-Holdings to 'CCC+' from 'SD' after the company completed its exchange offer for 93.1%, or US\$745 million, of its outstanding 10.5% senior notes due 2020 for 12.0% PIK toggle notes due 2020. Following the exchange offer, the company will have about US\$55 million of senior notes outstanding. The negative outlook reflects our expectation of Sterling's weak operating performance and vulnerability to regulatory reforms.

Table 147

Sterling Mid-Holdings Ltd./Issuer Credit Rating History	
Date	To
23-Aug-2016	CCC+/Negative/--
18-Aug-2016	SD/NM/--

Table 147**Sterling Mid-Holdings Ltd./Issuer Credit Rating History (cont.)**

Date	To
29-Jun-2016	CC/Watch Neg/--
27-May-2016	CCC/Negative/--
18-Nov-2015	B-/Negative/--
11-Dec-2014	B-/Stable/--
06-Jun-2014	B/Negative/--

Sidewinder Drilling Inc.

- US\$250 million 9.75% senior unsecured notes due Nov. 15, 2019

On Aug. 22, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based onshore driller company Sidewinder Drilling Inc. to 'SD' from 'CC' following completion of an exchange of a portion of its 9.75% senior unsecured notes due Nov. 15, 2019, with certain noteholders for new 9.75% third-lien notes due Nov. 15, 2019, at 83% of par. We viewed this as a distressed exchange because existing holders received less than the original promised amount and there was a realistic probability of default prior to the exchange.

Table 148**Sidewinder Drilling Inc./Issuer Credit Rating History**

Date	To
23-Aug-2016	SD/NM/--
09-Feb-2016	CC/Negative/--
16-Mar-2015	CCC+/Negative/--
26-Feb-2014	B-/Negative/--
19-Oct-2012	B-/Stable/--

California Resources Corp.

US\$2.25 billion 6.00% senior notes due Nov. 15, 2024

- US\$1.75 billion 5.50% senior notes due Sept. 15, 2021
- US\$1 billion 5.00% senior notes due Jan. 15, 2020
- US\$1.6 billion revolver bank loan due Nov. 24, 2019
- US\$1 billion term bank loan due Nov. 24, 2019
- US\$2.25 billion 8.00% second-lien bank loan due Dec. 15, 2022
- US\$1.4 billion revolving first-lien guaranteed senior secured bank loan due Oct. 1, 2019
- US\$1 billion first-lien guaranteed term A senior secured bank loan due Oct. 1, 2019

On Aug. 24, 2016, S&P Global Ratings lowered the corporate credit rating on Los Angeles-based oil and gas exploration and production company California Resources Corp. (CRC) to 'SD' from 'CC' following the close of its tender offer for its senior unsecured and second-lien debt. We viewed the tenders on the senior unsecured notes as a selective default because investors received less than what was promised on the original securities, about 53% of par on average. In addition, in our view, the offer was distressed, rather than purely opportunistic, given the challenging operating environment and the need for CRC to reduce its burdensome debt level to be in line with expectations for

longer-term crude oil and natural gas prices.

On Sept. 9, 2016, S&P Global Ratings raised its corporate credit rating on CRC to 'CCC+' from 'SD' to reflect our reassessment of CRC's credit profile following the tender for its senior unsecured notes. The negative outlook reflected that CRC still has very high debt leverage and declining cushion to the financial covenants under its credit facility, particularly in 2018.

Table 149

California Resources Corp./Issuer Credit Rating History

Date	To
09-Sep-2016	CCC+/Negative/--
24-Aug-2016	SD/NM/--
02-Aug-2016	CC/Negative/--
14-Jan-2016	CCC+/Negative/--
28-Sep-2015	BB-/Negative/--
15-Jul-2015	BB+/Negative/--
05-Sep-2014	BB+/Stable/--

American Gilsonite Co.

- US\$270 million 11.50% senior secured notes due Sept. 1, 2017

On Sept. 2, 2016, S&P Global Ratings lowered its corporate credit rating on Bonanza-based untaite producer company American Gilsonite Co. to 'SD' from 'CCC-' because the company did not make the interest payment on its 11.5% senior secured notes and engaged its creditors in potential restructuring options. The company entered into a 30-day grace period while it continued to negotiate a debt restructuring with its lenders. We believed that there was a high likelihood that the company would not make the interest payment in full within the 30-day grace period permitted under the indenture agreement.

On Oct. 25, 2016, S&P Global Ratings lowered its corporate credit rating on American Gilsonite to 'D' from 'SD' after the company filed voluntary petitions for reorganization under Chapter 11 of the U.S. Bankruptcy Code. The company entered into a support agreement with its equity sponsor and a group of investors holding in excess of 65% of the company's senior secured notes. The agreement calls for supporting noteholders to provide \$30 million of debtor-in-possession (DIP) financing in support of the company's reorganization efforts and to exchange their notes for equity of the reorganized entity and new subordinated debt.

On Dec. 12, 2016, S&P Global Ratings withdrew its rating on the company.

Table 150

American Gilsonite Co./Issuer Credit Rating History

Date	To
12-Dec-2016	NR/--/--
25-Oct-2016	D/--/--
02-Sep-2016	SD/NM/--
31-Aug-2016	CCC-/Negative/--
09-Jun-2016	CCC/Negative/--

Table 150**American Gilsonite Co./Issuer Credit Rating History (cont.)**

Date	To
19-Jan-2016	CCC+/Negative/--
30-Aug-2013	B-/Stable/--
15-Aug-2012	B/Stable/--

Key Energy Services Inc.

- US\$315 million term bank loan due June 1, 2020
- US\$675 million 6.75% senior notes due March 1, 2021

On Sept. 8, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based onshore oilfield services company Key Energy Services Inc. to 'D' from 'CC'. The downgrade reflected the company's decision to defer its Sept. 1, 2016, interest payment on its 6.75% senior notes due 2021. The company had a 30-day grace period after the interest payment date to make the payment before an event of default occurs. We did not expect Key to make the interest payment during the 30-day grace period, resulting in a default. In addition, an event of default related to the senior notes would trigger an event of default under Key's asset-based lending and term loan facilities. The company entered into a plan support agreement on Aug. 24 to restructure under a prepackaged Chapter 11 deal in the U.S. bankruptcy court.

On Oct. 25, 2016, S&P Global Ratings withdrew all its ratings on the company. This came a day after Key filed for Chapter 11 in the U.S. bankruptcy court.

Table 151**Key Energy Services Inc./Issuer Credit Rating History**

Date	To
25-Oct-2016	NR/--/--
08-Sep-2016	D/--/--
15-Jun-2016	CC/Negative/--
16-May-2016	CCC-/Negative/--
25-Sep-2015	CCC+/Stable/--
07-Apr-2015	B/Negative/--
25-Nov-2014	B+/Negative/--
25-Sep-2014	BB-/Negative/--
27-Sep-2013	BB-/Stable/--
28-Sep-2012	BB-/Positive/--
16-Aug-2010	BB-/Stable/--
06-Jul-2009	BB-/Negative/--
10-Feb-2009	BB/Negative/--
26-Nov-2008	BB/Stable/--
03-Jul-2008	BB-/Positive/--
05-Nov-2007	B+/Stable/--
06-Dec-2005	NR/--/--
07-Jul-2005	B-/Watch Dev/--

Table 151**Key Energy Services Inc./Issuer Credit Rating History (cont.)**

Date	To
29-Mar-2005	B-/Watch Neg/--
20-Jul-2004	B/Watch Dev/--
08-Jun-2004	B/Watch Neg/--
30-Mar-2004	B+/Watch Neg/--
26-Jul-2002	BB/Stable/--
15-May-2002	BB-/Watch Pos/--
26-Feb-2001	BB-/Stable/--
11-Sep-2000	B+/Positive/--
11-May-1999	B+/Stable/--
08-Mar-1999	B+/Negative/--
11-Jan-1999	B+/Stable/--

W&T Offshore Inc.

- US\$900 million 8.50% senior notes due June 15, 2019
- US\$300 million 8.50% senior notes due June 15, 2019
- US\$300 million 9.00% second-lien term bank loan due May 15, 2020
- US\$75 million first-lien guaranteed term 1.5 senior secured bank loan due Nov. 15, 2019

On Sept. 9, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based oil and gas exploration and production company W&T Offshore Inc. to 'SD' from 'CC'. The rating action reflected our assessment that W&T Offshore's exchange on its 8.5% senior unsecured notes due 2019 was a distressed exchange based on the holders receiving less than par value, and our view that the company faced a realistic possibility of conventional default prior to the exchange. The company announced that it has exchanged about US\$710.2 million of its US\$900 million 8.5% senior unsecured notes due 2019 for a combination of equity and new debt at below par. We viewed this as a distressed exchange because investors received less than par and our view that the company faced a realistic possibility of default prior to the exchange.

On Sept. 13, 2016, S&P Global Ratings raised the corporate credit rating on W&T Offshore to 'CCC' from 'SD' following the exchange of its 8.5% senior unsecured notes due 2019, and our reassessment of the company's capital structure and credit profile. The negative outlook reflected the possibility that we could lower the rating if we believed the company would be unable to meet its financial or other obligations.

Table 152**W&T Offshore Inc./Issuer Credit Rating History**

Date	To
13-Sep-2016	CCC/Negative/--
09-Sep-2016	SD/NM/--
13-Jun-2016	CC/Negative/--
26-Feb-2016	CCC-/Negative/--
09-Feb-2016	B-/Negative/--
16-Jan-2009	B/Stable/--

Table 152**W&T Offshore Inc./Issuer Credit Rating History (cont.)**

Date	To
01-Jun-2007	B/Positive/--
21-Apr-2006	B/Stable/--

Modular Space Corp.

- US\$375 million 10.25% second-lien notes due Jan. 1, 2019

On Sept. 9, 2016, S&P Global Ratings lowered its corporate credit rating on Berwyn-based provider of temporary and permanent modular buildings and storage containers Modular Space Corp. to 'SD' from 'CCC' following the company's announcement on Aug. 29, 2016, that it elected to defer its interest payment due Aug. 1, 2016, on its senior secured notes and had not cured the default within the 30-day grace period in the notes' indenture.

On Nov. 22, 2016, S&P Global Ratings withdrew all of its ratings on Modular Space.

On Dec. 21, 2016, the company filed for Chapter 11 protection in the U.S. and Canada to pursue a plan to amend its \$1 billion long-term debt.

Table 153**Modular Space Corp./Issuer Credit Rating History**

Date	To
22-Nov-2016	NR/--/--
09-Sep-2016	SD/NM/--
15-Aug-2016	CCC/Watch Neg/--
16-Mar-2016	B-/Watch Dev/--
27-Jan-2016	B-/Watch Neg/--
06-Feb-2015	B-/Negative/--
18-Feb-2014	B-/Stable/--

Golfsmith International Holdings L.P.

- CAD125 million 10.50% notes due July 24, 2018
- CAD15 million first guaranteed senior secured term bank loan due July 24, 2017

On Sept. 16, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Canada-based specialty retailer of golf and tennis equipment, apparel, footwear, and related accessories Golfsmith International Holdings L.P. to 'D' from 'CCC'. The rating action followed Golfsmith's announcement that it commenced a Chapter 11 case in Delaware and that its Golf Town Canada Inc. subsidiary had commenced creditor protection proceedings under the Companies' Creditors Arrangement Act in Ontario. Golfsmith entered into a support agreement with a group of investors that hold more than 40% of the company's rated C\$125 million senior secured second-lien debt, in which it was proposed that the debt be canceled and replaced with US\$35 million of new secured notes. Golfsmith International Holdings announced bankruptcy proceedings in the U.S. and Canada.

On Oct. 26, 2016, S&P Global Ratings withdrew all of its ratings on Golfsmith International Holdings.

Table 154**Golfsmith International Holdings LP/Issuer Credit Rating History**

Date	To
26-Oct-2016	NR/--/--
16-Sep-2016	D/--/--
15-Sep-2015	CCC/Negative/--
25-Sep-2014	B-/Negative/--
06-Jul-2012	B/Stable/--

Basic Energy Services Inc.

- US\$475 million 7.75% senior notes due Feb. 15, 2019
- US\$300 million 7.75% senior unsecured notes due Oct. 15, 2022
- US\$165 million 13.50% term bank loan due Feb. 26, 2021
- US\$100 million first-lien guaranteed senior secured revolving bank loan due Nov. 26, 2019
- US\$15million 13.5% first-lien guaranteed senior secured delayed draw term DD bank loan due Feb. 26, 2021

On Sept. 16, 2016, S&P Global Ratings lowered its corporate credit ratings on Fort Worth-based oilfield services company Basic Energy Services Inc. to 'D' from 'CC'. The downgrade reflected Basic's failure to make the coupon payment due under its 2019 notes within the 30-day grace period, and our belief that the company would likely elect not to meet its financial obligations to its debtholders until it agreed on a financial restructuring plan with them.

On Oct. 25, 2016, S&P Global Ratings withdrew all of its ratings on Basic Energy Services. The company and its 27 subsidiaries filed for bankruptcy protection on the same day as a result of financial stress following declining commodity prices.

On Dec. 23, 2016, the company emerged from Chapter 11.

Table 155**Basic Energy Services Inc./Issuer Credit Rating History**

Date	To
25-Oct-2016	NR/--/--
16-Sep-2016	D/--/--
15-Aug-2016	CC/Negative/--
25-Jul-2016	CCC-/Negative/--
24-Mar-2016	CCC+/Negative/--
05-Aug-2015	B-/Negative/--
10-Apr-2015	B/Stable/--
29-Aug-2013	B+/Stable/--
28-Sep-2012	B+/Positive/--
01-Jul-2011	B+/Stable/--
03-Aug-2010	B/Stable/--
10-Dec-2009	B/Negative/--
07-Jul-2009	B+/Negative/--
10-Feb-2009	BB-/Negative/--
17-Jul-2008	BB-/Stable/--

Table 155**Basic Energy Services Inc./Issuer Credit Rating History (cont.)**

Date	To
22-Apr-2008	BB-/Watch Pos/--
10-Mar-2008	BB-/Stable/--
30-Mar-2006	B+/Positive/--
22-Nov-2005	B+/Stable/--
28-Oct-2003	B/Stable/--

Cloud Peak Energy Resources LLC

- US\$300 million 8.50% notes due Dec. 15, 2019
- US\$300 million 8.25% notes due Dec. 15, 2017
- US\$200 million notes due Dec. 31, 2024
- US\$400 million revolving first-lien guaranteed senior secured bank loan due Feb. 21, 2019

On Sept. 23, 2016, S&P Global Ratings lowered its corporate credit rating on Gillette-based coal producer company Cloud Peak Energy Resources LLC to 'SD' from 'B+' as a result of a below-par exchange offer of its US\$300 million senior unsecured notes due 2019 and its US\$200 million senior unsecured notes due 2024. We viewed the exchange as distressed under our criteria because the cash and principal amount of the new securities offered was less than the original par amount.

On Oct. 17, 2016, S&P Global Ratings raised its corporate credit rating on Cloud Peak Energy Resources to 'B-' from 'SD'. The outlook is negative. Cloud Peak Energy Resources completed the exchange offer of its US\$300 million senior unsecured notes due 2019 and its US\$200 million senior unsecured notes due 2024. The negative outlook reflected the company's weakened operating performance and the uncertainty about its ability to generate positive operating cash flows in the next 12 months.

Table 156**Cloud Peak Energy Resources LLC/Issuer Credit Rating History**

Date	To
17-Oct-2016	B-/Negative/--
23-Sep-2016	SD/NM/--
02-Mar-2016	B+/Stable/--
10-Nov-2009	BB-/Stable/--

Samarco Mineracao S.A.

- US\$700 million 5.75% notes due Oct. 24, 2023
- US\$500 million 5.375% notes due Sept. 26, 2024
- US\$1 billion 4.125% notes due Nov. 1, 2022
- US\$450 million first-lien senior secured term bank loan due Feb. 1, 2024
- US\$231 million first-lien senior secured term bank loan due Sept. 30, 2020
- US\$335 million first-lien senior secured term bank loan due Sept. 9, 2018

On Sept. 28, 2016, S&P Global Ratings lowered its corporate credit ratings on Brazil-based mining company Samarco

Mineracao S.A. to 'D' from 'CCC'. The downgrade followed the missed interest payment due Sept. 26, 2016, on Samarco's 2024 senior unsecured notes. The notes had a 30-day cure period, during which the company could make the payment without triggering default.

On Oct. 25, 2016, S&P Global Ratings lowered its issue-level rating on Samarco Mineracao's senior unsecured notes due 2023 to 'D' from 'CC'. The company missed interest payments on the notes that were due on Oct. 24, 2016. Samarco had a 30-day cure period to amend such payment, but given the company's difficult financial situation and its default on its other debt, we didn't expect Samarco to make the payments.

Table 157

Samarco Mineracao S.A./Issuer Credit Rating History

Date	To
28-Sep-2016	D/--/--
05-Jul-2016	CCC/Negative/--
03-Feb-2016	B/Negative/--
23-Nov-2015	BB-/Watch Neg/--
06-Nov-2015	BB+/Watch Neg/--
10-Sep-2015	BB+/Stable/--
28-Jul-2015	BBB-/Negative/--
24-Mar-2014	BBB-/Stable/--
31-Jan-2014	BBB/Negative/--
22-Oct-2012	BBB/Stable/--

Postmedia Network Inc.

- US\$275 million 12.50% second-lien notes due July 15, 2018
- CAD250 million notes due Dec. 31, 2017
- CAD140 million 8.25% notes due Dec. 31, 2017
- US\$88.58 million 10.25% second-lien notes due July 15, 2023
- CAD225 million 8.25% first-lien notes due July 15, 2021

On Oct. 5, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Toronto-based media company Postmedia Network Inc. to 'SD' from 'CC' following the company's announcement that it completed its previously announced recapitalization transaction. The noteholders received less than par, we viewed the transaction as a distressed exchange and, in our view, Postmedia has effectively defaulted on the notes. Subsequently, we withdrew all our ratings on Postmedia at the company's request.

Table 158

Postmedia Network Inc./Issuer Credit Rating History

Date	To
05-Oct-2016	NR/--/--
05-Oct-2016	SD/NM/--
11-Jul-2016	CC/Negative/--
29-Jun-2016	CCC-/Negative/--
30-Nov-2015	CCC+/Negative/--
01-Aug-2012	B-/Stable/--

Table 158**Postmedia Network Inc./Issuer Credit Rating History (cont.)**

Date	To
09-May-2012	B/Negative/--
03-Feb-2012	B/Stable/--
22-Jun-2010	B+/Negative/--

Seven Energy International Ltd.

- US\$300 million 10.25% notes due Oct. 11, 2021
- US\$100 million notes due Sept. 30, 2021

On Oct. 13, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Nigeria-based oil and gas exploration, production, processing, and distribution company Seven Energy International Ltd. to 'D' from 'CCC-'. The rating action followed the company's decision to miss the interest payment on its \$300 million and \$100 million senior secured bonds as part of its agreement with its bondholders. According to our definitions, we consider this nonpayment of interest event to be a default. Earlier, on Oct. 4, 2016, Seven Energy agreed to change the maturity schedule of its \$385 million Accugas IV facility, which we viewed as a financial restructuring.

Table 159**Seven Energy International Ltd./Issuer Credit Rating History**

Date	To
13-Oct-2016	D/--/--
30-Aug-2016	CCC-/Negative/--
25-May-2016	CCC+/Negative/--
11-Feb-2016	B-/Negative/--
07-Jul-2015	B-/Stable/--
13-Mar-2015	B-/Watch Neg/--
14-Oct-2014	B-/Stable/--

EnQuest PLC

- US\$650 million 7.00% callable notes due April 15, 2022
- US\$1.2 billion first-lien guaranteed senior secured revolving bank loan due Jan. 31, 2020
- GBP155 million 7.00% senior unsecured notes due April 15, 2022

On Oct. 18, 2016, S&P Global Ratings lowered its long-term corporate credit rating on U.K.-based oil and gas exploration company EnQuest PLC to 'SD' from 'B-'. The rating action followed EnQuest's announcement on Oct. 13, 2016, that it had agreed with noteholders representing approximately 61% of the high-yield notes to capitalize the coupon due Oct. 17, in line with a proposed restructuring. The proposed restructuring allows EnQuest to capitalize interest on the notes when the average oil price is below \$65 per barrel. The company was expected to complete the restructuring by Nov. 21.

On Nov. 30, 2016, S&P Global Ratings raised its corporate credit rating on EnQuest PLC to 'B-' from 'SD' following our review of EnQuest's capital structure and liquidity position. The negative outlook indicates our view of the continued uncertainty around EnQuest's cash flow volatility and generation, given the company's reliance on the start-up and

increase of production at the Kraken project.

Table 160

EnQuest PLC/Issuer Credit Rating History

Date	To
30-Nov-2016	B-/Negative/--
18-Oct-2016	SD/NM/--
11-Feb-2016	B-/Negative/--
05-Oct-2015	B/Negative/--
26-Mar-2015	B+/Negative/--
22-Dec-2014	B+/Watch Neg/--
26-Mar-2014	B+/Stable/--

JSCB Peresvet Bank

- RUB5 billion variable-rate notes due Sept. 2, 2020
- RUB2 billion 12.30% notes due June 22, 2017
- RUB3.5 billion 12.30% notes due Oct. 16, 2020
- RUB3 billion 13.25% notes due April 25, 2018
- RUB5 billion 13.50% notes due June 23, 2021
- RUB3 billion 13.00% notes due Oct. 7, 2017
- RUB1.1 billion 13.25% notes due Nov. 6, 2020
- RUB 3 billion 12.50% notes due Sept. 6, 2017

On Oct. 24, 2016, S&P Global Ratings lowered its long- and short-term counterparty credit ratings on Russia-based JSCB Peresvet Bank to 'D/D' from 'CCC-/C'. The downgrade reflected the regulatory action taken by the Central Bank of Russia (CBR) regarding its intervention and appointment of a temporary administrator for Peresvet Bank on Oct. 21, 2016. According to the CBR, the bank failed to meet its creditors' claims for more than seven days. At the same time, the CBR suspended the authority of the bank's management team. We considered this to be evidence of Peresvet Bank's failure to meet its financial obligations as a result of the liquidity crisis that the bank had been facing.

On Dec. 22, 2016, S&P Global Ratings lowered its issue ratings on all bonds issued by JSCB Peresvet Bank to 'D' from 'CC'.

Table 161

JSCB Peresvet Bank/Issuer Credit Rating History

Date	To
24-Oct-2016	D/--/--
20-Oct-2016	CCC-/Watch Neg/--
10-Feb-2014	B+/Stable/--

Petroleos de Venezuela S.A.

- US\$5 billion 6.00% notes due May 16, 2024
- US\$4.5 billion 6.00% senior unsecured notes due Nov. 15, 2026
- US\$3 billion 8.50% notes due Nov. 2, 2017
- US\$3 billion 5.25% senior unsecured notes due April 12, 2017

- US\$3 billion 5.375% senior unsecured notes due April 12, 2027
- US\$2.4 billion 9.00% notes due Nov. 17, 2021
- US\$1.5 billion 5.50% senior unsecured notes due April 12, 2037

On Oct. 25, 2016, S&P Global Ratings lowered its corporate credit rating on Venezuela-based oil and gas company Petroleos de Venezuela S.A. (PDVSA) to 'SD' from 'CC'. The downgrade followed PDVSA's announcement that it would exchange 31.4% of its 3.0 billion 5.25% senior unsecured notes due April 2017 and 45.30% of its \$4.1 billion 8.5% senior unsecured notes due November 2017. As a result, PDVSA would issue new senior secured notes for \$3.3 billion at an 8.50% interest rate due 2020. The new notes would be guaranteed by 50.1% of equity shares in PDVSA's indirect subsidiary, Citgo Holding Inc. We viewed the transaction as a distressed exchange because the timing of payments would be delayed with the extension of the maturity date of the new notes.

On Nov. 3, 2016, S&P Global Ratings raised its corporate credit rating on PDVSA to 'CCC-' from 'SD' following completion of a debt exchange offer of PDVSA's outstanding 5.25% and 8.5% senior unsecured notes. The negative outlook on PDVSA reflected the high debt and upcoming maturities in 2017 that could lead to another distressed exchange of the company's debt obligations in the next six months.

Table 162

Petroleos de Venezuela S.A./Issuer Credit Rating History

Date	To
03-Nov-2016	CCC-/Negative/--
25-Oct-2016	SD/NM/--
19-Sep-2016	CC/Negative/--
10-Feb-2015	CCC/Negative/--
17-Sep-2014	CCC+/Negative/--
13-Dec-2013	B-/Negative/--
17-Jun-2013	B/Negative/--
22-Apr-2013	B+/Negative/--
13-Jan-2010	B+/Stable/--
12-Jun-2009	B+/Negative/--
10-Dec-2008	BB-/Negative/--
08-Mar-2007	BB-/Stable/--
01-Nov-2006	B+/Watch Pos/--
08-Feb-2006	B+/Watch Dev/--
15-Aug-2005	B+/Stable/--
25-Aug-2004	B/Stable/--
31-Jul-2003	B-/Stable/--
16-Apr-2003	CCC+/Stable/--
13-Dec-2002	CCC+/Negative/--
24-Sep-2002	B-/Negative/--
15-Mar-2002	B/Negative/--
12-Feb-2002	B/Watch Neg/--
21-Dec-1999	B/Stable/--
31-Aug-1998	B+/Negative/--

Table 162**Petroleos de Venezuela S.A./Issuer Credit Rating History (cont.)**

Date	To
05-Jun-1997	B+/Stable/--
24-Jan-1997	B/Positive/--
26-Jun-1996	B/Stable/--
23-Feb-1996	B/Negative/--
01-Dec-1995	B+/Watch Neg/--
01-Dec-1995	B+/NM/--
27-Jul-1994	B+/Negative/--
07-Mar-1994	BB-/Watch Neg/--
04-Mar-1994	BB/Stable/--
08-Jul-1993	BB/Negative/--

Homer City Generation L.P.

- US\$174 million 8.137% senior secured notes due Oct. 1, 2019
- US\$466 million 8.734% senior secured notes due Oct. 1, 2026

On Oct. 25, 2016, S&P Global Ratings lowered its corporate credit rating on Stamford-based Homer City Generation L.P. to 'D' from 'CC'. The downgrade reflected Homer City's failure to make the coupon payment due under its 2019 and 2026 notes and our expectation that the company will ultimately elect not to meet its existing financial obligations to its debtholders and instead will attempt to agree on a financial restructuring plan with them. We consider the forbearance as a default under our criteria because bondholders received less than originally promised without adequate compensation.

Nearly four months later, on Jan. 11, 2017, the company filed for Chapter 11 bankruptcy protection to implement a restructuring plan to reduce its balance sheet debt by roughly \$600 million.

Table 163**Homer City Generation L.P./Issuer Credit Rating History**

Date	To
25-Oct-2016	D/--/--
10-Oct-2016	CC/Negative/--
11-May-2016	CCC-/Negative/--
17-Feb-2016	B-/Watch Neg/--
06-Dec-2012	B-/Stable/--

Expro Holdings U.K. 3 Ltd.

- US\$914 million floating rate mezzanine bank loan due July 15, 2018

On Oct. 28, 2016, S&P Global Ratings' lowered its long-term corporate credit rating on U.K.-based oilfield services company Expro Holdings U.K. 3 Ltd. to 'SD' from 'CCC+'. Expro announced that it exchanged 98% of its \$800 million outstanding mezzanine facility for equity, which we view as a distressed exchange offer tantamount to a default.

On Nov. 1, 2016, S&P Global Ratings raised its long-term corporate credit rating on Expro to 'CCC+' from 'SD' because the company completed the exchange of its \$780 million mezzanine facility for equity. At the same time, we withdraw the issue rating on Expro's mezzanine facility after it converted the vast majority of its debt to equity. The negative outlook reflects that we may lower the rating if our assessment of prospective liquidity deteriorates and the company does not take sufficient measures.

Table 164

Expro Holdings U.K. 3 Ltd./Issuer Credit Rating History

Date	To
01-Nov-2016	CCC+/Negative/--
28-Oct-2016	SD/NM/--
23-Jun-2016	CCC+/Negative/--
17-Sep-2015	CCC+/Stable/--
03-Jun-2015	B-/Watch Neg/--
22-Jan-2015	B-/Stable/--
12-May-2014	B-/Positive/--
27-Jun-2013	B-/Stable/--
25-Jun-2012	B-/Negative/--
30-Mar-2012	CCC+/Watch Pos/--
05-Apr-2011	CCC+/Negative/--
21-Oct-2010	B-/Negative/--
01-Jun-2010	B/Negative/--
03-Dec-2009	B/Stable/--

Performance Sports Group Ltd.

- US\$450 million term bank loan due April 15, 2021

On Nov. 1, 2016, S&P Global Ratings lowered its corporate credit rating on Exeter-based sporting equipment and apparel manufacturer Performance Sports Group Ltd. (PSG) to 'D' from 'CCC'. The rating action followed PSG's voluntary filing of Chapter 11 bankruptcy protection on Oct. 31, 2016. The filing comes after the company missed its Oct. 28, 2016, deadline to file its fiscal year-ended May 31, 2016, annual financial statements.

On Nov. 15, 2016, S&P Global Ratings affirmed and withdrew its 'D' corporate credit rating on PSG at the company's request.

Table 165

Performance Sports Group Ltd./Issuer Credit Rating History

Date	To
15-Nov-2016	NR/--/--
01-Nov-2016	D/--/--
16-Aug-2016	CCC/Negative/--
21-Apr-2016	CCC+/Negative/--
26-Jan-2016	B-/Stable/--
22-Oct-2015	B/Stable/--
18-Mar-2014	B+/Stable/--

21st Century Oncology Holdings Inc.

On Nov. 2, 2016, S&P Global Ratings lowered its corporate credit rating on Florida-based cancer care provider 21st Century Oncology Holdings Inc. to 'SD' from 'CCC'. The downgrade followed 21st Century's announcement that it failed to make the Nov. 1, 2016, interest payment on the 11.0% senior unsecured notes due 2023. Given our view of the company's debt level as unsustainable, and ongoing restructuring discussions, we did not expect a payment to be made within the grace period.

Table 166**21st Century Oncology Holdings Inc./Issuer Credit Rating History**

Date	To
02-Nov-2016	SD/NM/--
17-May-2016	CCC/Watch Neg/--
29-Mar-2016	B-/Watch Neg/--
29-Sep-2014	B-/Stable/--
31-Jul-2014	CCC+/Negative/--
14-Jul-2014	B-/Negative/--
27-May-2014	B-/Stable/--
08-May-2014	B-/Positive/--

IronGate Energy Services LLC

- US\$210 million 11.00% notes due July 1, 2018
- US\$30 million 11.00% notes due July 1, 2018
- US\$180 million 11.00% notes due July 1, 2018

On Nov. 4, 2016, S&P Global Ratings lowered its corporate credit and issue-level ratings on Texas-based oilfield services provider IronGate Energy Services LLC to 'D' from 'CC'. The downgrade reflected the expiration of the most recent series of forbearance agreements on Oct. 31, 2016, related to the company's decision to defer its semiannual interest payment due July 1, 2016, on its US\$210 million 11% senior secured notes.

On Dec. 20, 2016, S&P Global Ratings withdrew its ratings on the issuer.

Table 167**IronGate Energy Services LLC/Issuer Credit Rating History**

Date	To
20-Dec-2016	NR/--/--
04-Nov-2016	D/--/--
07-Jul-2016	CC/Negative/--
11-May-2016	CCC-/Negative/--
24-Jun-2015	CCC+/Stable/--

Erickson Inc.

- US\$400 million 8.25% second priority senior secured notes due May 1, 2020
- US\$450 million first-lien guaranteed senior secured revolving bank loan due May 2, 2018

On Nov. 9, 2016, S&P Global Ratings downgraded Portland-based helicopter services provider Erickson Inc. to 'D'

from 'CCC-'. The 'D' rating reflected Erickson's Chapter 11 bankruptcy filing. Erickson plans to continue to operate while it develops a reorganization plan and expects that it will emerge from bankruptcy in 2017.

On Dec. 12, 2016, S&P Global Ratings withdrew all of its ratings on Erickson.

Table 168

Erickson Inc./Issuer Credit Rating History

Date	To
12-Dec-2016	NR/--/--
09-Nov-2016	D/--/--
08-Nov-2016	CCC-/Watch Neg/--
10-Jun-2016	CCC/Negative/--
31-May-2016	CCC+/Negative/--
16-Feb-2016	B-/Negative/--
25-Jun-2014	B/Negative/--
17-Apr-2013	B/Stable/--

Cell C (Pty) Ltd.

- €400 million 8.625% senior secured notes due July 1, 2018

On Dec. 6, 2016, S&P Global Ratings lowered its long-term corporate credit rating on South Africa-based mobile network operator Cell C (Pty) Ltd. to 'SD' from 'B'. The downgrade reflected the delay in Cell C's refinancing assumed in October 2016 where a South African rand (ZAR)8.5 billion (about US\$600 million) equivalent bond was to be raised in U.S. dollars.

Table 169

Cell C (Pty) Ltd./Issuer Credit Rating History

Date	To
06-Dec-2016	SD/NM/--
14-Oct-2016	B/Stable/--
28-Jun-2016	B-/Watch Dev/--
22-Dec-2015	B-/Watch Pos/--
22-Jul-2015	B-/Stable/--
01-Jun-2015	B-/Watch Neg/--
21-Jun-2012	B-/Stable/--
14-Dec-2010	B-/Positive/--
15-Sep-2010	B-/Watch Pos/--
09-Jul-2008	B-/Stable/--
15-May-2008	B-/Watch Pos/--
07-Dec-2007	B-/Negative/--
13-Jun-2006	B/Negative/--
15-Apr-2005	B+/Stable/--

Memorial Production Partners L.P.

- US\$700 million 7.625% notes due May 1, 2021
- US\$500 million 6.875% senior notes due Aug. 1, 2022

On Dec. 7, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based oil and gas exploration and production company Memorial Production Partners L.P. (MEMP) to 'D' from 'CC'. The downgrade reflected MEMP's failure to make the coupon payment due under its 2021 notes within the 30-day grace period. We believe that the partnership would likely elect not to meet its financial obligations until it agreed on a financial restructuring plan after MEMP entered into a forbearance agreement with certain holders of the notes.

Table 170**Memorial Production Partners LP/Issuer Credit Rating History**

Date	To
07-Dec-2016	D/--/--
03-Nov-2016	CC/Negative/--
01-Nov-2016	CCC-/Negative/--
09-Feb-2016	B-/Negative/--
16-Nov-2015	B/Stable/--
11-Sep-2014	B+/Stable/--
06-May-2014	B/Positive/--
09-Apr-2013	B/Stable/--

North American Membership Group Inc.

On Dec. 8, 2016, New York-based media and entertainment company North American Membership Group Inc. filed for Chapter 11 protection.

On March 30, 2007, S&P Global Ratings removed its ratings on North American Membership Group from CreditWatch and withdrew them because of the lack of financial information on the company.

Table 171**North American Membership Group Inc./Issuer Credit Rating History**

Date	To
30-Mar-2007	NR/--/--
07-Dec-2006	B/Watch Neg/--
08-Apr-2005	B/Stable/--

Cobalt International Energy Inc.

- US\$1.38 billion 2.625% senior notes convertible due Dec. 1, 2019
- US\$1.3 billion 3.125% senior notes convertible due May 15, 2024

On Dec. 9, 2016, S&P Global Ratings lowered its unsolicited corporate credit rating on Houston-based oil and gas exploration and production company Cobalt International Energy Inc. to 'D' from 'CC'. The downgrade reflected the completed debt exchange on Cobalt's 2.625% convertible senior notes due 2019 and 3.125% convertible senior notes due 2024. The exchange, per our criteria, is distressed because the holders received less value than was promised on the original securities. We also think that the company is facing a realistic possibility of a conventional default over the

next 12 months.

Table 172

Cobalt International Energy Inc./Issuer Credit Rating History

Date	To
09-Dec-2016	D/--/--
07-Nov-2016	CC/Negative/--
14-Sep-2016	CCC-/Negative/--
24-Aug-2016	CCC+/Negative/--
11-Jul-2014	CCC+/Stable/--

Jack Cooper Holdings Corp.

- US\$375 million 9.25% senior secured notes due June 1, 2020
- US\$100 million first-lien guaranteed senior secured revolving bank loan due June 18, 2018
- US\$165 million 11.25% senior pay-in-kind toggle notes due March 15, 2019

On Dec. 9, 2016, S&P Global Ratings lowered its corporate credit rating on Kansas City-based transportation company Jack Cooper Holdings Corp. to 'SD' from 'CC'. The downgrade followed Jack Cooper's announcement that it completed the exchange of its senior unsecured PIK toggle notes due 2019 for a combination of cash and warrants in a transaction that we consider a distressed exchange. For each US\$1,000 in principal amount, the PIK noteholders received US\$135 in cash and warrants to purchase shares of the company's class B non-voting stock. The exchange offer allowed the company to retire about US\$131 million of its PIK notes.

Table 173

Jack Cooper Holdings Corp./Issuer Credit Rating History

Date	To
09-Dec-2016	SD/NM/--
02-Dec-2016	CC/Watch Neg/--
03-Jun-2014	CCC+/Stable/--
04-Jun-2013	B-/Stable/--

iHeartCommunications Inc.

- US\$250 million 5.50% notes due Dec. 15, 2016
- US\$300 million 7.25% senior debentures due Oct. 15, 2027
- US\$5 billion term D bank loan due Jan. 30, 2019
- US\$1.3 billion term E bank loan due Dec. 31, 2019
- US\$1.2 billion 12.00% senior notes due Feb. 1, 2021
- US\$2 billion 9.00% senior secured notes due Dec. 15, 2019
- US\$850 million 10.00% senior notes due Jan. 15, 2018
- US\$1.75 billion 9.00% priority guarantee notes due March 1, 2021
- US\$175 million 6.875% senior debentures due June 15, 2018
- US\$950 million 10.625% priority guarantee notes due Dec. 31, 2023
- US\$1 billion 9.00% priority guarantee notes due Sept. 15, 2022
- US\$500 million 11.25% priority guarantee senior secured notes due March 1, 2021

On Dec. 15, 2016, S&P Global Ratings lowered its corporate credit rating on San Antonio-based diversified media and

entertainment company iHeartCommunications Inc. following the downgrade of its parent company, iHeartMedia Inc., to 'SD' from 'CCC'. Radio broadcaster and outdoor advertising company iHeartMedia announced on Dec. 13, 2016, that it decided to not repay US\$57.1 million of iHeartCommunications Inc.'s 5.5% senior unsecured notes maturing Dec. 15, 2016. That portion of the notes is held by Clear Channel Holdings Inc., a subsidiary of iHeartCommunications. Per the announcement, Clear Channel would not pursue remedies related to the nonpayment. We view nonpayment as a default, based on our criteria.

On Dec. 21, 2016, S&P Global Ratings raised its corporate credit rating on iHeartCommunications Inc. to 'CC' from 'SD' following iHeartCommunications' announcement that it offered to exchange its 10% senior notes due 2018 for priority guarantee notes due 2021.

Table 174

iHeartCommunications Inc./Issuer Credit Rating History	
Date	To
21-Dec-2016	CC/Negative/--
15-Dec-2016	SD/NM/--
14-Jun-2016	CCC/Negative/--
08-Mar-2016	CCC/Watch Neg/--
07-Jan-2016	CCC/Negative/--
13-Dec-2011	CCC+/Negative/--
11-Dec-2009	CCC+/Positive/--
31-Aug-2009	CCC/Negative/--
28-Aug-2009	SD/NM/--
04-Aug-2009	CC/Negative/--
08-Jun-2009	CCC/Negative/--
04-May-2009	B-/Watch Neg/--
05-Mar-2009	B-/Negative/--
20-Feb-2009	B-/Watch Neg/--
13-Feb-2009	B/Watch Neg/--
24-Dec-2008	B/Stable/--
23-Dec-2008	SD/NM/--
05-Dec-2008	CC/Negative/--
18-Jun-2008	B/Stable/--
19-Apr-2007	B+/Watch Neg/--
16-Nov-2006	BB+/Watch Neg/--
26-Oct-2006	BBB-/Watch Neg/--
29-Apr-2005	BBB-/Negative/--
06-May-2003	BBB-/Stable/--
28-Mar-2002	BBB-/Negative/--
06-Oct-2000	BBB-/Stable/--
31-Aug-2000	BBB-/Positive/--
29-Feb-2000	BBB-/Stable/--
04-Oct-1999	BBB-/Negative/--
15-Mar-1999	BBB-/Stable/--

Table 174**iHeartCommunications Inc./Issuer Credit Rating History (cont.)**

Date	To
08-Oct-1998	BBB-/Watch Neg/--
26-Sep-1997	BBB-/Stable/--

Optima Specialty Steel Inc.

- US\$175 million 12.50% notes due Dec. 15, 2016
- US\$85 million 12.00% notes due Dec. 30, 2016

On Dec 15, 2016, S&P Global Ratings lowered its corporate credit rating on Miami-based metals, mining, and steel company Optima Specialty Steel Inc. to 'D' from 'CC'. The downgrade followed Optima's announcement that it filed a voluntary petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code after the company failed to refinance its debt maturing on Dec. 15 and Dec 30, 2016.

Table 175**Optima Specialty Steel Inc./Issuer Credit Rating History**

Date	To
15-Dec-2016	D/--/--
08-Nov-2016	CC/Negative/--
12-Oct-2016	CCC-/Negative/--
10-Mar-2016	CCC/Negative/--
09-Dec-2015	CCC+/Negative/--
06-Mar-2015	B/Negative/--
06-Jan-2012	B/Stable/--

PJSC Tatfondbank

- US\$70 million 11.00% notes due April 28, 2017
- US\$60 million 8.50% LPN notes due Nov. 12, 2019
- RUB 3,000 billion 12.5% notes senior secured due Dec. 11, 2024
- RUB 3,000 billion 13.00% notes senior secured due Sept. 7, 2021
- RUB 4,000 billion 13.5% notes senior secured due May 28, 2025
- RUB 4,000 billion 13.5% notes senior secured due March 21, 2025
- RUB 2,000 billion 14.5% notes senior secured due Feb. 3, 2026

On Dec. 16, 2016, S&P Global Ratings lowered its long-term counterparty credit ratings on Russia-based PJSC Tatfondbank to 'D' from 'CCC-'. The downgrade reflected the regulatory intervention by the Central Bank of Russia (CBR) and its appointment of a temporary administrator on Dec. 15, 2016. According to the CBR, the bank failed to meet its creditors' claims for more than seven days. We consider this evidence of Tatfondbank's failure to meet its financial obligations as a result of a liquidity crisis.

Table 176**PJSC Tatfondbank/Issuer Credit Rating History**

Date	To
16-Dec-2016	D/--/--

Table 176**PJSC Tatfondbank/Issuer Credit Rating History (cont.)**

Date	To
12-Dec-2016	CCC-/Watch Neg/--
24-Feb-2015	B/Negative/--
24-Mar-2014	B/Stable/--

Sierra Hamilton LLC

- US\$110 million 12.25% senior secured notes due Dec. 15, 2018

On Dec. 16, 2016, S&P Global Ratings lowered its corporate credit rating on Midland-based exploration and production service provider Sierra Hamilton LLC to 'D' from 'CCC'. Sierra Hamilton entered into a 30-day grace period to make the Dec. 15 interest payment on its 12.25% senior secured notes due 2018. The downgrade reflected our expectation that Sierra Hamilton was not likely to make the interest payment on its 12.25% senior secured notes due 2018 within the 30-day grace period and would instead seek a debt restructuring.

Table 177**Sierra Hamilton LLC/Issuer Credit Rating History**

Date	To
16-Dec-2016	D/--/--
23-Jun-2016	CCC/Negative/--
29-Jun-2015	CCC+/Stable/--
05-Dec-2013	B-/Stable/--

Illinois Power Generating Co.

- US\$275 million 7.95% senior notes due June 1, 2032
- US\$300 million 7.00% senior unsecured notes due April 15, 2018
- US\$250 million 6.30% notes series I due April 1, 2020

On Dec. 19, 2016, S&P Global Ratings lowered its corporate credit and senior unsecured debt ratings on Houston-based utility company Illinois Power Generating Co. (IPG) to 'D' from 'CC' following a filing for protection under Chapter 11 of the U.S. Bankruptcy Code. IPG filed for bankruptcy protection because the U.S. merchant power market prices and capacity prices in its region are not sufficient to sustain this merchant coal power generator's highly leveraged capital structure.

Table 178**Illinois Power Generating Co./Issuer Credit Rating History**

Date	To
19-Dec-2016	D/--/--
19-Oct-2016	CC/Negative/--
14-Jun-2016	CCC+/Negative/--
28-Jul-2014	CCC+/Stable/--
08-Feb-2013	CCC+/Negative/--
21-Dec-2012	B-/Stable/--

Table 178

Illinois Power Generating Co./Issuer Credit Rating History (cont.)	
Date	To
26-Nov-2012	B/Stable/--
03-Apr-2012	BB-/Negative/--
05-Mar-2012	BB-/Watch Neg/--
28-Feb-2012	BB/Negative/--
15-Dec-2010	BBB-/Negative/--
29-Aug-2007	BBB-/Stable/--
23-Apr-2007	BBB-/Watch Neg/--
05-Oct-2006	BBB/Watch Neg/--
03-Oct-2005	BBB+/Watch Neg/--
30-Jul-2004	A-/Negative/--
03-Feb-2004	A-/Watch Neg/--
31-Jan-2003	A-/Stable/--
29-Apr-2002	BBB+/Watch Pos/--
05-Oct-2001	BBB+/Negative/--
25-Sep-2000	BBB+/Stable/--

PJSC Commercial Bank PrivatBank

- US\$220 million 11.00% subordinated notes due Feb. 9, 2021

On Dec. 21, 2016, S&P Global Ratings lowered its long-term counterparty credit ratings on Ukraine-based PrivatBank to 'R' from 'B-', indicating the obligor is under regulatory supervision. The downgrade reflected the regulatory risk related to the National Bank of Ukraine's declaration of PrivatBank as insolvent, the bank's nationalization, as well as the possible--though not certain--introduction of a moratorium on some of PrivatBank's credit obligations by the government.

Table 179

PJSC Commercial Bank PrivatBank/Issuer Credit Rating History	
Date	To
21-Dec-2016	R/NM/--
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/--

Table 179**PJSC Commercial Bank PrivatBank/Issuer Credit Rating History (cont.)**

Date	To
12-Dec-2005	NR/--/--
25-Jan-2005	B-/Stable/--
02-Dec-2004	B-/Watch Neg/--
28-Oct-2003	B-/Stable/--

Grupo Isolux Corsan S.A.

- €45.88 million 0.25% subordinated notes due Dec. 30, 2018
- €236.31 million 3.00% subordinated notes due Dec. 30, 2021
- US\$25.54 million 3.00% subordinated notes due Dec. 30, 2021
- €531.99 million 0.25% subordinated notes due Dec. 30, 2021
- US\$57.53 million 0.25% subordinated notes due Dec. 30, 2021
- €631.76 million unsecured term bank loan due Dec. 16, 2021
- €277.43 million unsecured term bank loan due Dec. 16, 2021
- US\$46.87 million unsecured term bank loan due Dec. 16, 2021
- US\$136.26 million unsecured term bank loan due Dec. 16, 2021

On Dec. 23, 2016, Spain-based engineering and construction company Isolux Corsan S.A defaulted following a distressed exchange.

On Nov. 25, 2016, S&P Global Ratings affirmed its long-term corporate credit ratings on Isolux at 'CC' and subsequently withdrew the ratings at the company's request. The outlook was negative. At the time of the affirmation and withdrawal, Isolux was progressing on plans to restructure all of its outstanding debt.

Table 180**Grupo Isolux Corsan S.A./Issuer Credit Rating History**

Date	To
25-Nov-2016	NR/--/--
30-Jun-2016	CC/Negative/--
29-Apr-2016	CCC-/Negative/--
11-Dec-2015	B-/Negative/--
02-Nov-2015	B/Negative/--
20-Mar-2015	B/Watch Neg/--
12-Mar-2014	B/Stable/--

Petroleum Geo-Services ASA

- US\$450 million 7.375% bonds due Dec. 15, 2018
- US\$400 million variable-rate term loan B bank loan due Nov. 30, 2021
- US\$400 million first-lien guaranteed senior secured revolving bank loan due Sept. 18, 2020

On Dec. 23, 2016, S&P Global Ratings lowered its long-term corporate credit rating on Norwegian marine geophysical company Petroleum Geo-Services (PGS) to 'SD' from 'CC'. The downgrade followed PGS' announcement that about 94% of the holders of its US\$450 million outstanding senior unsecured notes exchanged their debt for US\$212 million

new notes due 2020 (50%) and US\$202 million in cash. The conversion, per our criteria, is tantamount to a default.

Table 181

Petroleum Geo-Services ASA/Issuer Credit Rating History

Date	To
23-Dec-2016	SD/NM/--
29-Nov-2016	CC/Negative/--
26-Feb-2016	CCC+/Negative/--
16-Nov-2015	B/Negative/--
22-Jan-2015	B+/Negative/--
04-Nov-2014	BB-/Negative/--
28-Jul-2014	BB/Negative/--
02-Dec-2010	BB/Stable/--
12-Feb-2010	BB-/Positive/--
10-Jul-2006	BB-/Stable/--
31-Mar-2006	B+/Watch Dev/--
16-Nov-2005	B+/Positive/--
06-May-2005	B+/Stable/--
12-Nov-2003	NR/--/--
30-Jul-2003	D/--/--
30-Dec-2002	CC/Watch Neg/--
20-Nov-2002	CCC+/Negative/--
29-Oct-2002	B/Negative/--
26-Sep-2002	BB-/Watch Dev/--
31-Jul-2002	BB-/Negative/--
03-May-2002	BBB-/Watch Neg/--
19-Jan-2001	BBB-/Stable/--
07-Dec-1998	BBB/Stable/--
20-Oct-1997	BBB/Positive/--
03-Feb-1997	BBB-/Positive/--
01-May-1996	BBB-/Stable/--

TwentyEighty Inc.

- US\$40 million revolving bank loan due Sept. 30, 2018
- US\$359 million term bank loan due Sept. 30, 2019
- US\$136 million first-lien senior secured term B bank loan due May 31, 2019
- US\$223 million first-lien senior secured term B bank loan due May 31, 2019

On Dec. 27, 2016, S&P Global Ratings lowered its corporate credit rating on Broomfield-based corporate sales and leadership training solutions provider TwentyEighty Inc. to 'D' from 'CC'. The downgrade followed TwentyEighty's missed interest payment due on Dec. 2, 2016, on its US\$359 million term loan. As of Sept. 30, 2016, the company was operating under an event of default after not achieving certain financial covenants and failing to deliver, in a timely manner, audited financial statements and a financial officer's certificate, which are required under its credit agreement. The downgrade also reflected our expectation that TwentyEighty would not make the interest payment while actively

engaged in the debt restructuring process.

Table 182

TwentyEighty Inc./Issuer Credit Rating History

Date	To
27-Dec-2016	D/--/--
13-Jun-2016	CC/Negative/--
22-Dec-2015	CCC/Negative/--
09-Sep-2015	B-/Negative/--
21-Jul-2015	B-/Watch Neg/--
05-Nov-2013	B/Stable/--

KazInvestBank

On Dec. 28, 2016, S&P Global Ratings lowered its long-term counterparty credit ratings on Kazakhstan-based KazInvestBank to 'D' from 'B-'. The rating action followed the National Bank of Kazakhstan's revocation of KazInvestBank's banking license on Dec. 27, 2016. In our view, the regulator's action means that KazInvestBank is unable to fulfil its obligations to its counterparties according to the terms of the respective agreements.

Table 183

KazInvestBank/Issuer Credit Rating History

Date	To
28-Dec-2016	D/--/--
24-May-2016	B-/Negative/--
03-Jun-2014	B-/Stable/--
25-Jul-2013	NR/--/--
17-Jul-2012	B-/Stable/--
29-Jun-2009	B-/Negative/--
23-Jun-2008	B/Negative/--
04-Dec-2006	B/Stable/--

Stallion Oilfield Holdings Inc.

- US\$375 million term bank loan due June 19, 2018

On Dec. 28, 2016, S&P Global Ratings lowered its corporate credit rating on Houston-based oilfield services company Stallion Oilfield Holdings Inc. to 'D' from 'CCC+'. The 'D' rating reflected Stallion Oilfield Holdings Inc.'s default on its term loan due 2018 and related debt restructuring. After the downgrade, we withdrew the ratings on the company.

Table 184

Stallion Oilfield Holdings Inc./Issuer Credit Rating History

Date	To
28-Dec-2016	NR/--/--
28-Dec-2016	D/--/--
08-Dec-2015	CCC+/Negative/--
20-Oct-2011	B/Stable/--
01-Jul-2011	B-/Positive/--

Table 184

Stallion Oilfield Holdings Inc./Issuer Credit Rating History (cont.)

Date	To
22-Apr-2010	B-/Stable/--
05-Feb-2010	CCC+/Watch Pos/--

Related Research

- The U.S. Corporate Speculative-Grade Default Rate Is Expected To Fall To 3.9% By December 2017, Feb. 14, 2017
- Recovery Study (U.S.): Volatile Credit Conditions Present Challenges To Post-Default Recoveries, Dec. 22, 2016

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