S&P Global Ratings

Default, Transition, and Recovery:

2019 Annual Global Corporate Default And Rating Transition Study

April 29, 2020

Key Takeaways

- The global speculative-grade corporate default rate rose to 2.5% in 2019 from 2.1% at the end of 2018, while the number of corporate defaults globally rose to 118, the first triple-digit total since 2016.

- Of the 94 companies that defaulted in 2019 that were rated at the start of the year, all but two were rated 'BB+' or lower, and 65% were in the 'CCC'/'C' rating category, leading to a one-year global Gini ratio of 88%.

- Credit deterioration ticked up in 2019, with fewer upgrades than downgrades, although ultimately ratings stability increased marginally as well due to fewer upgrades.

- For the fifth year in a row, the consumer services sector and energy and natural resources sector led the global default tally, accounting for nearly half of the total in 2019.

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After beginning with heightened credit market stress and a 45-plus-day stretch without any speculative-grade issuance in the U.S. and Europe, 2019 ultimately saw only marginally higher default and downgrade rates than 2018. Strains between the U.S. and China in their ongoing trade dispute eased at the end of the year with the signing of the "Phase 1" trade deal, which helped markets close the year on a solidly positive note. Ultimately, the global economy stayed on stable footing, showing slower but steady growth. The Federal Reserve and European Central Bank (ECB) both lowered rates and renewed asset purchases to help stabilize their respective economies.

By many measures, strong performance continued for S&P Global Ratings' corporate ratings in 2019. That said, the number of defaults rose to 118, the highest tally since 2016 (see chart 1 and table 1). But while higher in absolute terms, defaults remained relatively low.

Broadly consistent with the experience of 2018, nearly half of all defaults in 2019 came from two sectors: the consumer services sector and energy and natural resources (with 58 defaults combined). However, defaults from several other sectors increased as well. Three others (telecommunications, health care/chemicals, and high tech/computers/office equipment), in

addition to consumer services and energy, had default rates in 2019 that exceeded their long-term averages. Yearslong structural headwinds continued for energy and natural resources and for brick-and-mortar retailers within consumer services, keeping their default rates higher than those of nearly every other sector (see chart 2).

This default and rating transition study includes industrials, utilities, financial institutions (banks, brokerages, asset managers, and other financial entities), and insurance companies globally with long-term local currency ratings from S&P Global Ratings. We calculated all default rates on an issuer-weighted basis. The default rates that we refer to as weighted averages in this study use the number of issuers at the beginning of each year as the basis for each year's weight. (For a detailed explanation of our data sources and methodology, see Appendix I.)

Chart 1

Global Default Rates: Investment Grade Versus Speculative Grade
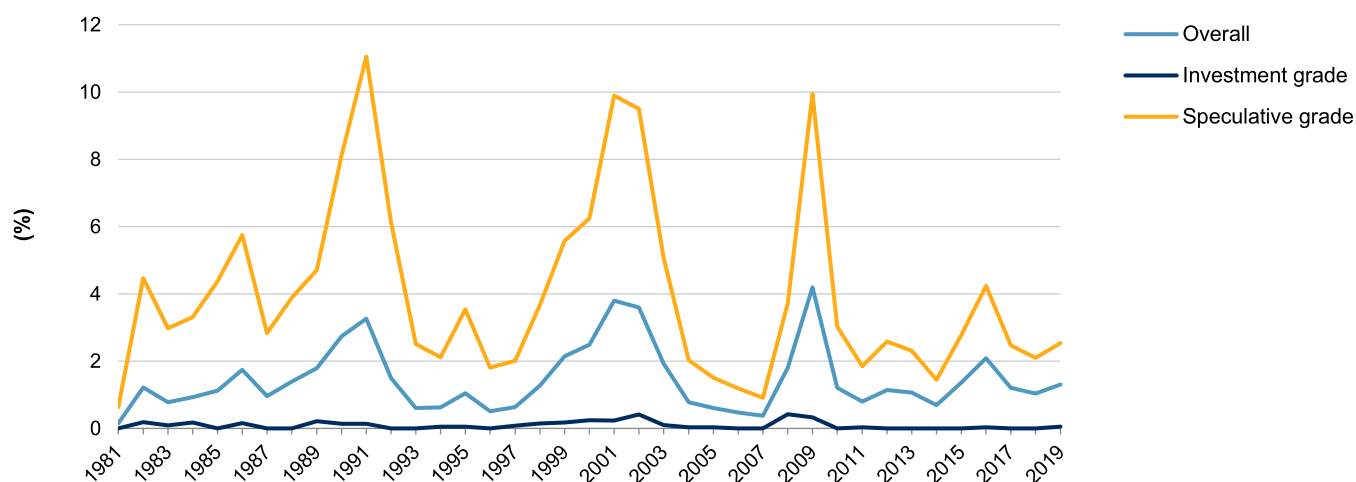
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®
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Table 1

Global Corporate Default Summary

| Year	Total defaults*	Investment-grade defaults	Speculative-grade defaults	Default rate (%)	Investment-grade default rate (%)	Speculative-grade default rate (%)	Total debt outstanding (bil. $)
1981	2		2	0.15	0.00	0.63	0.06
1982	18	2	15	1.22	0.19	4.46	0.90
1983	12	1	10	0.77	0.09	2.98	0.37
1984	14	2	12	0.93	0.17	3.31	0.36
1985	19		18	1.13	0.00	4.37	0.31
1986	34	2	30	1.74	0.15	5.75	0.46
1987	19		19	0.95	0.00	2.83	1.60
1988	32		29	1.39	0.00	3.88	3.30

Table 1

Global Corporate Default Summary (cont.)

Year	Total defaults*	Investment-grade defaults	Speculative-grade defaults	Default rate (%)	Investment-grade default rate (%)	Speculative-grade default rate (%)	Total debt outstanding (bil. $)
1989	44	3	35	1.79	0.22	4.70	7.28
1990	70	2	56	2.74	0.14	8.12	21.15
1991	93	2	65	3.26	0.14	11.05	23.65
1992	39		32	1.50	0.00	6.12	5.40
1993	26		14	0.60	0.00	2.51	2.38
1994	21	1	15	0.63	0.05	2.12	2.30
1995	35	1	29	1.05	0.05	3.54	8.97
1996	20		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	3.67	11.27
1999	109	5	92	2.15	0.17	5.57	39.38
2000	136	7	109	2.48	0.24	6.24	43.28
2001	229	7	173	3.79	0.23	9.90	118.79
2002	226	13	159	3.60	0.42	9.50	190.92
2003	119	3	89	1.93	0.10	5.07	62.89
2004	56	1	38	0.78	0.03	2.03	20.66
2005	40	1	31	0.60	0.03	1.51	42.00
2006	30		26	0.48	0.00	1.19	7.13
2007	24		21	0.37	0.00	0.91	8.15
2008	127	14	89	1.80	0.42	3.71	429.63
2009	268	11	224	4.19	0.33	9.95	627.70
2010	83		64	1.21	0.00	3.02	97.48
2011	53	1	44	0.80	0.03	1.85	84.30
2012	83		66	1.14	0.00	2.59	86.70
2013	81		64	1.06	0.00	2.31	97.29
2014	60		45	0.69	0.00	1.44	91.55
2015	113		94	1.36	0.00	2.78	110.31
2016	163	1	143	2.09	0.03	4.24	239.79
2017	95		83	1.21	0.00	2.46	104.57
2018	82		72	1.03	0.00	2.10	131.65
2019	118	2	92	1.30	0.06	2.54	183.21

*This column includes companies that were no longer rated one year prior to default. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 2

Global Corporate Default Rates By Industry: 2019 Versus Long-Term Average
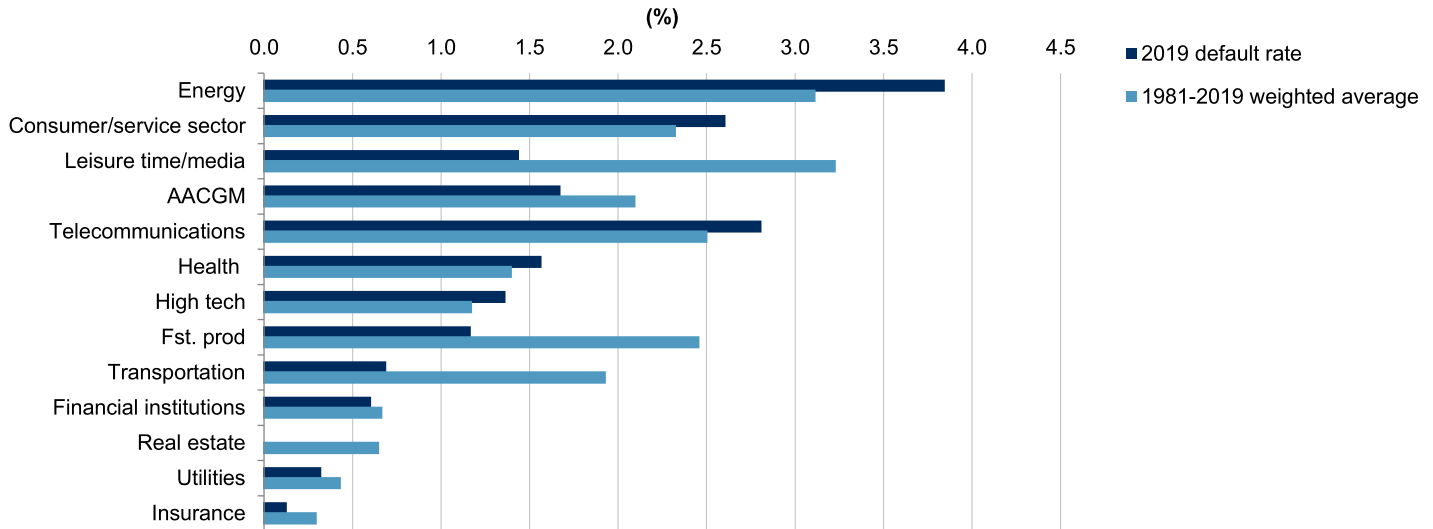
High tech--High technology/computers/office equipment. Health--Health care/chemicals. Fst. prod--Forest and building products/homebuilders. Energy--Energy and natural resources.
AACGM--Aerospace/automotive/capital goods/metal. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Of the 118 defaults in 2019, 94 were from companies rated as of the beginning of the year. The 24 defaults from companies that were not rated at the beginning of 2019 consisted of 16 for which the ratings were withdrawn before the beginning of 2019 and eight from companies that were first rated by S&P Global Ratings after Jan. 1, 2019. We consider companies reemerging from prior defaults to be separate entities, with their rating histories beginning with the postdefault rating.

For the first time in three years, there were defaults from companies that started the year with investment-grade ratings ('BBB-' or higher): Pacific Gas & Electric Co. and PG&E Corp. Of the remaining rated defaulters at the beginning of 2019, 65% were rated in the lowest rating category, 'CCC'/'C', at the start of the year.

Despite the two defaults from companies beginning the year with investment-grade ratings, the one-year Gini ratio remained high in 2019, at 88.4% (see chart 3). The Gini ratio is a measure of the rank-ordering power of ratings over a given time horizon, from one through seven years. It shows the ratio of actual rank-ordering performance to theoretically perfect rank ordering. The one-year Gini in 2019 was well above the one-year weighted average (since 1981) Gini ratio of 82.5% (see table 2 and chart 30). (For details on the Gini methodology, refer to Appendix II.)

Chart 3

Gini Coefficients By Pool Year Across Multiple Time Horizons
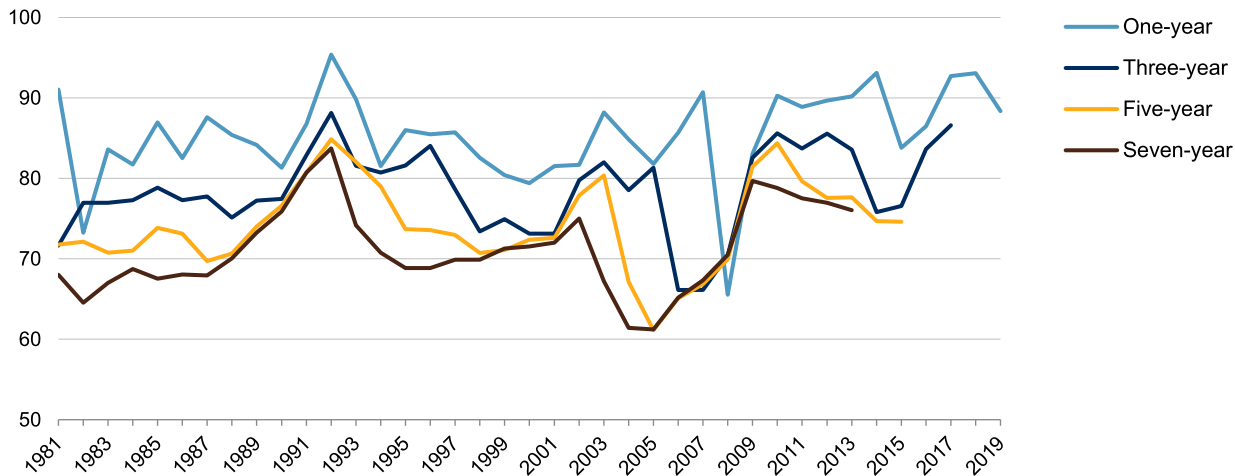
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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All of S&P Global Ratings Research's default studies have found a clear correlation between ratings and defaults: The higher the rating, the lower the observed frequency of default, and vice versa. Over each time span, lower ratings correspond to higher default rates (see charts 4 and 25), and this relationship holds true when broken out by rating modifier (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 effective measures of relative risk remains intact over time, 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 period. Transition studies have repeatedly confirmed that higher ratings tend to be more stable and that speculative-grade ratings ('BB+' or lower) generally experience more volatility.

However, since the financial downturn of 2008, many high-rated companies have been downgraded, leaving, for example, exceedingly few 'AAA' rated issuers at the start of 2019. 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 (1981-2019)

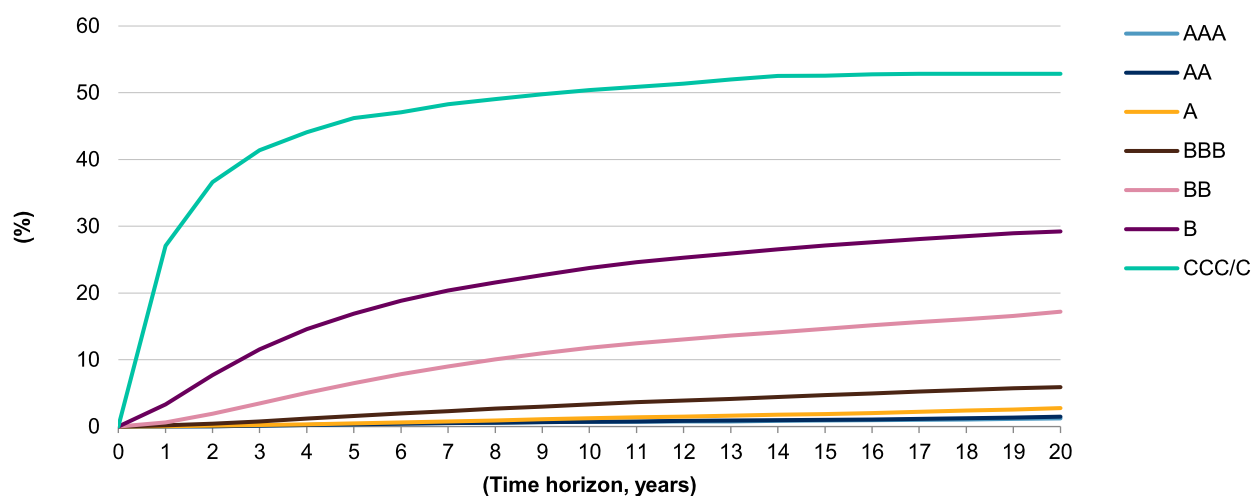| Sector	--Time horizon--			
	One-year	Three-year	Five-year	Seven-year
Global				
Weighted average	82.53	75.19	71.38	69.27
Average	85.39	78.56	74.16	71.20
Standard deviation	(5.56)	(5.26)	(5.36)	(5.35)

Global Average Gini Coefficients By Broad Sector (1981-2019) (cont.)

Sector	One-year	Three-year	Five-year	Seven-year
	--Time horizon--			
Financial				
Weighted average	80.27	69.96	62.35	56.99
Average	83.06	75.79	67.86	61.63
Standard deviation	(20.43)	(14.79)	(16.36)	(16.02)
Nonfinancial				
Weighted average	80.80	72.66	68.86	67.13
Average	84.49	76.88	72.61	69.94
Standard deviation	(6.11)	(5.34)	(5.51)	(5.04)

Note: Numbers in parentheses are standard deviations. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Global Corporate Average Cumulative Default Rates By Rating (1981-2019)

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Default activity generally increased in 2019, with higher default rates for certain rating categories. Two defaults came from the 'BBB' category, marking the first year in the past three this rating category saw defaults. Among speculative-grade ratings, defaults were generally higher, with a slight increase in the 'B' category (to 1.5% from 0.99%) and 'CCC'/'C' category (to 30% from 27.2%) (see table 3).

Despite increased defaults, default rates across all rating categories outside of 'CCC'/'C' were either at or below their long-term weighted averages (see table 4). Once again, the default rate in the 'AAA' rating category was zero, consistent with historical trends.

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	2.33	0.00
1982	0.00	0.00	0.21	0.35	4.24	3.18	21.43
1983	0.00	0.00	0.00	0.34	1.16	4.70	6.67
1984	0.00	0.00	0.00	0.68	1.14	3.49	25.00
1985	0.00	0.00	0.00	0.00	1.50	6.53	15.38
1986	0.00	0.00	0.18	0.34	1.33	8.45	23.08
1987	0.00	0.00	0.00	0.00	0.38	3.13	12.28
1988	0.00	0.00	0.00	0.00	1.05	3.68	20.37
1989	0.00	0.00	0.18	0.61	0.73	3.40	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	3.09	16.67
1995	0.00	0.00	0.00	0.17	0.99	4.59	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	3.52	12.00
1998	0.00	0.00	0.00	0.41	0.82	4.64	42.86
1999	0.00	0.17	0.18	0.20	0.95	7.31	33.82
2000	0.00	0.00	0.27	0.37	1.16	7.71	35.96
2001	0.00	0.00	0.27	0.34	2.98	11.56	45.45
2002	0.00	0.00	0.00	1.02	2.90	8.20	44.44
2003	0.00	0.00	0.00	0.23	0.59	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	4.11	27.27
2009	0.00	0.00	0.22	0.55	0.75	11.01	49.46
2010	0.00	0.00	0.00	0.00	0.58	0.87	22.73
2011	0.00	0.00	0.00	0.07	0.00	1.68	16.42
2012	0.00	0.00	0.00	0.00	0.30	1.58	27.52
2013	0.00	0.00	0.00	0.00	0.10	1.65	24.67
2014	0.00	0.00	0.00	0.00	0.00	0.78	17.51
2015	0.00	0.00	0.00	0.00	0.16	2.41	26.67
2016	0.00	0.00	0.00	0.06	0.47	3.75	33.33

Table 3

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

	AAA	AA	A	BBB	BB	B	CCC/C
2017	0.00	0.00	0.00	0.00	0.08	1.00	26.45
2018	0.00	0.00	0.00	0.00	0.00	0.99	27.18
2019	0.00	0.00	0.00	0.11	0.00	1.49	30.05

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 4

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

	AAA	AA	A	BBB	BB	B	CCC/C
Minimum	0.00	0.00	0.00	0.00	0.00	0.25	0.00
Maximum	0.00	0.38	0.39	1.02	4.24	13.84	49.46
Weighted long-term average	0.00	0.02	0.05	0.16	0.61	3.33	27.08
Median	0.00	0.00	0.00	0.07	0.58	3.40	25.00
Standard deviation	0.00	0.07	0.10	0.26	1.00	3.28	11.36
2008 default rates	0.00	0.38	0.39	0.49	0.81	4.11	27.27
Latest four quarters (Q1 2019-Q4 2019)	0.00	0.00	0.00	0.11	0.00	1.49	30.05
Difference between last four quarters and weighted average	0.00	(0.02)	(0.05)	(0.06)	(0.61)	(1.84)	2.97
# of standard deviations	0.00	(0.29)	(0.54)	(0.22)	(0.61)	(0.56)	0.26

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

2019 Summary Findings

- Of the 118 corporate defaults in 2019, the majority (78) were from companies in the U.S. and associated tax havens (Bermuda and the Cayman Islands). The emerging markets region followed with 22 defaults, Europe with 15, and the other developed region (Australia, Canada, Japan, and New Zealand) with three.

- Distressed exchanges accounted for the largest share of defaults (among publicly rated companies) in 2019, with 34.8%, followed closely by missed interest or principal payments (33%) and Chapter 11 filings (28%). Three were the result of regulatory directives, while there was one Chapter 15 filing and one foreign bankruptcy.

- The global trailing-12-month speculative-grade default rate rose to 2.5% at the end of 2019 from 2.1% in 2018, remaining below its annual average of 4% (since 1981). The speculative-grade default rate rose in the U.S. (to 3.1%), Europe (2.2%), and emerging markets (1.8%) but fell in other developed countries (1.3%).

- All but two of the 94 defaulters that were rated by S&P Global Ratings at the beginning of the year were assigned speculative-grade ratings at that time. Of the rated companies that defaulted in 2019 (and that were rated as of Jan. 1, 2019), 84% were rated 'B-' or lower at the

start of the year.

- Consistent with the increase in the number of defaults in 2019, the volume of debt affected by default rose by 39.2% to $183.2 billion. The average amount of debt per defaulter in 2019 held steady with the 2018 average at $1.6 billion, which remains modestly higher than the post-Lehman Bros. (2009 onward) annual average of $1.4 billion.

- The largest default of the year was from Tennessee-based Community Health Systems Inc., with $23.4 billion (12.8%) of the outstanding debt for the year.

- Credit quality declined modestly in 2019. The proportion of downgrades and defaults among all rated issuers increased marginally, while upgrades fell to their lowest rate since 2009.

- Ratings stability (as measured by the proportion of ratings that didn't change) increased to 75.6% in 2019, its highest level since 1994, due to the lower upgrade rate and a slightly lower rate of withdrawn ratings (7.8%, from 8% in 2018).

- Global corporate bond issuance in 2019 totaled $4.4 trillion, up 17% from 2018. With the Fed and ECB both lowering interest rates, corporate bonds took on heightened appeal, with speculative-grade issuance rising roughly 47% over the 2018 total.

- Bond spreads in the U.S. tightened through most of 2019. Investment-grade spreads fell 51 basis points (bps), while speculative-grade spreads shed 82 bps.

- The percentage of defaulters with confidential ratings in 2019 held steady with the 2018 proportion, at 11%. Nearly half of the confidentially rated defaulters in 2019 were from China.

- Six of the total defaulters in 2019 were initially rated investment grade, and the other 112 (95% of the total) were initially rated speculative grade.

- Of these six that were initially investment grade, the average time to default--the time between first rating and date of default--was 19.7 years, with an associated standard deviation of 11.9 years. In contrast, the average time to default among entities initially rated speculative grade was 5.2 years, with an associated standard deviation of 5.5 years.

- The issuer with the longest time to default in 2019 was U.S.-based retailer Rite Aid Corp., with an initial issuer credit rating of 'A' as of Dec. 31, 1980, 38.8 years before the rating was lowered to 'SD' (selective default) in October 2019.

- The issuer with the shortest time to default (33 days) was a confidentially rated China-based consumer services firm. It defaulted on Oct. 27 after receiving an initial rating of 'CCC+'.

- There were no downgrades among the eight 'AAA' rated companies in 2019.

- At the end of 2019, speculative-grade issuers narrowly lost their majority status globally, accounting for 49.9% of rated issuers, after hitting 50.2% at the beginning of the year.

- S&P Global Ratings assigned initial ratings to 658 issuers in 2019, down from 879 issuers in 2018. Of these new issuers, 78% were rated speculative grade.

Annual Global Trends: Defaults Begin To Pick Up

The number of defaulters that began the year with active ratings rose to 94 in 2019 from 72 in 2018. This marks the highest count since 2016, when a wave of defaults within the energy and natural resources sector followed the prolonged collapse in oil prices that began in the second half of 2014 (see chart 5). Despite this increase, the default total in 2019 was still lower than the recent peak of 143 in 2016. Alongside the increase in the number of defaults in 2019, the total

amount of affected debt also increased, to $183.2 billion, from $131.7 billion in 2018 (see chart 6).

As in most years, the U.S. accounted for the majority of defaults in 2019, by both count and the amount of affected debt. The U.S. has the largest number of rated corporate issuers, accounting for roughly 45.7% of the global total at the start of 2019. With its highly developed financing markets, the U.S. also has a considerably higher share of speculative-grade companies than other regions, and U.S. issuers accounted for 52% of total speculative-grade companies globally as of the beginning of 2019.

The other developed region was the only one that saw a decline in the number of rated defaults from 2018, to only two from five. Both of these defaults were from Canada, with one from the energy and natural resources sector and another from leisure time/media.

Table 5

Largest Global Rated Defaulters By Year

Largest corporate defaulters by outstanding debt amount

Year defaulted	Issuer	Amount (mil. $)
1994	Confederation Life Insurance	2,415
1995	Grand Union Co./Grand Union Capital	2,163
1996	Tiphook Finance	700
1997	Flagstar Corp.	1,021
1998	Service Merchandise Co.	1,326
1999	Integrated Health Services Inc.	3,394
2000	Owens Corning	3,299
2001	Enron Corp.	10,779
2002	WorldCom Inc.	30,000
2003	Parmalat Finanziaria SpA	7,177
2004	RCN Corp.	1,800
2005	Calpine Corp.	9,559
2006	Pliant Corp.	1,644
2007	Movie Gallery Inc.	1,225
2008	Lehman Brothers Holdings Inc.	144,426
2009	Ford Motor Co.	70,989
2010	Energy Future Holdings Corp.	47,648
2011	Texas Competitive Electric Holdings Co. LLC	32,460
2012	BTA Bank J.S.C.	10,184
2013	Texas Competitive Electric Holdings Co. LLC	31,628
2014	Texas Competitive Electric Holdings Co. LLC	28,651
2015	Arch Coal Inc.	6,025
2016	Petroleos de Venezuela, S.A.	19,859
2017	Petroleos de Venezuela, S.A.	17,617
2018	iHeartCommunications Inc.	20,176
2019	Community Health Systems Inc.	23,432

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 5

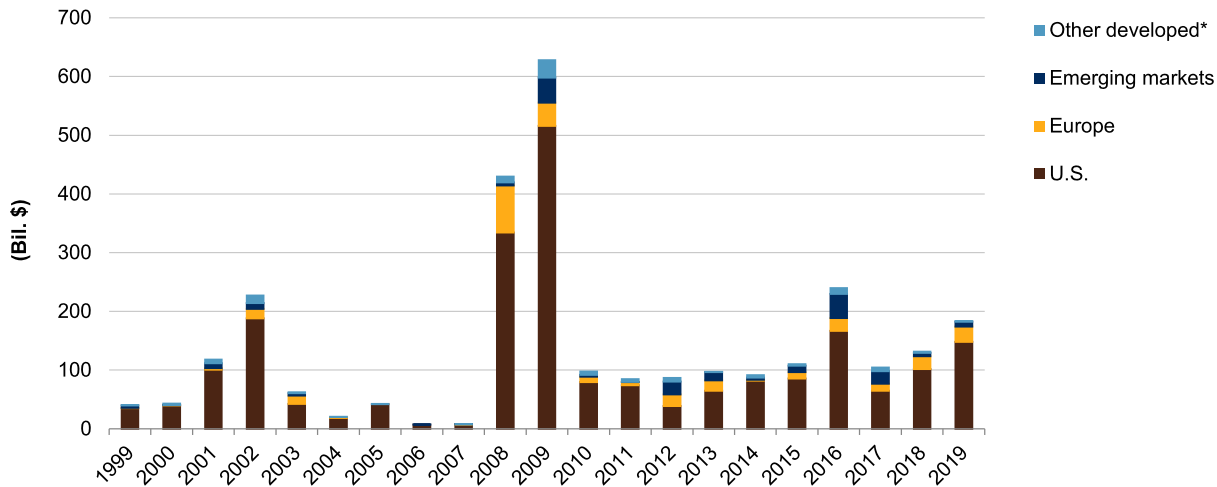## Annual Corporate Defaults By Number Of Issuers*
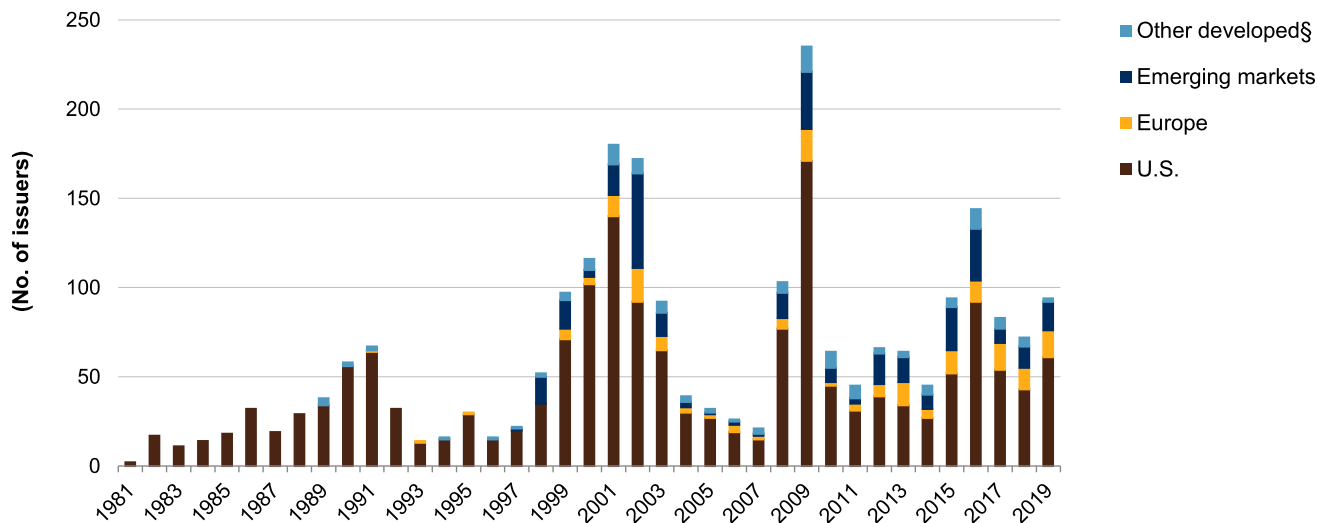
*Count excludes defaults that were not rated prior to Jan. 1 of each year. §Other developed is Australia, Canada, Japan, and New Zealand. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 6

Annual Global Corporate Defaulters' Debt Amounts Outstanding

*Other developed is Australia, Canada, Japan, and New Zealand. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Credit quality declined, but ratings stability increased

As the default rate rose globally, credit quality also showed a net decline in 2019, with more companies downgraded than upgraded. The share of companies upgraded fell to 6.3% in 2019, the lowest level in the past 10 years. Meanwhile, the rate of downgrades increased only marginally in 2019, to 9% from 8.8%, bringing the ratio of downgrades to upgrades up to 1.4% (see table 6). A ratio of 1% would indicate that the percentages of upgrades and downgrades were equal. The share of companies with ratings withdrawn during the year declined to under 8% in 2019, which helped to ultimately increase the stability rate to 75.6%, from 73.1% in 2018.

The single event that caused the most corporate downgrades in 2019 was the Aug. 16 downgrade of Argentina to 'B-' from 'B'. As a result, 24 corporate entities based in Argentina were downgraded four days later, most to 'B-' as well. Our downgrade of Argentina reflected further weakening of the sovereign's already vulnerable financial profile as a result of pronounced financial market turbulence following primary elections. A sharp depreciation of the currency and a spike in interest rates had led to a deeper, prolonged recession, higher inflation, and more stressed debt and financing dynamics.

Table 6

Summary Of Annual Corporate Rating Changes (%)*

Year	Issuers as of Jan. 1	Upgrades	Downgrades§	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
1981	1,350	9.85	13.33	0.15	2.07	25.41	74.59	1.35

Table 6

Summary Of Annual Corporate Rating Changes (%)* (cont.)

Year	Issuers as of Jan. 1	Upgrades	Downgrades§	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
1982	1,399	5.65	12.72	1.22	5.43	25.02	74.98	2.25
1983	1,421	7.18	11.96	0.77	5.14	25.05	74.95	1.67
1984	1,511	11.05	10.13	0.93	2.78	24.88	75.12	0.92
1985	1,599	7.75	13.70	1.13	4.07	26.64	73.36	1.77
1986	1,835	7.25	15.59	1.74	6.81	31.39	68.61	2.15
1987	1,991	7.18	12.00	0.95	9.14	29.28	70.72	1.67
1988	2,081	8.84	11.87	1.39	8.02	30.13	69.87	1.34
1989	2,122	9.71	11.07	1.79	7.59	30.16	69.84	1.14
1990	2,117	6.19	15.30	2.74	6.52	30.75	69.25	2.47
1991	2,053	6.09	14.27	3.26	3.56	27.18	72.82	2.34
1992	2,137	9.59	11.51	1.50	3.93	26.53	73.47	1.20
1993	2,321	8.57	9.26	0.60	8.23	26.67	73.33	1.08
1994	2,553	7.09	9.36	0.63	4.58	21.66	78.34	1.32
1995	2,862	9.08	9.89	1.05	4.58	24.60	75.40	1.09
1996	3,117	9.69	7.83	0.51	6.99	25.02	74.98	0.81
1997	3,478	9.23	7.96	0.63	7.48	25.30	74.70	0.86
1998	4,068	7.55	11.63	1.28	7.94	28.39	71.61	1.54
1999	4,518	5.95	12.04	2.15	8.96	29.11	70.89	2.02
2000	4,670	6.90	12.68	2.48	7.09	29.14	70.86	1.84
2001	4,745	5.96	16.65	3.79	7.48	33.89	66.11	2.79
2002	4,779	5.23	19.15	3.60	7.22	35.20	64.80	3.66
2003	4,777	6.49	14.61	1.93	7.33	30.35	69.65	2.25
2004	5,011	8.80	7.60	0.78	7.24	24.43	75.57	0.86
2005	5,301	12.88	9.21	0.60	8.39	31.09	68.91	0.71
2006	5,461	12.32	8.72	0.48	8.70	30.21	69.79	0.71
2007	5,648	13.54	9.31	0.37	10.64	33.87	66.13	0.69
2008	5,722	7.92	15.97	1.80	7.64	33.33	66.67	2.02
2009	5,606	4.82	19.10	4.19	8.79	36.91	63.09	3.97
2010	5,304	11.90	8.73	1.21	6.47	28.30	71.70	0.73
2011	5,622	12.20	11.97	0.80	7.77	32.75	67.25	0.98
2012	5,803	8.37	12.22	1.14	6.89	28.62	71.38	1.46
2013	6,035	11.45	9.35	1.06	6.69	28.55	71.45	0.82
2014	6,481	9.17	8.41	0.69	7.16	25.43	74.57	0.92
2015	6,901	7.35	11.81	1.36	8.29	28.81	71.19	1.61
2016	6,900	7.87	12.16	2.09	8.33	30.45	69.55	1.55

Table 6

Summary Of Annual Corporate Rating Changes (%)* (cont.)

| Year	Issuers as of Jan. 1	Upgrades	Downgrades§	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
2017	6,879	8.94	8.68	1.21	9.07	27.90	72.10	0.97
2018	6,959	9.01	8.77	1.03	8.05	26.86	73.14	0.97
2019	7,231	6.33	8.98	1.30	7.81	24.42	75.58	1.42
Weighted average		8.64	11.45	1.48	7.48	29.05	70.95	1.50
Average		8.49	11.68	1.44	6.95	28.56	71.44	1.54
Median		8.37	11.81	1.21	7.33	28.55	71.45	1.35
Standard deviation		2.21	2.99	0.97	1.88	3.41	3.41	0.77
Minimum		4.82	7.60	0.15	2.07	21.66	63.09	0.69
Maximum		13.54	19.15	4.19	10.64	36.91	78.34	3.97

*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 Ratings Research and S&P Global Market Intelligence's CreditPro®.

Large rating actions were less common

Despite a slight increase in the proportion of downgrades during the year, the number of large rating changes (which we define as those of more than six notches) declined in 2019. For the full year, there were only two large downgrades (and no large upgrades), compared with four large downgrades and no large upgrades in 2018 (see chart 7). For these counts of large downgrades, we include movements to 'D' (default) along with what we normally report as downgrades (that is, downward movements between active ratings). Both of the large downgrades in 2019 were from U.S.-based companies that defaulted during the year: Chesapeake Energy Corp. and Fusion Connect Inc.

Chart 7

## Count Of Global Corporate Issuers With "Big" Rating Moves
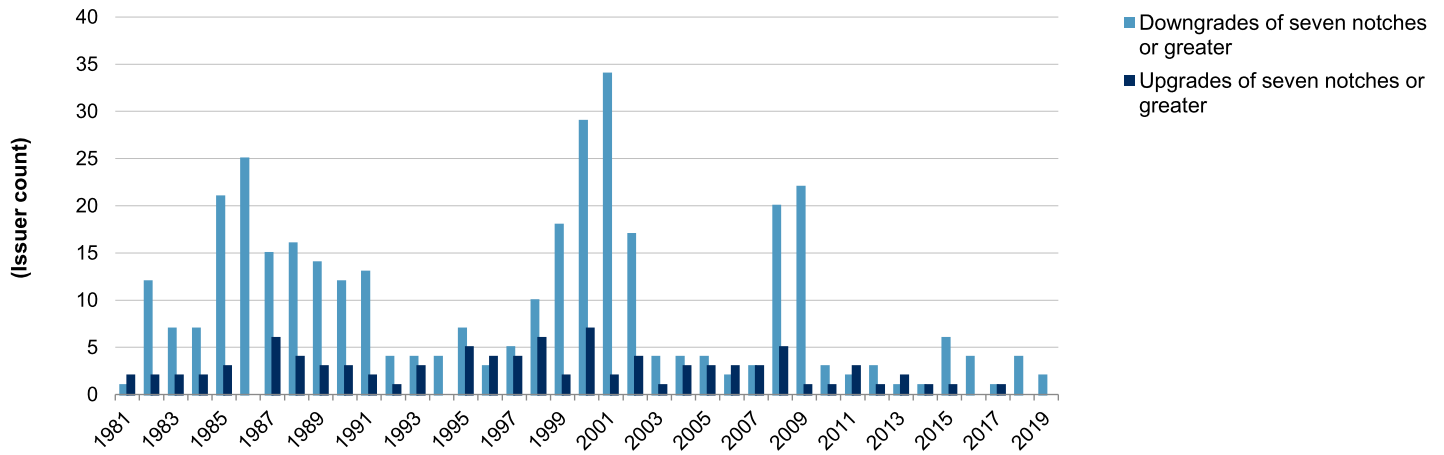
Note: "Big" rating moves are upgrades or downgrades of seven notches or greater. Downgrades include movements to default. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Companies that experience large downgrades are often outliers, especially in years of high credit stability. The average number of notches for an upgrade remained 1.10 in 2019, while downgrades moved by an average of 1.46 notches in 2019, the highest rate since 2010 (1.52 notches) (see chart 8).

Chart 8

Average Notch Movements Among Global Rating Actions
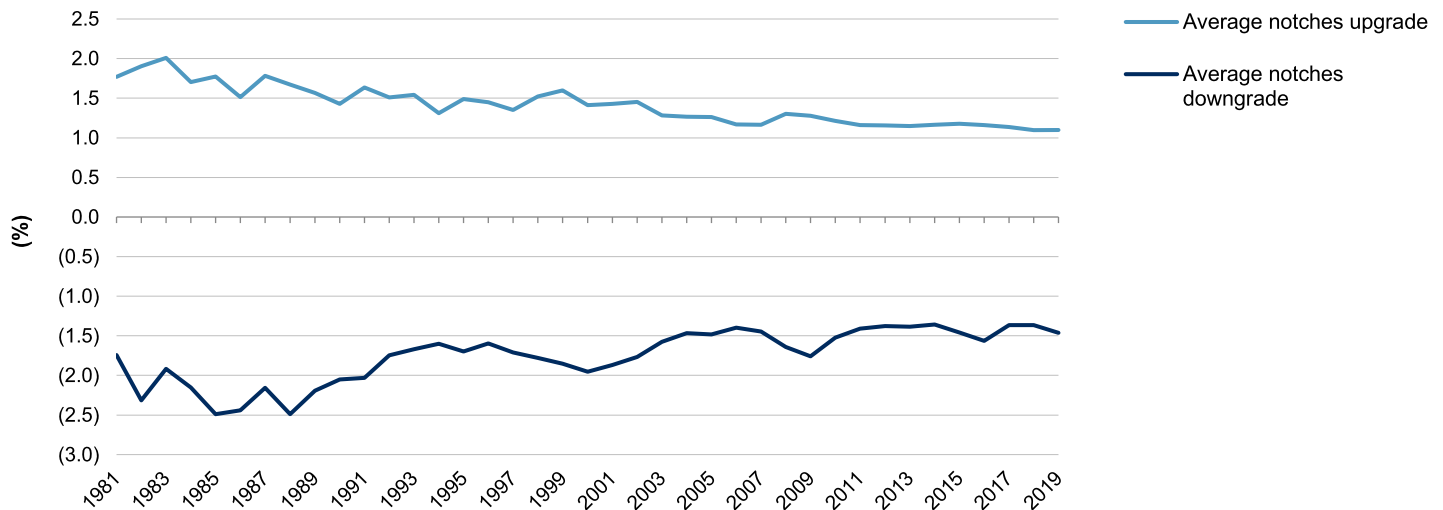
Note: Long-term average based on data from 1981-2019. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Regional default rates

The annual speculative-grade default rate increased in the U.S. to 3.1% in 2019 (from 2.4% in 2018) and in Europe to 2.2% (from 1.9%). In emerging markets, the speculative-grade default rate rose to 1.8% (from 1.4%), and in the other developed region, it fell to 1.3% (from 3.3%) (see table 7 and chart 21).

Table 7

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

Year	U.S. and tax havens*	Europe§	Emerging markets	Other†
1981	0.63	0.00	N/A	0.00
1982	4.49	0.00	N/A	0.00
1983	3.02	0.00	N/A	0.00
1984	3.36	0.00	N/A	0.00
1985	4.47	0.00	N/A	0.00
1986	5.84	0.00	N/A	0.00
1987	2.87	0.00	N/A	0.00
1988	3.93	0.00	N/A	0.00
1989	4.36	0.00	N/A	37.50
1990	7.94	0.00	N/A	28.57

Table 7

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

Year	U.S. and tax havens*	Europe§	Emerging markets	Other†
1991	10.73	50.00	N/A	25.00
1992	6.27	0.00	N/A	0.00
1993	2.41	20.00	0.00	0.00
1994	2.22	0.00	0.00	0.00
1995	3.66	9.09	0.00	0.00
1996	1.86	0.00	0.00	2.70
1997	2.18	0.00	0.00	1.92
1998	3.26	0.00	8.67	1.43
1999	5.25	6.32	7.69	4.40
2000	7.38	2.56	1.67	6.59
2001	10.63	8.46	6.34	12.36
2002	7.25	12.59	17.79	5.94
2003	5.60	3.73	3.95	4.76
2004	2.44	1.60	0.85	1.99
2005	2.02	0.94	0.25	1.30
2006	1.38	1.79	0.44	0.76
2007	1.02	0.96	0.20	2.26
2008	4.31	2.49	2.42	3.88
2009	11.81	8.59	5.51	9.76
2010	3.47	1.02	1.56	8.11
2011	2.16	1.59	0.48	6.25
2012	2.66	2.24	2.64	2.38
2013	2.19	3.43	2.02	2.01
2014	1.61	0.97	1.05	2.87
2015	2.86	2.11	3.08	2.84
2016	5.22	1.94	3.43	6.25
2017	3.09	2.41	0.96	3.64
2018	2.42	1.94	1.36	3.29
2019	3.11	2.21	1.78	1.29
Average	4.14	2.91	3.09	4.12
Median	3.26	2.03	1.73	3.08
Standard deviation	2.68	3.08	3.95	2.92
Minimum	0.63	0.00	0.00	0.76

Table 7

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

Year	U.S. and tax havens*	Europe§	Emerging markets	Other†
Maximum	11.81	12.59	17.79	12.36

Note: Descriptive statistics for regions other than U.S. calculated from 1996 to 2019 due to sample size considerations. *U.S., Bermuda, and Cayman Islands. §Austria, Belgium, British Virgin Islands, Bulgaria, Channel Islands, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Gibraltar, Greece, Guernsey, Hungary, Iceland, Ireland, Isle of Man, Italy, Jersey, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the U.K. †Australia, Canada, Japan, and New Zealand. N/A--Not available. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Tracking paths to default

Data on defaulted corporate issuers globally show 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 18.6% in the third year and 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 pattern, with the highest default rate observed in the first year, which is not surprising given the low rating and S&P Global Ratings' associated criteria (see "Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings," Oct. 1, 2012).

Chart 9

Tracking Global Corporate Default Rates From Initial Rating Category
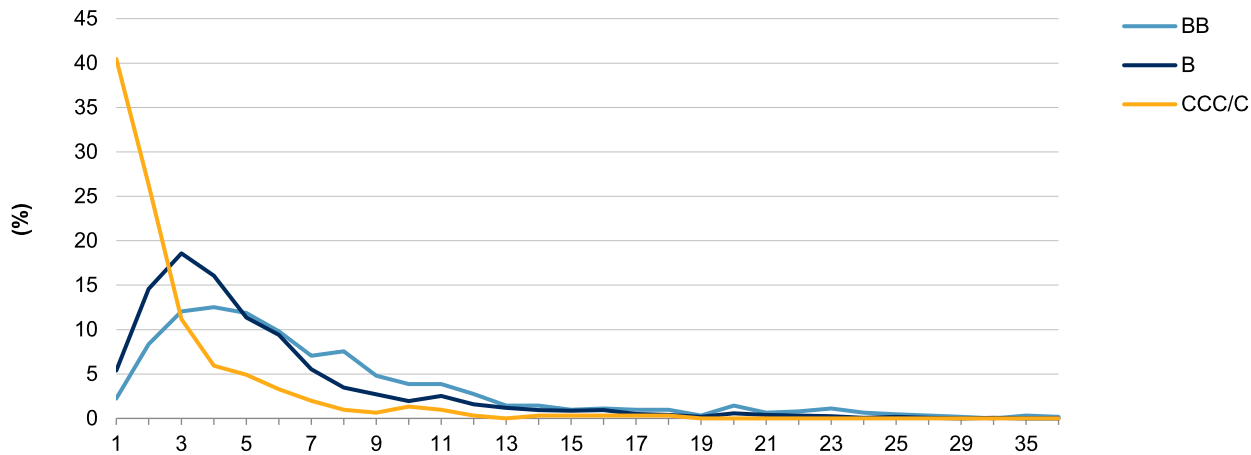
Note: Data based on universe of defaulters from 1981-2019. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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In 2019, 112 of the 118 defaults, or 94.9%, were from companies originally rated speculative grade, which is 7 percentage points higher than the long-term average of 87.7%. In years with

lower-than-average default rates, often more than 90% of defaulters were initially rated speculative grade, as 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 all of that period, it was at least one notch below that of the long-term equivalent.

Financial services companies are typically more sensitive to sudden declines in investor and stakeholder confidence than nonfinancial companies, which can contribute to a rapid decline in funding liquidity and credit quality. In turn, this can result in a relatively fast descent into default (see chart 11). This was especially evident during the global financial crisis, when many highly rated banks defaulted within a short amount of time after initial downgrades.

Over the long term (since 1981), financial services defaulters show a median rating of 'BB+' five years prior to default. But over the past three years--now that a decade has passed since the financial crisis of 2008-2009--financial services defaulters show a median rating in the 'B' category five years prior to default. Historically, nonfinancial defaulters tend to have a much smoother and shorter path to default (see chart 12). One key reason is that financial services companies typically start with investment-grade ratings, while most nonfinancial issuers have speculative-grade initial ratings, particularly over the past 10 years.

Another major difference between financial and nonfinancial companies is the incidence of default. Defaults are much less frequent for financial services companies than for nonfinancials, which can allow outliers to bias the averages. For instance, in the three years ended Dec. 31, 2019, 269 nonfinancial companies defaulted, while only 26 financials did. Despite the much smaller sample of financial services defaults over the past three years, all of these defaulters were rated in the lowest rating categories several years ahead of their eventual default.

Chart 10

Median Rating Path Of Corporate Defaulters
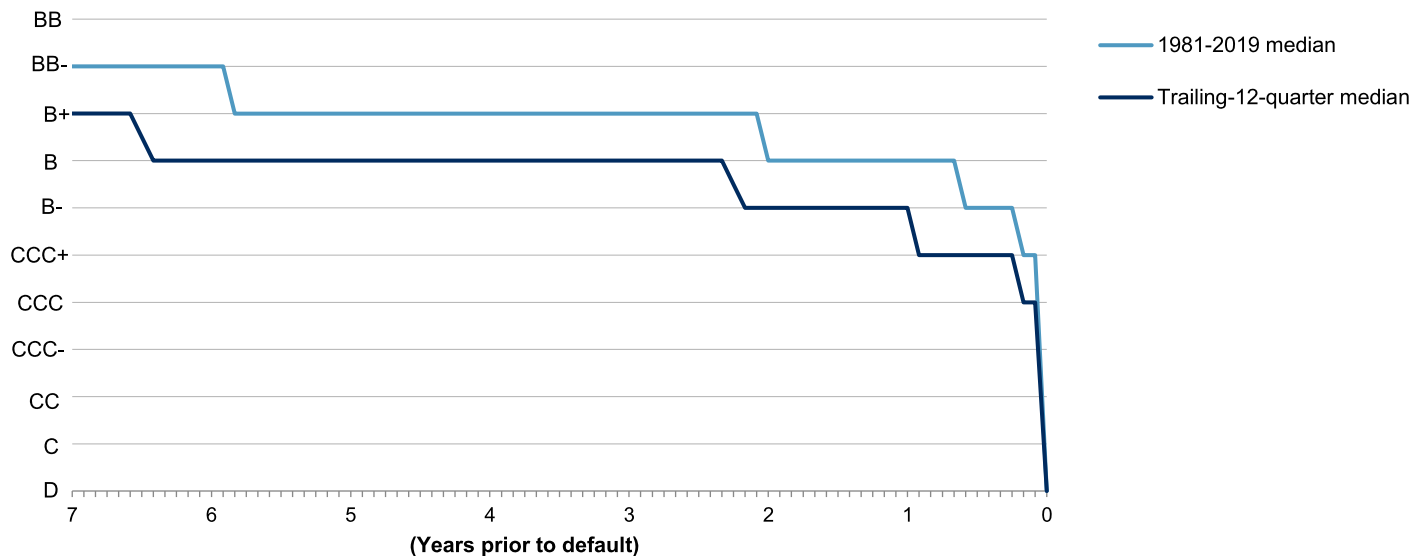
Note: Here, we do not include rating changes to 'NR'. Data through Dec. 31, 2019. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 11

Median Rating Path Of Financial Defaulters

Note: Here, we do not include rating changes to 'NR'. Financial sector includes insurance companies and financial institutions. Data through Dec. 31, 2019. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

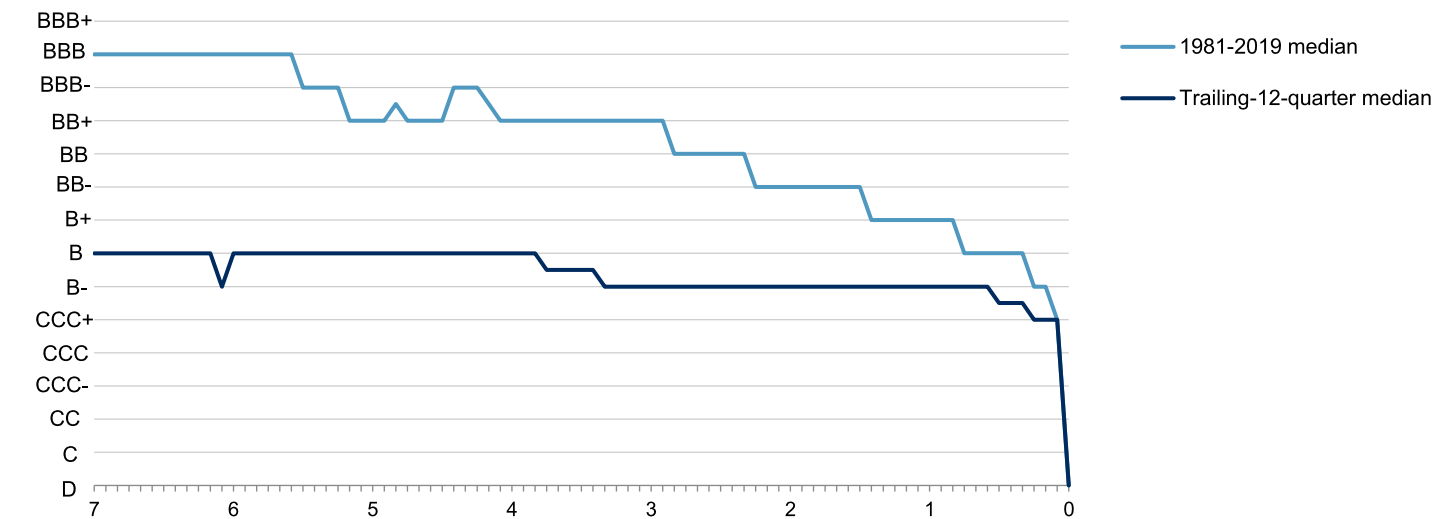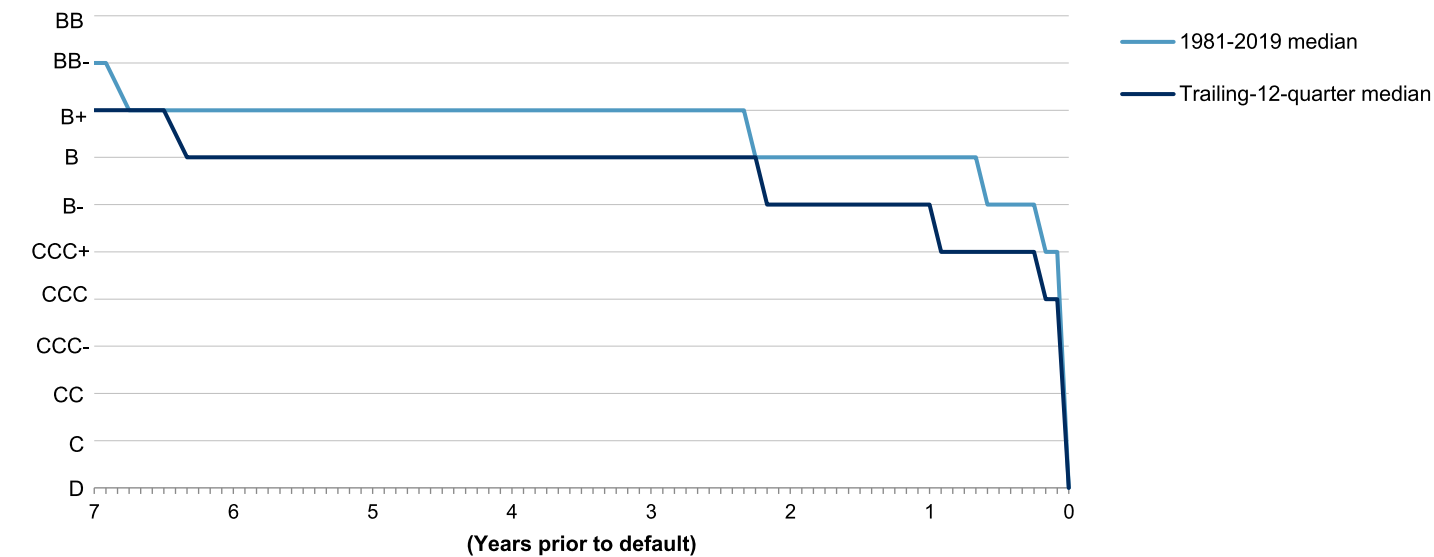## Median Rating Path Of Nonfinancial Defaulters

Note: Here, we do not include rating changes to 'NR'. Data through Dec. 31, 2019. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

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 an entity in the annual default rate calculations if it 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. Although defaulters that are not rated (NR) are not always captured in the default rate calculations 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.

Of the defaulted companies in 2019, 15.3% were not rated just prior to default, which is nearly as high as the long-term percentage, 16.9% (see chart 13). All of the defaulters in 2019 with active ratings immediately prior to default were rated in the lowest rating categories. Specifically, 80.5% were rated 'CCC+' or lower just prior to default, which is much higher than the 68% long-term average.

Chart 13a

Default Distribution By Rating Prior To 'D' (1981-2019)
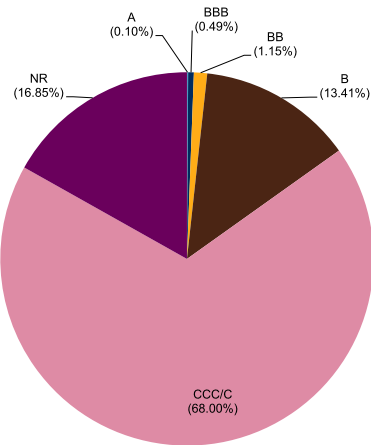
Chart 13b

Default Distribution By Rating Prior To 'D' (2019)
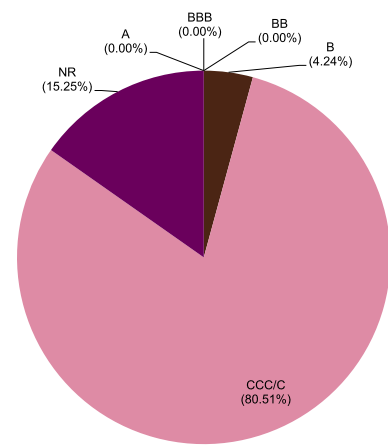
Table 8 provides a list of all the publicly rated companies that defaulted in 2019. For additional details on the 2019 defaulters, see Appendix III.

Table 8

2019 Global Publicly Rated Corporate Defaults

Company name	Reason for default	Country	Industry	Debt amount outstanding (mil. $)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Ultra Petroleum Corp.	Distressed exchange	U.S.	Energy and natural resources	2,575.0	1/2/2019	B+	-	B+	3/16/2017
API Heat Transfer Co.	Distressed exchange	U.S.	Aerospace/automotive/capital goods/metal	279.4	1/15/2019	CCC+	B-	B	4/23/2013
Pacific Gas & Electric Co.	Missed interest	U.S.	Utility	17,525.0	1/16/2019	A-	BBB	BBB-	4/16/2004
Shopko Stores Inc.	Chapter 11	U.S.	Consumer/service sector	0.0	1/16/2019	NR	NR	BBB+	2/26/1992
Ditech Holding Corp.	Missed interest	U.S.	Financial institutions	1,750.0	1/18/2019	-	-	CCC+	2/15/2018
PG&E Corp.	Chapter 11	U.S.	Utility	0.0	1/29/2019	A-	BBB	BBB+	3/10/2009
Eletson Holdings Inc.	Missed interest	Liberia	Transportation	614.1	1/30/2019	-	-	CCC	8/14/2018
New Look Retail Group Ltd.	Distressed exchange	U.K.	Consumer/service sector	1,657.4	1/31/2019	CCC+	B	B-	6/7/2013
Tsesnabank*	Distressed exchange	Kazakhstan	Financial institutions	33.9	2/1/2019	B+	B+	B-	8/15/2005
Charlotte Russe Inc.	Chapter 11	U.S.	Consumer/service sector	90.0	2/4/2019	-	-	CCC	2/26/2018
TRM Holdings Corp.	Chapter 11	U.S.	Consumer/service sector	0.0	2/6/2019	NR	NR	B	6/11/2012
Hornbeck Offshore Services Inc.	Distressed exchange	U.S.	Energy and natural resources	1,125.0	2/7/2019	CCC-	-	CCC-	8/18/2017

Table 8

2019 Global Publicly Rated Corporate Defaults (cont.)

Company name	Reason for default	Country	Industry	Debt amount outstanding (mil. $)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Fuse Media Inc.	Missed interest	U.S.	Leisure time/media	242.0	2/7/2019	CCC+	B-	B-	6/13/2014
Trident Holding Co. LLC	Chapter 11	U.S.	Health care/chemicals	0.0	2/10/2019	-	-	CCC+	6/28/2018
Payless Inc.	Chapter 11	U.S.	Consumer/service sector	280.0	2/19/2019	CCC	-	B-	8/22/2017
Novasep Holding S.A.S.	Distressed exchange	France	Health care/chemicals	206.0	2/21/2019	B-	B-	B-	8/21/2012
One Call Corp.	Distressed exchange	U.S.	Insurance	3,279.5	2/21/2019	B-	B-	B	12/5/2013
Windstream Holdings Inc.	Chapter 11	U.S.	Telecommunications	9,930.6	2/26/2019	-	-	CCC+	8/9/2018
Affinion Group Holdings Inc.	Missed interest	U.S.	Leisure time/media	1,982.6	3/8/2019	CCC+	-	CCC+	5/12/2017
CTI Foods Holding Co. LLC	Chapter 11	U.S.	Consumer/service sector	510.0	3/11/2019	B-	B	B+	5/9/2005
PHI Inc.	Chapter 11	U.S.	Energy and natural resources	500.0	3/15/2019	B	BB-	BB-	4/12/2002
Cloud Peak Energy Resources LLC	Missed interest	U.S.	Energy and natural resources	200.0	3/15/2019	B-	-	B-	10/17/2016
Imperial Metals Corp.	Distressed exchange	Canada	Energy and natural resources	325.0	3/15/2019	CCC-	CCC	B-	3/4/2014
Nyrstar N.V.	Missed interest	Belgium	Energy and natural resources	964.9	3/20/2019	B-	B-	B-	11/28/2014
Murray Energy Corp.	Distressed exchange	U.S.	Energy and natural resources	7,237.0	3/21/2019	-	-	CCC+	6/18/2018
Evergreen AcqCo1 LP d/b/a Savers	Distressed exchange	U.S.	Consumer/service sector	775.0	3/28/2019	CCC	B-	B	6/4/2013
Hexion Inc.	Chapter 11	U.S.	Health care/chemicals	3,591.0	4/1/2019	CCC+	CCC+	CCC+	6/29/2009
Southcross Energy Partners L.P.	Chapter 11	U.S.	Energy and natural resources	0.0	4/1/2019	CCC+	CCC+	B	7/10/2014
Monitronics International Inc.	Missed interest	U.S.	Consumer/service sector	1,685.0	4/2/2019	B-	B	B+	8/5/2003
Sungard Availability Services Capital Inc.	Chapter 11	U.S.	High tech/computers/office equipment	1,366.8	4/2/2019	CCC+	B-	B+	3/17/2014
Maxcom Telecomunicaciones S.A.B. de C.V.§	Distressed exchange	Mexico	Telecommunications	180.4	4/3/2019	CCC+	-	CCC+	5/26/2017
Bellatrix Exploration Ltd.	Missed interest	Canada	Energy and natural resources	250.0	4/3/2019	-	-	CCC	1/14/2019
Debenhams PLC	Distressed exchange	U.K.	Consumer/service sector	294.2	4/4/2019	BB-	BB-	BB-	5/4/2004
Fusion Connect Inc.	Missed principal	U.S.	Telecommunications	680.0	4/4/2019	B	-	B	2/20/2018
Curvature Inc.	Distressed exchange	U.S.	High tech/computers/office equipment	663.5	4/5/2019	B-	-	B	9/13/2016

Table 8

2019 Global Publicly Rated Corporate Defaults (cont.)

Company name	Reason for default	Country	Industry	Debt amount outstanding (mil. $)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
MIE Holdings Corp.	Distressed exchange	Cayman Islands	Energy and natural resources	500.0	4/12/2019	CCC-	-	CCC-	8/29/2017
Jones Energy Inc.	Chapter 11	U.S.	Energy and natural resources	500.0	4/14/2019	NR	NR	B	3/24/2014
Crossmark Holdings Inc.	Missed principal/interest	U.S.	Consumer/service sector	586.3	4/15/2019	CCC	B-	B	1/15/2013
Bristow Group Inc.	Missed interest	U.S.	Energy and natural resources	800.0	4/16/2019	B	BB-	BB	11/21/1996
Senvion Holding GmbH	Missed interest	Germany	Aerospace/automotive/capital goods/metal	587.1	5/2/2019	B+	B+	B+	8/7/2015
Parq Holdings L.P.	Missed interest	Canada	Leisure time/media	290.6	5/2/2019	B-	B-	B-	11/12/2014
Hospital Acquisition LLC (d/b/a LCI Holding Co. LLC)	Chapter 11	U.S.	Health care/chemicals	0.0	5/6/2019	NR	B-	B-	5/8/2013
Preferred Proppants LLC	Distressed exchange	U.S.	Energy and natural resources	425.0	5/9/2019	CCC	B	B	8/1/2014
USJ Acucar e Alcool S/A	Distressed exchange	Brazil	Consumer/service sector	275.0	5/22/2019	CCC+	CCC-	CCC-	5/17/2016
White Star Petroleum LLC	Chapter 11	U.S.	Energy and natural resources	0.0	5/28/2019	NR	-	CCC+	7/26/2016
Sheridan Investment Partners I LLC	Missed interest	U.S.	Financial institutions	1,155.0	5/31/2019	CCC+	CCC-	CCC-	2/8/2016
Sheridan Investment Partners II L.P.	Missed interest	U.S.	Financial institutions	1,188.0	5/31/2019	CCC+	CCC-	CCC-	2/8/2016
FTD Inc.	Chapter 11	U.S.	Consumer/service sector	0.0	6/3/2019	NR	NR	B+	1/29/2004
Legacy Reserves L.P.	Missed interest	U.S.	Energy and natural resources	850.0	6/4/2019	-	-	CCC	9/28/2018
The Neiman Marcus Group LLC	Distressed exchange	U.S.	Consumer/service sector	1,697.7	6/11/2019	CCC	B-	BBB	4/30/1998
New Academy Holding Co. LLC	Distressed exchange	U.S.	Consumer/service sector	1,825.0	6/14/2019	CCC+	B	B	4/9/2014
Denbury Resources Inc.	Distressed exchange	U.S.	Energy and natural resources	7,641.7	6/19/2019	CCC+	-	CCC+	2/15/2018
Galapagos Holding S.A.	Distressed exchange	Luxembourg	Aerospace/automotive/capital goods/metal	1,199.1	6/21/2019	CCC+	B	B	10/1/2014
Cell C (Pty) Ltd.	Distressed exchange	South Africa	Telecommunications	184.0	6/26/2019	CCC+	-	B-	8/7/2017
Mood Media Corp.	Distressed exchange	U.S.	Leisure time/media	187.9	6/28/2019	B-	-	B-	6/30/2017
Weatherford International PLC	Chapter 11	Ireland	Energy and natural resources	9,423.0	7/2/2019	B	BB-	BB+	11/17/2015

Table 8

2019 Global Publicly Rated Corporate Defaults (cont.)

Company name	Reason for default	Country	Industry	Debt amount outstanding (mil. $)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
PES Holdings LLC	Missed principal/interest	U.S.	Energy and natural resources	619.5	7/3/2019	-	-	B-	9/11/2018
Stearns Holdings LLC	Chapter 11	U.S.	Financial institutions	250.0	7/11/2019	B	B+	B+	7/30/2013
American Energy Permian Holdings LLC	Missed interest	U.S.	Energy and natural resources	2,767.0	7/18/2019	NR	NR	B	10/30/2014
Blackhawk Mining LLC	Chapter 11	U.S.	Energy and natural resources	0.0	7/19/2019	NR	NR	B	5/5/2015
99 Cents Only Stores LLC	Distressed exchange	U.S.	Consumer/service sector	684.0	7/23/2019	CCC+	-	CCC+	12/19/2017
Avianca Holdings S.A.	Missed principal	Panama	Transportation	1,045.0	7/23/2019	B	B	B+	4/25/2013
Barneys New York Inc.	Chapter 11	U.S.	Consumer/service sector	0.0	8/6/2019	NR	NR	B-	5/9/2012
Halcon Resources Corp.	Chapter 11	U.S.	Energy and natural resources	625.0	8/7/2019	B-	-	B-	9/21/2016
Sanchez Energy Corp.	Chapter 11	U.S.	Energy and natural resources	2,150.0	8/12/2019	B	B	B-	6/4/2013
Maxcom Telecomunicaciones S.A.B. de C.V.	Distressed exchange	Mexico	Telecommunications	180.4	8/21/2019	-	-	CCC	4/5/2019
Burger BossCo Intermediate Inc.	Distressed exchange	U.S.	Consumer/service sector	217.5	9/3/2019	B-	-	B-	7/10/2018
Alta Mesa Resources Inc.	Chapter 11	U.S.	Energy and natural resources	500.0	9/12/2019	-	-	B	9/17/2018
Chesapeake Energy Corp.	Distressed exchange	U.S.	Energy and natural resources	9,492.5	9/13/2019	B	-	CCC+	9/29/2016
PT Delta Merlin Dunia Textile	Missed interest	Indonesia	Consumer/service sector	300.0	9/13/2019	-	-	BB-	3/13/2019
EP Energy LLC	Missed interest	U.S.	Energy and natural resources	5,650.0	9/17/2019	CCC+	-	CCC+	1/8/2018
Thomas Cook Group PLC	Foreign bankruptcy	U.K.	Leisure time/media	1,265.0	9/24/2019	B+	B	BB-	3/29/2011
Premiere Global Services Inc.	Distressed exchange	U.S.	High tech/computers/office equipment	715.0	9/27/2019	B-	B	B	1/28/2016
Acosta Inc.	Missed principal	U.S.	Consumer/service sector	3,041.9	10/2/2019	CCC+	B	B+	3/10/2011
Syncreon Group Holdings B.V.	Distressed exchange	Netherlands	Aerospace/automotive/capital goods/metal	1,200.5	10/2/2019	CCC+	B-	B	9/30/2013
Deluxe Entertainment Services Group Inc.	Chapter 11	U.S.	Leisure time/media	953.0	10/3/2019	B-	B-	B	1/13/2006

Table 8

2019 Global Publicly Rated Corporate Defaults (cont.)

Company name	Reason for default	Country	Industry	Debt amount outstanding (mil. $)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Murray Energy Corp.§	Missed principal	U.S.	Energy and natural resources	5,817.0	10/4/2019	-	-	CCC+	3/26/2019
Medical Depot Holdings Inc.	Distressed exchange	U.S.	Health care/chemicals	459.0	10/7/2019	B-	-	B	11/14/2016
Jain Irrigation Systems Ltd.	Missed interest	India	Aerospace/automotive/capital goods/metal	200.0	10/14/2019	B+	-	B+	4/7/2017
Rite Aid Corp.	Distressed exchange	U.S.	Consumer/service sector	5,400.0	10/15/2019	B	B	A	12/31/1980
CDR HRB Holdings Inc.	Missed principal	U.S.	Consumer/service sector	250.0	10/17/2019	CCC	-	B	3/13/2017
DURA Automotive Systems LLC	Chapter 11	U.S.	Aerospace/automotive/capital goods/metal	0.0	10/17/2019	-	-	B	3/22/2019
Destination Maternity Corp.	Chapter 11	U.S.	Consumer/service sector	0.0	10/21/2019	NR	NR	B+	7/17/1995
Foresight Energy L.P.	Missed interest	U.S.	Aerospace/automotive/capital goods/metal	1,420.0	10/31/2019	B-	B-	B-	9/21/2016
One Call Corp.§	Distressed exchange	U.S.	Insurance	3,279.5	10/31/2019	-	-	CCC	3/1/2019
Hovnanian Enterprises Inc.	Distressed exchange	U.S.	Forest and building products/homebuilders	1,753.2	11/6/2019	CCC+	-	CCC+	2/6/2018
Dean Foods Co.	Chapter 11	U.S.	Consumer/service sector	700.0	11/12/2019	BB-	BB-	BB+	3/18/1998
APC Automotive Technologies Intermediate Holdings LLC	Distressed exchange	U.S.	Aerospace/automotive/capital goods/metal	663.0	11/13/2019	B-	-	B	4/24/2017
IPC Corp.	Distressed exchange	U.S.	Telecommunications	1,479.1	11/14/2019	B-	B	B	1/7/2015
Approach Resources Inc.	Chapter 11	U.S.	Energy and natural resources	0.0	11/18/2019	NR	-	CCC+	4/25/2017
Bumble Bee Holdings Inc.	Chapter 11	U.S.	Consumer/service sector	0.0	11/21/2019	NR	B-	B+	12/4/2009
Community Health Systems Inc.	Distressed exchange	U.S.	Health care/chemicals	23,432.3	11/25/2019	CCC+	-	CCC+	6/28/2018
AAC Holdings Inc.	Missed principal	U.S.	Health care/chemicals	330.0	11/25/2019	B-	-	B-	6/6/2017
USJ Acucar e Alcool S/A	Missed principal/interest	Brazil	Consumer/service sector	275.0	11/28/2019	-	-	CCC+	5/27/2019
Shandong Yuhuang Chemical Co. Ltd.	Missed principal	China	Health care/chemicals	300.0	11/29/2019	B+	-	B+	3/14/2017
McDermott International Inc.	Missed interest	Panama	Aerospace/automotive/capital goods/metal	4,860.0	12/3/2019	B+	B+	B+	11/26/2014
Indra Holdings Corp.	Missed principal	U.S.	Consumer/service sector	245.0	12/4/2019	CCC+	B-	B	4/15/2014

Table 8

2019 Global Publicly Rated Corporate Defaults (cont.)

Company name	Reason for default	Country	Industry	Debt amount outstanding (mil. $)	Default date	Rating one year prior to default	Rating three years prior to default	First rating	Date of first rating
Mallinckrodt PLC	Distressed exchange	Ireland	Health care/chemicals	7,012.0	12/6/2019	B+	BB-	BBB-	3/18/2013
Tapstone Energy LLC	Missed interest	U.S.	Energy and natural resources	300.0	12/10/2019	B-	-	B-	5/3/2017
4L Technologies Inc.	Chapter 11	U.S.	High tech/computers/office equipment	760.0	12/12/2019	B-	B	B+	4/3/2014
PizzaExpress Financing 1 PLC	Distressed exchange	U.K.	Consumer/service sector	914.6	12/13/2019	CCC+	B	B	11/3/2014
Novartex	Missed principal	France	Consumer/service sector	0.0	12/17/2019	CCC	-	CCC	7/6/2017
Bankmed S.A.L.	Regulatory directive	Lebanon	Financial institutions	0.0	12/18/2019	B-	B-	BB-	8/7/1997
Bank Audi S.A.L.	Regulatory directive	Lebanon	Financial institutions	0.0	12/18/2019	B-	B-	BB-	8/27/1997
Blom Bank S.A.L.	Regulatory directive	Lebanon	Financial institutions	0.0	12/18/2019	B-	B-	BB-	11/17/1997
Total				181,614.5					

Note: This total does not match table 1 because it excludes confidentially rated defaults. *Name changed to First Heartland Jusan Bank JSC in April 2019. §Initial ratings for these companies are those immediately following a prior default in 2019. Initial ratings, or those as of Dec. 31, 1980. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's 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	0.34	0.00	0.00	0.70	0.00	0.00	2.86	7.04	2.22	2.33	8.33	21.43
1983	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	2.17	0.00	1.59	1.25	10.00	5.26	6.67
1984	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	1.64	1.49	2.17	3.57	8.33	25.00
1985	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67	1.49	1.37	2.63	13.11	8.33	15.38
1986	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.79	0.00	1.82	1.19	1.16	4.73	12.16	17.07	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	0.84	1.33	5.95	6.98	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	2.02	4.50	10.00	20.37
1989	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.90	0.80	0.00	0.00	2.04	0.43	7.80	5.00	33.33
1990	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.00	1.10	2.82	3.06	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	0.75	0.00	3.77	1.12	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	1.96	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	0.87	0.00	1.84	6.67	3.13	16.67

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
1995	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	1.57	1.12	2.77	8.08	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	0.66	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	5.34	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	0.73	2.61	7.56	9.46	42.86
1999	0.00	0.00	0.00	0.36	0.00	0.25	0.28	0.00	0.28	0.31	0.55	1.34	0.91	4.24	10.45	15.60	33.82
2000	0.00	0.00	0.00	0.00	0.00	0.24	0.58	0.00	0.26	0.89	0.00	0.82	2.08	5.83	10.08	11.61	35.96
2001	0.00	0.00	0.00	0.00	0.57	0.25	0.00	0.24	0.49	0.28	0.52	1.22	5.65	5.84	17.32	22.63	45.45
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.88	1.08	1.59	1.79	4.84	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	1.73	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	2.36	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	2.65	2.96	9.09
2006	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.50	0.55	0.82	1.57	13.33
2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.24	0.19	0.00	0.90	15.24
2008	0.00	0.00	0.44	0.41	0.32	0.21	0.60	0.19	0.61	0.73	1.23	0.66	0.68	3.16	3.48	7.59	27.27
2009	0.00	0.00	0.00	0.00	0.30	0.40	0.00	0.42	0.19	1.13	0.00	1.05	0.98	6.02	10.89	18.18	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	0.37	0.57	0.00	0.75	2.15	22.73
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.42	1.29	4.51	16.42
2012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.61	1.45	3.53	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	4.72	24.67
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	2.77	17.51
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	1.76	2.04	4.31	26.67
2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.24	0.00	1.10	0.93	2.33	10.76	33.33
2017	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.42	0.44	2.89	26.45
2018	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	0.95	2.11	27.18
2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	1.18	0.68	3.33	30.05
Average	0.00	0.00	0.01	0.02	0.04	0.05	0.07	0.12	0.21	0.25	0.49	0.70	1.19	2.08	5.85	8.77	24.34
Median	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.68	1.33	4.50	6.98	25.00
Standard deviation	0.00	0.00	0.07	0.09	0.13	0.11	0.20	0.29	0.34	0.42	0.89	0.82	1.64	2.04	4.91	7.44	11.36
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	0.57	0.40	0.78	1.10	1.45	1.37	3.77	3.06	7.04	8.72	17.32	32.43	49.46

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Quarterly Trends

On a year-over-year basis, the number of rated defaults globally was higher in every quarter of 2019 except the first quarter (see chart 14). In every quarter, the U.S. dominated the default tally,

though to a decreasing rate as the year unfolded.

As in 2018, the first quarter saw the largest amount of debt affected by default in 2019 (see chart 15). And throughout most of the year, the U.S. accounted for the vast majority of this debt. The largest defaulter in 2019 was the U.S. health care company Community Health Systems Inc., which had $23.4 billion in associated debt at the time of default. This was the largest default since 2014, when Texas Competitive Electric Holdings Co. LLC defaulted with $28.7 billion in associated debt (see table 5).

Chart 14

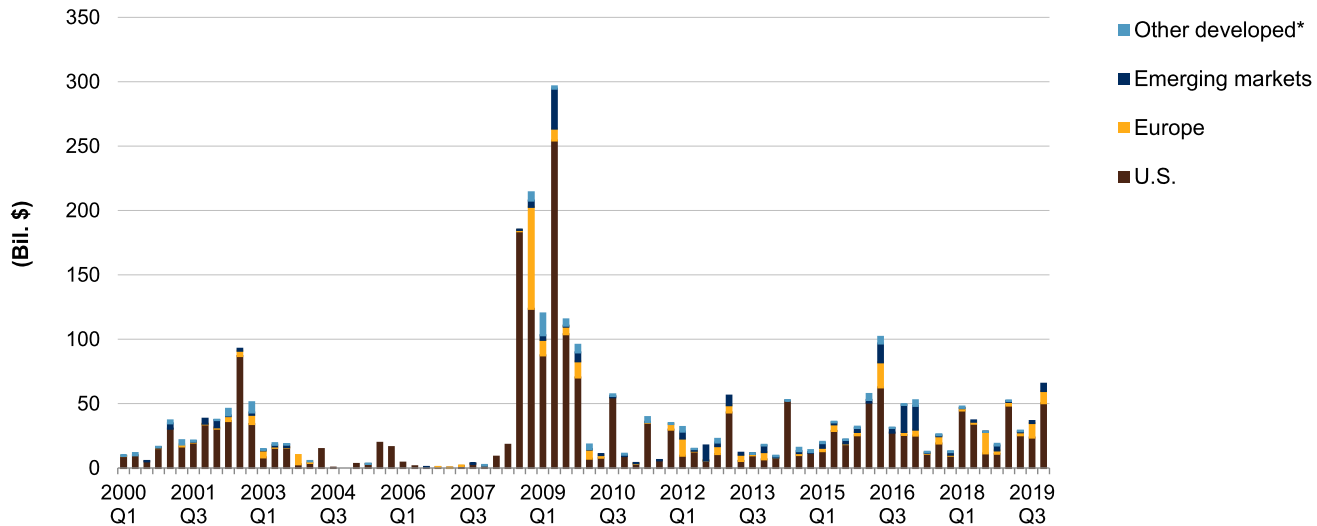## Quarterly Corporate Defaults By Number Of Issuers*
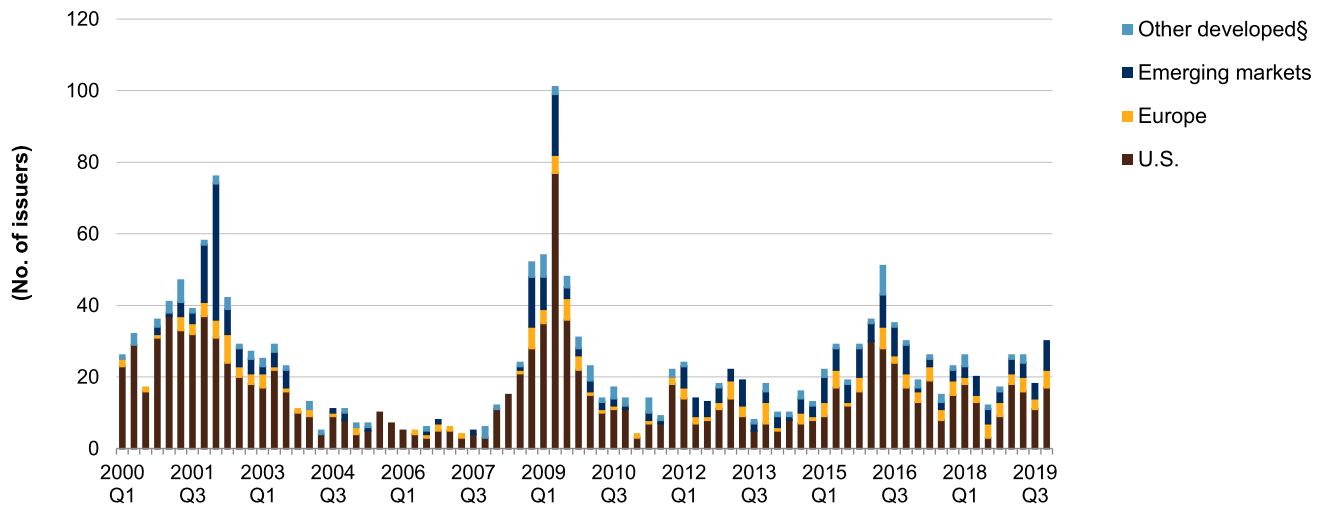
*Count excludes defaults that were not rated one quarter prior to default. §Other developed is Australia, Canada, Japan, and New Zealand. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 15

Quarterly Global Corporate Defaulters' Debt Amounts Outstanding

*Other developed is Australia, Canada, Japan, and New Zealand. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

The trailing-12-month and annual default rates have become standard measures, but default rates measured over shorter time frames give a more immediate picture of credit market conditions. Based on quarterly intervals of measurement (nonannualized), default rates reached their highest point in roughly the past three years in the fourth quarter of 2019 (see chart 16), even though the third quarter recorded the lowest quarterly default rates in all regions in 2019.

Despite these increases, all regional quarterly default rates finished the year below their long-term averages--albeit marginally--except the emerging markets rate, which finished the year at 0.9%, above the long-term average of 0.75%. With the exception of the U.S. during the second quarter of 2017 and first quarter of 2018, no major region has had a quarterly default rate above 1% since the third quarter of 2016.

Chart 16

Quarterly Speculative-Grade Default Rates By Region
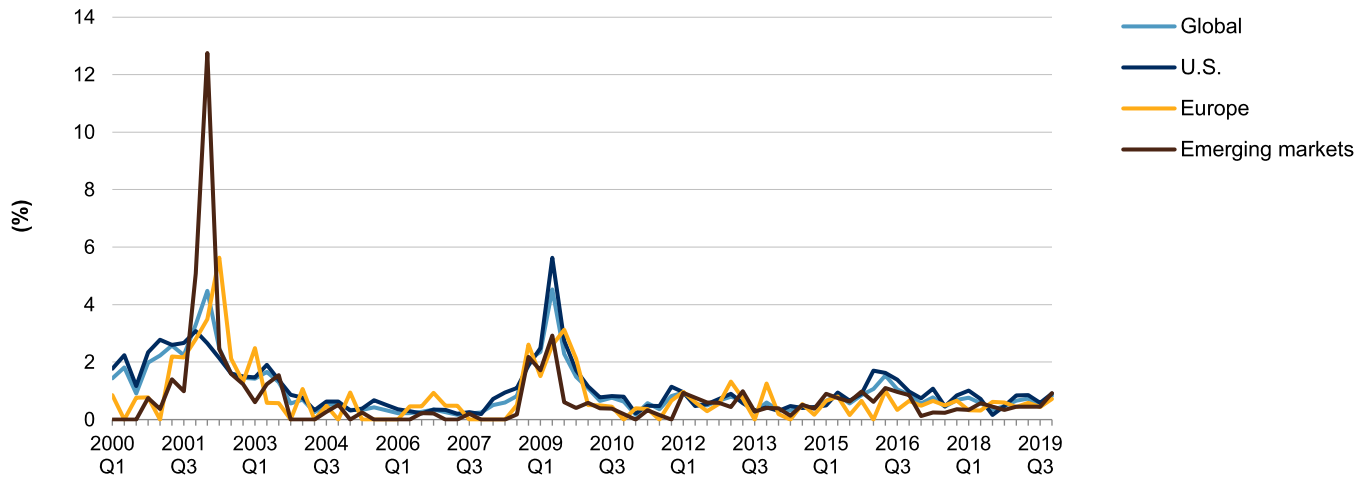
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Lower Ratings Are More Vulnerable To Default

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 in this study (1981-2019), the average times to default for issuers originally rated in the 'A' and 'B' categories were 13.8 years and 4.9 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 2.2 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.

In both cases, the standard deviation of the times to default generally shrinks 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 than when based on subsequent ratings, particularly for speculative-grade ratings.

Table 10

Time To Default From Original Rating For Global Corporate Defaulters (1981-2019)

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

Table 10

Time To Default From Original Rating For Global Corporate Defaulters (1981-2019) (cont.)

Original rating	Defaults	Average years from original rating*	Median years from original rating	Standard deviation of years from original rating	Range
AA	30	16.0	16.8	9.2	35.7
A	99	13.8	10.8	8.8	37.2
BBB	215	9.1	7.2	6.7	36.1
BB	623	6.9	5.3	5.6	35.8
B	1,593	4.9	3.6	4.1	30.5
CCC/C	304	2.2	1.3	2.8	17.4
Total	2,872	5.8	4.0	5.5	38.8

*Or Dec. 31, 1980, whichever is later. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 11

Time To Default From Post-Original Ratings For Global Corporate Defaulters (1981-2019)

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	14.1	15.5	8.9
A	11.2	9.6	8.2
BBB	8.2	6.4	6.9
BB	5.9	4.0	5.7
B	3.1	1.8	3.8
CCC/C	0.9	0.3	1.6
NR	4.9	2.9	5.3
Total	3.3	1.3	4.8

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 12 shows the cumulative distribution of defaulters by timeline, based on the original rating. The first row shows the ratings distribution of defaults occurring within 12 months of the original rating. The second row shows the distribution of the cumulative count of defaults occurring within three years of the original rating. In line with expectations, the majority of companies that defaulted within one year of the original rating are from the lowest speculative-grade rating categories, 'B' and lower. For example, of the 225 companies that defaulted within 12 months of having been rated, 208 (or 92.4%) were originally in the 'B' or 'CCC'/'C' categories.

Only in longer time frames do companies with higher original ratings surface among the defaulters. For example, of all the companies that defaulted during 1981-2019, only two entities rated 'AAA' at inception defaulted within seven years. Throughout the 39-year span, only eight companies initially rated 'AAA' have ever defaulted. These were Macy's Inc., Ally Financial Inc., Ambac Assurance Corp., Mutual Benefit Life Insurance Co., Executive Life Insurance Co. CA,

Confederation Life Insurance Co., Motors Liquidation Co. (formerly known as General Motors Corp.), and Eastman Kodak Co.

Table 12

Cumulative Defaulters By Time Horizon Among Global Corporates, From Original Rating (1981-2019)*

# issuers	AAA	AA	A	BBB	BB	B	CCC/C	Total
Defaulting within								
One year	0	0	0	3	14	85	123	225
Three years	0	1	6	29	140	610	237	1,023
Five years	0	3	13	71	293	1,051	270	1,701
Seven years	2	6	28	103	398	1,289	286	2,112
Total	8	30	99	215	623	1,593	304	2,872
Percent of total defaults per time frame								
One year	0.0	0.0	0.0	1.3	6.2	37.8	54.7	
Three years	0.0	0.1	0.6	2.8	13.7	59.6	23.2	
Five years	0.0	0.2	0.8	4.2	17.2	61.8	15.9	
Seven years	0.1	0.3	1.3	4.9	18.8	61.0	13.5	
Total	0.3	1.0	3.4	7.5	21.7	55.5	10.6	

*Or Dec. 31, 1980, whichever is later. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 13 shows the cumulative defaults over various time horizons from all ratings received subsequent to initial ratings. Each issuer is likely to be captured multiple times, in line with its migration from one rating to another, so the total count in table 13 is different from that in table 12. For example, 10 companies rated 'A' at any point in their lifetimes (excluding initial ratings) defaulted within one year of receiving this rating.

In table 13, the times to default are from the date that each entity received each unique rating in its path to default. In contrast, table 21 reports transition-to-default rates using the static pool methodology, which calculates movements to default from the beginning of each static pool year. This usually leads to shorter time frames from which to calculate default statistics. Data provided in table 13 also differ from default rates in table 24 owing to the use of the static pool methodology. (For more information on methodologies and definitions, see Appendix I.)

Table 13

Cumulative Defaulters By Time Horizon Among Global Corporates, From Post-Original Ratings (1981-2019)

# issuers	AAA	AA	A	BBB	BB	B	CCC/C	NR	Total
Defaulting within									
One year	0	0	10	71	178	1,033	2,583	140	4,015
Three years	0	7	42	148	444	2,028	3,124	326	6,119
Five years	0	9	63	205	615	2,480	3,236	423	7,031
Seven years	0	15	76	265	747	2,714	3,280	492	7,589
Total	3	48	212	502	1,085	3,074	3,331	647	8,902

Table 13

Cumulative Defaulters By Time Horizon Among Global Corporates, From Post-Original Ratings (1981-2019) (cont.)

# issuers	AAA	AA	A	BBB	BB	B	CCC/C	NR	Total
Percent of total defaults per time frame									
One year	0.0	0.0	0.2	1.8	4.4	25.7	64.3	3.5	
Three years	0.0	0.1	0.7	2.4	7.3	33.1	51.1	5.3	
Five years	0.0	0.1	0.9	2.9	8.7	35.3	46.0	6.0	
Seven years	0.0	0.2	1.0	3.5	9.8	35.8	43.2	6.5	
Total	0.0	0.5	2.4	5.6	12.2	34.5	37.4	7.3	

NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Defaults arise disproportionately from low rating categories, and this holds true over longer time horizons (see table 14). For example, 389 defaults were recorded in the five-year pool that began in January 2015, of which 382 were rated speculative grade on Jan. 1, 2015. (See table 15 for the seven publicly rated investment-grade defaults during this period.) Lower-rated companies also exhibit lower survival (nondefault) rates over time.

The nonfinancial sectors tend to have a much higher share of companies rated speculative grade, with 60.7% globally as of the beginning of 2019, compared with just 25% of financial services companies. However, the speculative-grade share of both the financial and nonfinancial sectors has been growing in recent years. Thus far, 94 defaults have come from the 2019 pool of financial and nonfinancial companies, and all of these were from the lowest rating categories, 'B' and lower. Most were nonfinancial companies, and nine were financial services issuers.

Table 14

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

Rating	--Latest one-year--			--Latest three-year--			--Latest five-year--		
	# of ratings as of 1/1/2019	# of defaults through December 2019	Non-default rate (%)	# of ratings as of 1/1/2017	# of defaults through December 2019	Non-default rate (%)	# of ratings as of 1/1/2015	# of defaults through December 2019	Non-default rate (%)
Global									
AAA	8	0	100.0	14	0	100.0	16	0	100.0
AA	326	0	100.0	338	0	100.0	346	0	100.0
A	1,400	0	100.0	1,364	0	100.0	1,343	0	100.0
BBB	1,870	2	99.9	1,795	2	99.9	1,809	7	99.6
BB	1,343	0	100.0	1,321	6	99.5	1,232	35	97.2
B	2,081	31	98.5	1,805	99	94.5	1,990	278	86.0
CCC/C	203	61	70.0	242	101	58.3	165	69	58.2
Nonfinancials									
AAA	5	0	100.0	10	0	100.0	12	0	100.0
AA	99	0	100.0	97	0	100.0	94	0	100.0

Table 14

Defaults And Survivor Rates In Latest One-Year, Three-Year, And Five-Year Pools (cont.)

	--Latest one-year--			--Latest three-year--			--Latest five-year--		
Rating	# of ratings as of 1/1/2019	# of defaults through December 2019	Non-default rate (%)	# of ratings as of 1/1/2017	# of defaults through December 2019	Non-default rate (%)	# of ratings as of 1/1/2015	# of defaults through December 2019	Non-default rate (%)
A	590	0	100.0	575	0	100.0	546	0	100.0
BBB	1,303	2	99.8	1,213	2	99.8	1,247	6	99.5
BB	1,070	0	100.0	1,033	6	99.4	972	34	96.5
B	1,829	27	98.5	1,560	87	94.4	1,759	245	86.1
CCC/C	191	56	70.7	218	93	57.3	139	62	55.4
Financials									
AAA	3	0	100.0	4	0	100.0	4	0	100.0
AA	227	0	100.0	241	0	100.0	252	0	100.0
A	810	0	100.0	789	0	100.0	797	0	100.0
BBB	567	0	100.0	582	0	100.0	562	1	99.8
BB	273	0	100.0	288	0	100.0	260	1	99.6
B	252	4	98.4	245	12	95.1	231	33	85.7
CCC/C	12	5	58.3	24	8	66.7	26	7	73.1

Note: The totals included may differ from the counts in table 1 because defaults that are not rated at the beginning of the pool year are excluded. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 15

Investment-Grade Defaults In The Five-Year 2015 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
FirstEnergy Solutions Corp.	U.S.	Energy and natural resources	4/2/2018	CCC+	BBB-	BBB	3/26/2007	2018
Istmo Compania de Reaseguros Inc.	Panama	Insurance	12/16/2016	BBB	BBB	BBB-	1/31/2007	2016
Noble Group Ltd.	Bermuda	Energy and natural resources	3/20/2018	B+	BBB-	BB+	3/2/2005	2018
Odebrecht Engenharia e Construcao S.A.	Brazil	Aerospace/automotive/capital goods/metal	11/26/2018	CCC+	BBB-	BB-	3/26/2002	2018

Table 15

Investment-Grade Defaults In The Five-Year 2015 Static Pool (cont.)

| 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
Pacific Gas & Electric Co.	U.S.	Utility	1/16/2019	A-	BBB	BBB-	4/16/2004	2019
PG&E Corp.	U.S.	Utility	1/29/2019	A-	BBB	BBB+	3/10/2009	2019
Samarco Mineracao S.A.	Brazil	Energy and natural resources	9/28/2016	BB+	BBB	BBB	10/22/2012	2016

Note: Excludes confidentially rated defaults. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Since 1981, the 'B' rating category has accounted for 1,593 defaults (55.5% of the total from initial rating), well more than double the number of defaulters from the 'BB' category (see tables 10 and 12). Given this track record, monitoring the trends of newly assigned ratings could prove useful in anticipating future default activity, based on the observation that years with high numbers of new 'B-' and lower ratings will likely be followed by increased default risk.

Chart 17 plots the proportion of all new speculative-grade ratings at 'B-' or lower in the U.S. against the year-end U.S. speculative-grade default rate. As coincident indicators, the two series generally mirror each other in broad movements throughout most of their shared history. However, in most of the relatively benign period since the financial crisis, the two series have diverged somewhat, as they did in 2004-2007. In 2019, the share of new speculative-grade issuers rated 'B-' and lower reached 39.3%. This is an extremely high level, second only to 2009, when the ratio hit 56.6% amid a wave of distressed exchanges, which, once completed, often result in 'B-' ratings.

Chart 17

Speculative-Grade Origination Trends And Default Rate: U.S. And Tax Havens
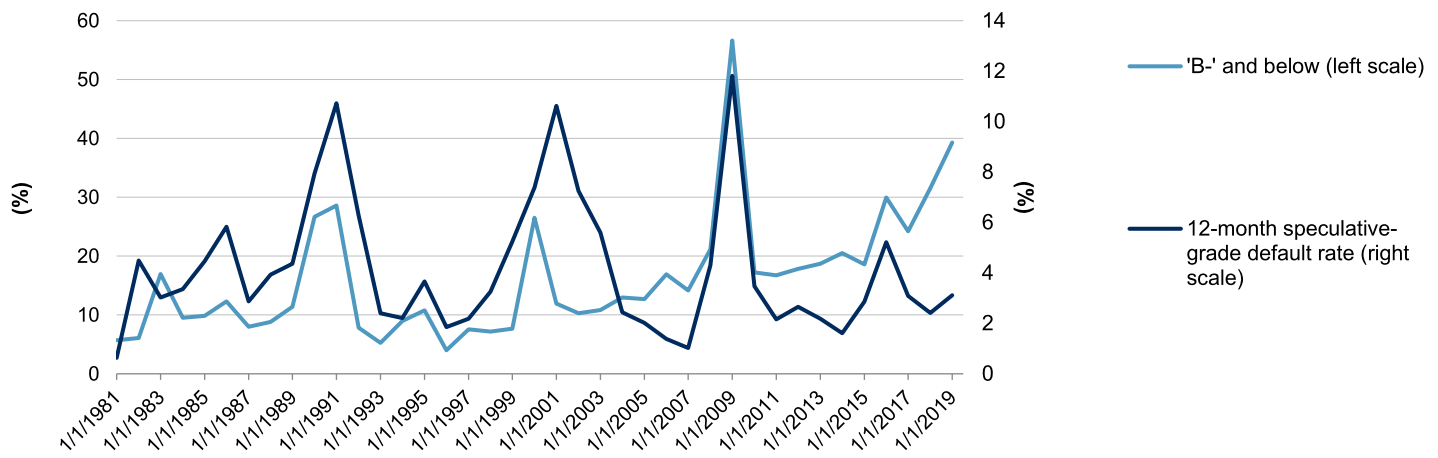
Note: 'B-' and below ratings calculated as a share of total speculative grade. U.S. and tax havens--U.S., Bermuda, and Cayman Islands. Data through Dec. 31, 2019. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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Industry Variations: Energy And Consumer Services Lead Defaults Once Again

Default rates modestly increased for both the broad nonfinancial sector and financial services sector in 2019, but they remained below the long-term averages over the one-year horizon (see table 16). Meanwhile, in nearly all instances, longer-term default rates were lower in 2019 than long-term averages. This is not surprising at the three- and 10-year horizons, considering the relative stress of the financial crisis has passed beyond the 10-year time frame. At the three-year horizon, the heightened default rates of 2015 and 2016 that resulted from the drop in oil prices have also passed.

Nonfinancial companies show a higher average default rate than financial services companies over the one-, three-, and 10-year horizons. This trend continued in 2019. Financial services companies accounted for only about 8.5% of total defaults globally in 2019, and the default rate for financial services was just 0.42%. Financial services sectors tend to have higher shares of companies rated investment grade, and at the beginning of 2019, just 15% of speculative-grade companies globally were from financial services.

Table 16

Cumulative Global Corporate Default Rates By Sector (%)

Sector	2019	2018	Average (1981-2019)	Median	Standard deviation	Minimum	Maximum
Financial institutions							
One-year	0.60	0.54	0.66	0.35	0.71	0.00	2.78

Table 16

Cumulative Global Corporate Default Rates By Sector (%) (cont.)

Sector	2019	2018	Average (1981–2019)	Median	Standard deviation	Minimum	Maximum
Three-year	1.37	1.83	1.91	1.37	1.58	0.00	6.48
10-year	2.94	4.38	4.79	4.18	2.52	1.67	10.04
Insurance							
One-year	0.12	0.00	0.50	0.22	0.91	0.00	4.76
Three-year	0.23	0.23	1.52	0.97	1.65	0.12	7.14
10-year	0.86	1.43	4.85	4.29	3.16	0.86	14.71
All financials							
One-year	0.42	0.33	0.58	0.42	0.54	0.00	2.07
Three-year	0.92	1.19	1.72	1.30	1.18	0.18	4.96
10-year	2.06	3.15	4.79	3.97	2.31	2.06	8.87
All nonfinancials							
One-year	1.67	1.35	1.81	1.50	1.30	0.16	5.74
Three-year	3.99	5.17	5.11	4.03	2.84	1.89	12.53
10-year	8.02	12.07	11.44	10.80	3.19	7.02	19.48

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Over the long term, nonfinancial sectors have tended to show a more pronounced cyclicality of defaults than the financial sectors. While the one-year default rate for nonfinancial companies has climbed above 3.5% in three previous cyclical peaks (1991, 2001-2002, and 2009), the annual default rate for financial services has remained below 2% since 1990 and below 1% for the past 10 years (see chart 18).
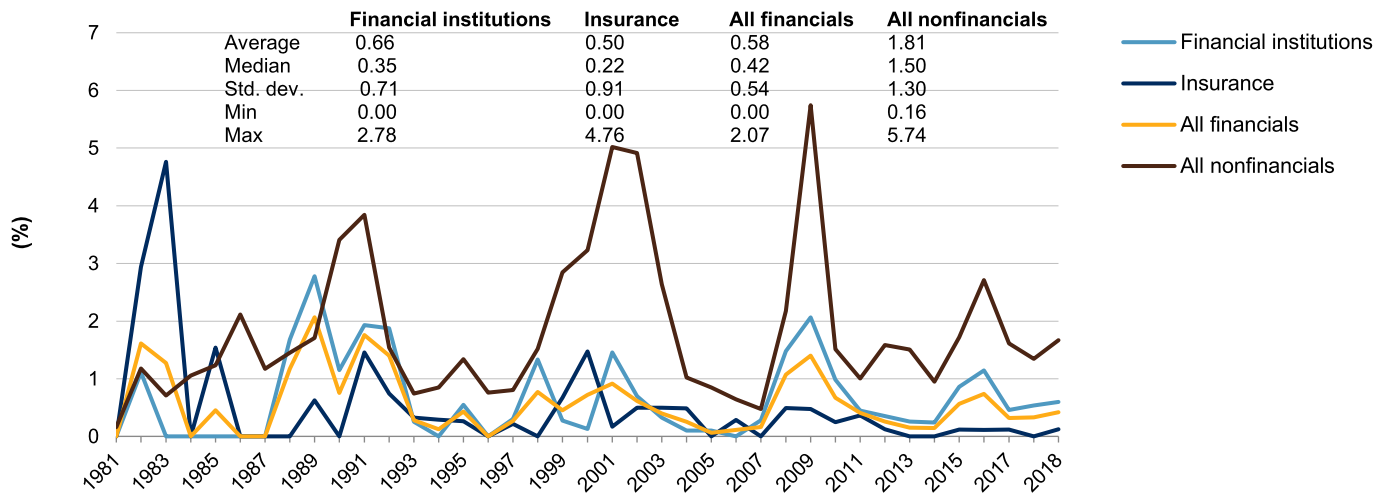
The higher default rates for nonfinancial sectors are not surprising, given their higher concentration of speculative-grade issuers. Financial services companies are more likely to be initially rated in the investment-grade category, while nonfinancial companies are much more likely to initially be rated speculative grade.

Over the 39 years this study covers, 70.7% of financial entities were initially rated investment grade, compared with only 30% of nonfinancial companies. This helps explain the resemblance between the annual default rates of nonfinancial entities and those of the speculative-grade segment as a whole, which certainly contributes to the vast differences between cumulative default rates across financial and nonfinancial sectors (see table 16).

For example, at the end of 2019, the one-year default rate among all financial entities was 0.42%, compared with 1.67% for all nonfinancial entities. The gap becomes even wider over longer time horizons, such as three years and 10 years (see chart 19).
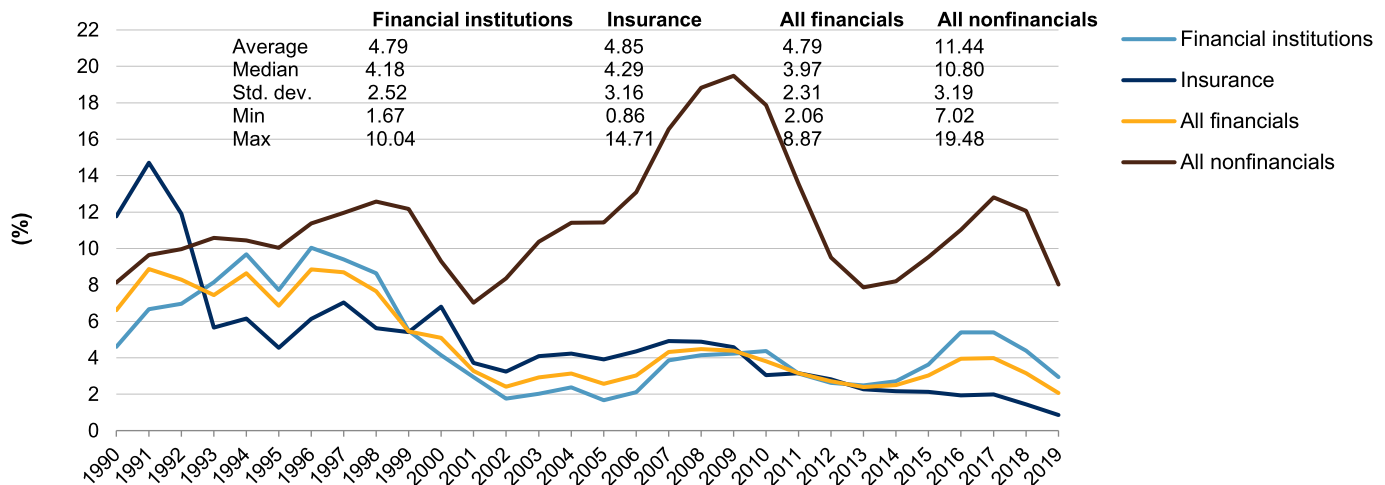
Chart 18

One-Year Default Rates By Broad Sector

	Financial institutions	Insurance	All financials	All nonfinancials
Average	0.66	0.50	0.58	1.81
Median	0.35	0.22	0.42	1.50
Std. dev.	0.71	0.91	0.54	1.30
Min	0.00	0.00	0.00	0.16
Max	2.78	4.76	2.07	5.74

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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Chart 19

10-Year Default Rates By Broad Sector

	Financial institutions	Insurance	All financials	All nonfinancials
Average	4.79	4.85	4.79	11.44
Median	4.18	4.29	3.97	10.80
Std. dev.	2.52	3.16	2.31	3.19
Min	1.67	0.86	2.06	7.02
Max	10.04	14.71	8.87	19.48

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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A total of 2,872 defaults have been recorded globally since 1981. Over that period, seven sectors have displayed average times to default that are lower than the overall average of 5.83 years: energy and natural resources; financial institutions; health care/chemicals; 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.

Across sectors, the average difference between an industry's median initial rating and the median initial rating of its defaulters was about 1.3 notches. The largest gap between the two was in financial institutions, which had a four-notch difference: The 229 financial institutions that defaulted had a median original rating of 'BB-', compared with a sector median of 'BBB'.

Table 17

Time To Default From Original Rating* 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-	393	6.4	4.5	5.6	36.1
Consumer/service sector	B+	B+	540	6.6	4.6	6.1	38.8
Energy and natural resources	B	B+	361	4.6	3.4	4.6	35.4
Financial institutions	BB-	BBB	229	5.6	3.7	5.9	28.6
Forest and building products/homebuilders	B+	B+	165	6.5	4.7	5.5	28.2
Health care/chemicals	B+	B+	166	5.8	4.0	5.4	33.7
High tech/computers/office equipment	B+	B+	99	5.4	3.9	4.6	28.4
Insurance	BBB+	A-	76	7.8	6.6	6.3	28.6
Leisure time/media	B	B+	379	5.8	4.0	5.3	34.1
Real estate	BB-	BBB-	46	3.6	2.8	2.8	10.5
Telecommunications	B	B+	182	3.9	3.1	3.0	21.4
Transportation	B+	BB	151	6.5	3.9	6.7	36.3
Utility	BB+	BBB+	85	6.5	4.3	6.5	30.4
Total	B+	BB-	2,872	5.8	4.0	5.5	38.8

*Or Dec. 31, 1980, whichever is later. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 18

Time To Default From Post-Original Ratings By Industry

	Average years to default	Median years to default	Standard deviation of years to default
Aerospace/automotive/capital goods/metal	3.6	1.5	5.0
Consumer/service sector	3.9	1.7	5.3
Energy and natural resources	2.6	1.0	4.1
Financial institutions	3.2	1.0	4.9
Forest and building products/homebuilders	3.0	1.3	4.2
Health care/chemicals	3.0	1.3	4.6

Table 18

Time To Default From Post-Original Ratings By Industry (cont.)

	Average years to default	Median years to default	Standard deviation of years to default
High technology/computers/office equipment	3.9	1.9	5.0
Insurance	3.1	1.7	3.7
Leisure time/media	3.2	1.2	4.5
Real estate	1.4	0.8	1.7
Telecommunications	1.6	0.6	2.7
Transportation	4.8	1.8	6.5
Utility	3.3	0.8	5.2
Total	3.3	1.3	4.8

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

As in 2018, defaults in 2019 were concentrated largely within two sectors: the consumer services sector (with 30 defaults) and the energy and natural resources sector (with 28 defaults). Together, these two sectors accounted for nearly half of all global defaults in 2019. Yet the default rate in each sector remained very close to the 2018 rate. These two sectors, along with telecommunications, displayed the highest default rates in 2019, but these rates were not markedly higher than the long-term weighted averages. Many other sectors had default rates slightly above their long-term averages as well (see table 19).

Table 19

Global Corporate Default Rates By Industry (%)

	2019	2018	Weighted average (1981-2019)	Median	Standard deviation	Minimum	Maximum
Aerospace/automotive/capital goods/metal	1.67	1.13	2.09	1.33	1.98	0.00	9.48
Consumer/service sector	2.60	2.52	2.32	1.83	1.55	0.00	6.29
Energy and natural resources	3.84	3.94	3.11	1.74	2.86	0.00	13.67
Financial institutions	0.60	0.54	0.66	0.35	0.71	0.00	2.78
Forest and building products/homebuilders	1.16	0.82	2.45	1.45	2.88	0.00	14.58
Health care/chemicals	1.56	0.88	1.39	0.85	1.29	0.00	4.89
High technology/computers/office equipment	1.36	0.87	1.17	0.98	1.42	0.00	4.82
Insurance	0.12	0.00	0.29	0.22	0.91	0.00	4.76
Leisure time/media	1.44	1.45	3.22	2.09	3.24	0.00	17.07
Real estate	0.00	0.26	0.64	0.00	2.69	0.00	12.00
Telecommunications	2.80	0.94	2.50	0.93	3.78	0.00	18.52
Transportation	0.68	0.69	1.93	1.69	1.61	0.00	6.06
Utility	0.32	0.00	0.43	0.17	0.74	0.00	4.26

Note: Includes investment-grade and speculative-grade-rated entities. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®

When comparing default rates across sectors, we note some key differences between the various industries. Several sectors have had distinct default cycles, such as the high technology/computers/office equipment sector and the telecommunications sector, which both fueled the prolonged spike in defaults during the tech bubble, when the global speculative-grade default rate reached 12.2% in June 2002. Other sectors, such as the consumer services sector, have had more frequent default cycles, both during and between economic cycles.

However, some of the variation in default rates between sectors stems from overall sample size differences, as well as differences in the ratings distribution across industries. For example, the leisure and media sector has a much higher proportion of speculative-grade ratings than the financial institutions or insurance sectors (see chart 20).

Furthermore, the speculative-grade share of every sector has grown over the past decade. Speculative-grade-rated issuers account for more than 60% of total issuers in eight of the 13 industries we track. As has been the case for an extended period, the leisure time/media sector has by far the highest proportion of speculative-grade ratings, with 83% of its issuers in this rating category in 2019.

Chart 20

Share Of Speculative-Grade Ratings To Total By Industry
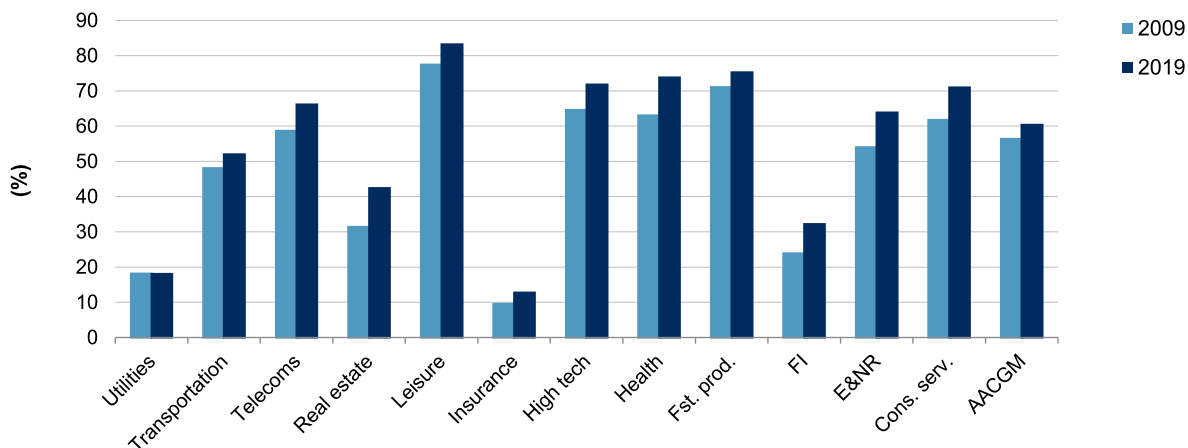
Note: Figures reflect year-end. Leisure--Leisure time/media. High tech--High technology/computers/office equipment. Health--Health care/chemicals. Fst. Prod--Forest and building products/homebuilders. FI--Financial institutions. E&NR--Energy and natural resources. Cons. serv.--Consumer/service sector. AACGM--Aerospace/automotive/capital goods/metal. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Speculative-Grade Ratings Represent About Half Of Corporate Issuers

The global trailing-12-month speculative-grade default rate rose to 2.5% in December 2019 from 2.1% one year earlier (see chart 21). With the default rate remaining low, risk tolerance among lenders has generally increased, and the share of newly assigned issuer credit ratings that are speculative grade has been rising. In 2019, 78% of newly assigned issuer credit ratings globally

were speculative grade. This is consistent with the annual average since 2010, which is 76.4%.

Chart 21

Trailing-12-Month Corporate Speculative-Grade Default Rate

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
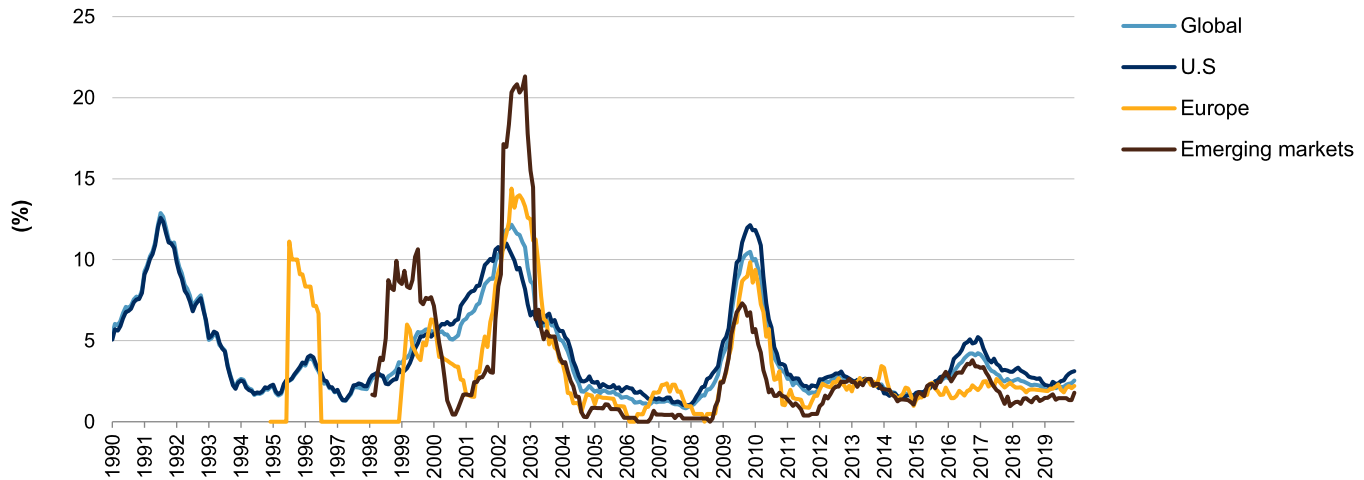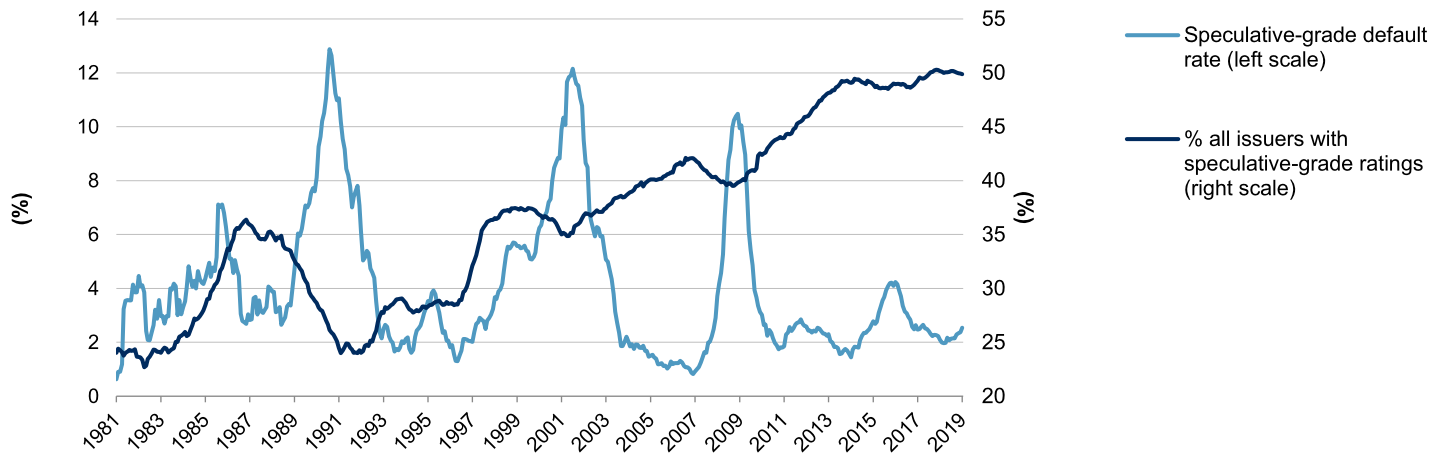Copyright © 2020 by Standard & Poor's Financial Services LLC. All rights reserved.

This growing number of newly rated speculative-grade issuers has brought active investment-grade and speculative-grade ratings to a rough parity at the end of 2019. Globally, speculative-grade issuers constitute 49.9% of rated corporate issuers. At the end of 2018, speculative-grade ratings represented a slim majority of global ratings (see chart 22).

In the period from 2009 to 2019, more than 75% of the initial ratings that S&P Global Ratings assigned to new issuers were speculative grade. This figure includes new ratings subsequent to a prior default--such as after distressed exchanges. However, even when we limit the pool of new issuers to those that have never been rated before, speculative-grade issuers still account for 74% of the total. This influx of new speculative-grade issuers has contributed to the growing share of speculative-grade ratings globally.

Chart 22

Global Corporate Speculative-Grade Default Rate Versus Prevalence Of Speculative-Grade Issuers

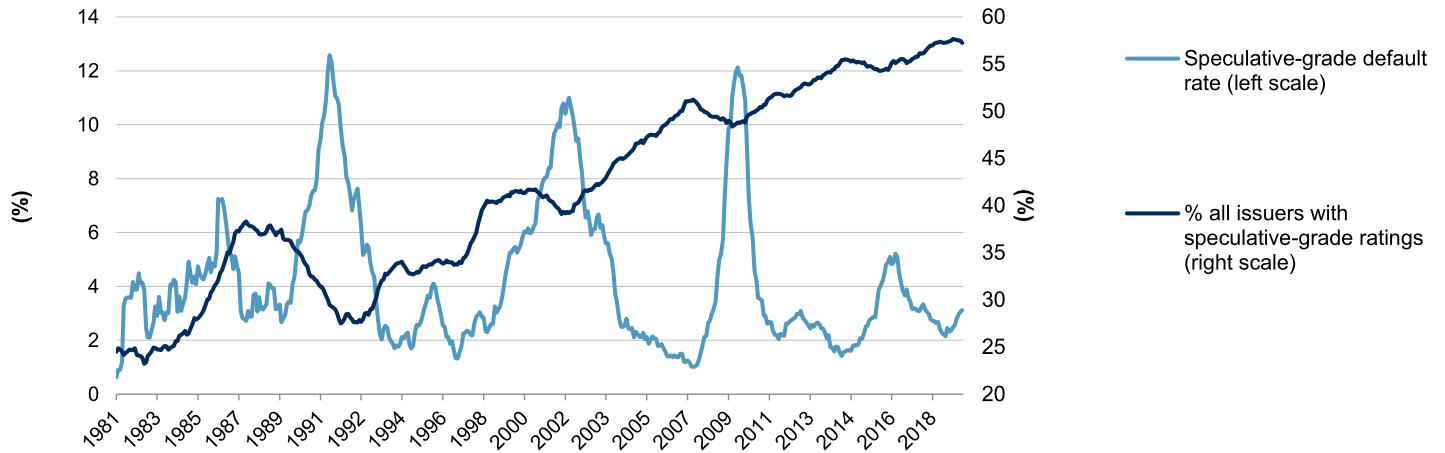Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Historically, a growing concentration of speculative-grade ratings often precedes a period of increased defaults. For example, the share of speculative-grade ratings surged in the U.S. beginning in 2002. After speculative-grade ratings reached a peak of 51% of U.S. corporate ratings in 2007, the default rate reached its cyclical peak of 12% in 2009, following the Great Recession (see chart 23).

In Europe, by contrast, the share of speculative-grade ratings remains in the minority. In large part, this reflects the private nature of the leveraged finance market before the financial crisis in 2008. In 2006, the speculative-grade share of European corporate ratings peaked near 21%, and once the cycle turned, the European speculative-grade default rate peaked at 9.9% in November 2009.

However, since 2008, the number of speculative-grade ratings in Europe has surged, and the share of speculative-grade ratings has more than doubled to 43.5% at the end of 2019. This growth of the publicly rated speculative-grade market in Europe has resulted largely from newly assigned speculative-grade ratings (in addition to downgrades). Before 2010, the majority of newly assigned European issuer credit ratings were investment grade, but since then, roughly 73% of newly assigned ratings have been speculative grade annually. With the region moving to promote disintermediation, we expect this share of speculative-grade issuers to continue to grow, and in fact, the ratio hit 77.3% in 2019.

Chart 23

U.S. Corporate Speculative-Grade Default Rate Versus Prevalence Of Speculative-Grade Issuers

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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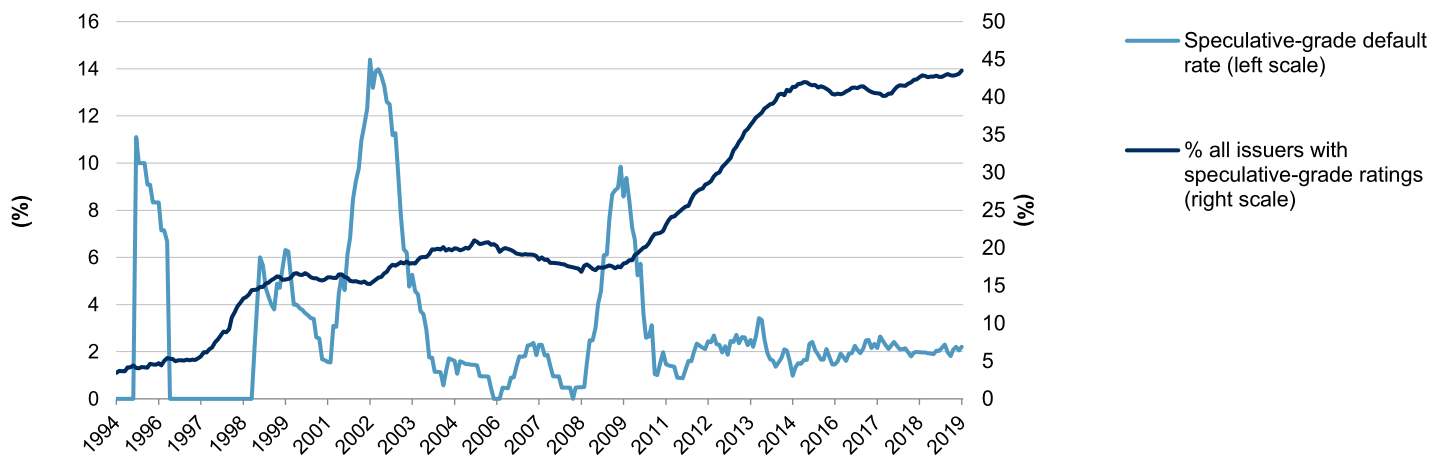
Chart 24

European Corporate Speculative-Grade Default Rate Versus Prevalence Of Speculative-Grade Issuers

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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Transition And Cumulative Default Rates Demonstrate Ratings Performance

An analysis of transition rates for 2019 suggests that ratings behavior continues to exhibit consistency with long-term trends. Higher ratings show a negative correspondence with the observed frequency of default. Investment-grade-rated issuers globally tend to exhibit greater ratings stability (as measured by the frequency of rating transitions) than those rated speculative grade (see table 20). For instance, 93.7% of issuers rated 'A' at the beginning of 2019 were still rated 'A' by Dec. 31, 2019, whereas the comparable share for issuers rated 'B' was only 78.6%.

The number of 'AAA' rated issuers globally has declined to just eight by the end of 2019 from 89 at the beginning of 2008. Over this same period, as the number of the highest-rated investment-grade companies has dwindled, the number of the lowest-rated investment-grade companies has surged. The number of companies rated in the 'BBB' category has grown by 31% since the beginning of 2008, to 1,862 at the end of 2019.

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. Many events over the long term have contributed to the decline of global 'AAA' rated issuers. The sovereign downgrades of China in 2017, the U.K. in 2016, France in 2012, and the U.S. in 2011 have factored into the downgrades of many higher-rated financial services companies.

Conversely, among nonfinancial entities, willingness to operate with higher leverage to fund share buybacks, expand businesses, or finance acquisitions has gradually increased. These factors, combined with asset managers' growing tolerance for investing in lower-rated companies, leave just a handful of the highest-rated firms.

Over the long term (1981-2019), 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

2019 One-Year Corporate Transition Rates By Region (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
Global									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	93.25	2.15	0.00	0.00	0.00	0.00	0.00	4.60
A	0.00	0.71	93.71	1.93	0.00	0.00	0.00	0.00	3.64
BBB	0.00	0.00	2.67	91.44	1.23	0.05	0.00	0.11	4.49
BB	0.00	0.00	0.07	2.61	83.02	4.99	0.30	0.00	9.01
B	0.00	0.00	0.00	0.00	2.21	78.57	5.09	1.49	12.64
CCC/C	0.00	0.00	0.00	0.00	0.49	8.37	45.81	30.05	15.27
U.S.									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	92.31	2.80	0.00	0.00	0.00	0.00	0.00	4.90
A	0.00	0.00	95.64	2.28	0.00	0.00	0.00	0.00	2.09

Table 20

2019 One-Year Corporate Transition Rates By Region
(%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
BBB	0.00	0.00	3.26	90.76	1.77	0.00	0.00	0.27	3.94
BB	0.00	0.00	0.00	1.73	83.91	6.57	0.52	0.00	7.27
B	0.00	0.00	0.00	0.00	2.19	79.11	5.39	1.35	11.96
CCC/C	0.00	0.00	0.00	0.00	0.76	8.40	48.85	32.82	9.16
Europe									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	93.41	0.00	0.00	0.00	0.00	0.00	0.00	6.59
A	0.00	2.07	93.52	0.26	0.00	0.00	0.00	0.00	4.15
BBB	0.00	0.00	3.00	93.09	0.69	0.00	0.00	0.00	3.23
BB	0.00	0.00	0.45	5.45	79.09	5.00	0.00	0.00	10.00
B	0.00	0.00	0.00	0.00	1.88	79.58	6.57	0.94	11.03
CCC/C	0.00	0.00	0.00	0.00	0.00	3.13	40.63	34.38	21.88
Emerging markets									
AAA	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	93.48	2.17	0.00	0.00	0.00	0.00	0.00	4.35
A	0.00	0.00	93.18	3.03	0.00	0.00	0.00	0.00	3.79
BBB	0.00	0.00	1.92	91.92	0.96	0.00	0.00	0.00	5.19
BB	0.00	0.00	0.00	2.25	83.40	3.07	0.20	0.00	11.07
B	0.00	0.00	0.00	0.00	2.36	75.59	2.10	2.62	17.32
CCC/C	0.00	0.00	0.00	0.00	0.00	17.24	41.38	20.69	20.69

NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

This study--in line with previous default studies--confirms that over the long term (1981-2019), higher ratings are more stable than lower ratings. Issuers rated 'AAA' were still rated 'AAA' one year later 87% of the time, while issuers rated in the 'CCC'/'C' category retained those ratings just 43.6% of the time. This relationship between higher ratings and higher ratings stability holds even over longer time horizons (see table 21) and when broken out by region (see table 22).

In contrast, the relationship is slightly more discontinuous when we examine rating transitions across modifiers (the 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 78.9% of the time, and 'AA' rated issuers were still rated 'AA' one year later 80.8% of the time. In this particular case, however, the 'AA+' figure was derived from a much smaller sample than that for 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– 2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
AAA	87.03	9.08	0.53	0.05	0.11	0.03	0.05	0.00	3.12
	(7.17)	(7.22)	(0.83)	(0.25)	(0.28)	(0.17)	(0.34)	(0.00)	(2.42)
AA	0.49	87.21	7.74	0.48	0.05	0.06	0.02	0.02	3.92
	(0.53)	(5.22)	(4.17)	(0.68)	(0.19)	(0.20)	(0.07)	(0.08)	(1.82)
A	0.03	1.66	88.42	5.04	0.27	0.11	0.02	0.05	4.40
	(0.09)	(1.03)	(3.71)	(2.18)	(0.38)	(0.24)	(0.06)	(0.11)	(1.69)
BBB	0.01	0.09	3.37	86.32	3.51	0.44	0.10	0.16	6.00
	(0.04)	(0.15)	(1.55)	(3.91)	(1.60)	(0.66)	(0.21)	(0.25)	(1.55)
BB	0.01	0.03	0.11	4.73	77.80	6.57	0.54	0.61	9.60
	(0.05)	(0.08)	(0.24)	(1.87)	(4.48)	(2.98)	(0.72)	(0.83)	(2.19)
B	0.00	0.02	0.07	0.16	4.76	74.78	4.47	3.33	12.41
	(0.00)	(0.08)	(0.20)	(0.21)	(2.07)	(4.05)	(2.00)	(3.13)	(2.20)
CCC/C	0.00	0.00	0.11	0.19	0.58	12.96	43.64	27.08	15.45
	(0.00)	(0.00)	(0.41)	(0.63)	(0.90)	(7.51)	(8.42)	(10.50)	(5.09)
Three-year									
AAA	65.41	22.23	2.33	0.32	0.27	0.08	0.11	0.13	9.12
	(11.48)	(12.27)	(1.74)	(0.76)	(0.53)	(0.29)	(0.41)	(0.37)	(5.24)
AA	1.16	66.83	18.21	1.98	0.34	0.21	0.03	0.12	11.13
	(0.84)	(9.57)	(6.21)	(1.41)	(0.50)	(0.44)	(0.07)	(0.18)	(4.03)
A	0.05	3.88	69.88	11.37	1.18	0.41	0.09	0.23	12.91
	(0.09)	(2.12)	(6.86)	(2.90)	(1.01)	(0.59)	(0.13)	(0.28)	(3.45)
BBB	0.02	0.26	8.20	65.71	6.89	1.51	0.27	0.80	16.34
	(0.06)	(0.39)	(2.88)	(7.12)	(2.01)	(1.29)	(0.36)	(0.93)	(3.22)
BB	0.01	0.05	0.46	10.90	48.14	11.19	1.20	3.61	24.43
	(0.05)	(0.13)	(0.68)	(3.18)	(7.33)	(2.72)	(0.89)	(3.46)	(3.71)
B	0.00	0.02	0.18	0.70	9.78	41.97	4.76	11.94	30.63
	(0.05)	(0.11)	(0.41)	(0.76)	(3.22)	(5.34)	(1.58)	(7.15)	(4.78)
CCC/C	0.00	0.00	0.12	0.56	1.57	17.42	9.98	41.08	29.27
	(0.00)	(0.00)	(0.48)	(1.16)	(1.60)	(6.60)	(5.85)	(11.64)	(8.31)
Five-year									
AAA	49.51	28.70	4.79	0.80	0.35	0.16	0.08	0.35	15.27
	(11.84)	(13.41)	(2.72)	(1.54)	(0.54)	(0.40)	(0.28)	(0.60)	(6.53)
AA	1.44	51.90	24.20	3.50	0.55	0.37	0.04	0.32	17.67
	(0.96)	(9.35)	(5.19)	(1.81)	(0.63)	(0.59)	(0.10)	(0.38)	(4.71)
A	0.07	4.97	56.72	14.66	1.92	0.64	0.14	0.50	20.37

Table 21

Global Corporate Average Transition Rates (1981- 2019) (%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.10)	(2.30)	(7.62)	(2.48)	(1.19)	(0.83)	(0.18)	(0.44)	(4.07)
BBB	0.02	0.40	10.42	52.67	7.58	2.06	0.37	1.69	24.79
	(0.07)	(0.53)	(2.92)	(7.61)	(1.60)	(1.44)	(0.38)	(1.46)	(4.26)
BB	0.01	0.08	0.93	12.63	32.58	11.02	1.18	7.07	34.51
	(0.05)	(0.17)	(0.97)	(3.03)	(7.38)	(2.04)	(0.91)	(4.88)	(4.11)
B	0.01	0.02	0.23	1.41	10.09	25.53	2.98	18.02	41.70
	(0.10)	(0.08)	(0.53)	(1.17)	(2.70)	(5.01)	(0.95)	(8.30)	(5.57)
CCC/C	0.00	0.00	0.10	0.68	2.66	12.77	2.52	45.67	35.59
	(0.00)	(0.00)	(0.46)	(1.70)	(2.06)	(4.73)	(3.47)	(11.83)	(8.97)
Seven-year									
AAA	38.00	32.43	6.86	1.49	0.35	0.19	0.11	0.51	20.06
	(11.04)	(13.80)	(2.97)	(1.92)	(0.55)	(0.42)	(0.31)	(0.74)	(6.81)
AA	1.49	40.67	27.58	4.68	0.73	0.37	0.03	0.53	23.91
	(0.95)	(7.00)	(4.16)	(1.77)	(0.61)	(0.50)	(0.08)	(0.53)	(4.52)
A	0.07	5.34	47.34	16.40	2.40	0.79	0.14	0.86	26.67
	(0.12)	(1.83)	(7.06)	(1.77)	(1.29)	(0.88)	(0.17)	(0.57)	(3.98)
BBB	0.03	0.53	11.20	43.96	7.28	2.24	0.36	2.61	31.79
	(0.10)	(0.59)	(2.69)	(7.15)	(0.91)	(1.18)	(0.32)	(1.79)	(4.39)
BB	0.00	0.08	1.30	12.82	23.74	9.77	0.93	10.15	41.20
	(0.00)	(0.17)	(1.05)	(3.09)	(6.68)	(2.05)	(0.69)	(5.54)	(3.61)
B	0.00	0.02	0.31	1.98	9.07	16.85	1.72	22.23	47.81
	(0.07)	(0.08)	(0.57)	(1.39)	(1.92)	(4.51)	(0.57)	(8.39)	(5.07)
CCC/C	0.00	0.00	0.19	0.93	3.62	7.83	1.39	48.88	37.16
	(0.00)	(0.00)	(0.57)	(2.00)	(1.93)	(3.77)	(1.91)	(11.13)	(8.85)

NR--Not rated. Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 22

Average One-Year Corporate Transition Rates (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
U.S.									
AAA	87.37	8.63	0.58	0.04	0.17	0.04	0.04	0.00	3.14
	(10.13)	(10.28)	(1.16)	(0.21)	(0.40)	(0.27)	(0.27)	(0.00)	(2.48)
AA	0.51	87.24	7.39	0.57	0.08	0.10	0.03	0.03	4.06
	(0.52)	(6.17)	(4.53)	(0.83)	(0.23)	(0.28)	(0.11)	(0.16)	(2.39)
A	0.04	1.69	88.23	5.26	0.36	0.14	0.03	0.07	4.18
	(0.12)	(1.20)	(4.21)	(2.53)	(0.49)	(0.31)	(0.11)	(0.16)	(1.86)

Table 22

Average One-Year Corporate Transition Rates (1981-2019) (%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
BBB	0.01	0.11	3.48	86.48	3.62	0.56	0.10	0.21	5.43
	(0.05)	(0.18)	(1.85)	(4.68)	(1.79)	(0.84)	(0.16)	(0.31)	(1.89)
BB	0.02	0.04	0.17	4.74	77.59	7.45	0.56	0.73	8.70
	(0.08)	(0.11)	(0.30)	(2.35)	(5.35)	(3.81)	(0.70)	(0.85)	(2.42)
B	0.00	0.03	0.10	0.18	4.42	75.65	4.64	3.52	11.45
	(0.00)	(0.10)	(0.23)	(0.25)	(2.05)	(4.47)	(2.34)	(3.29)	(2.29)
CCC/C	0.00	0.00	0.16	0.23	0.66	11.72	44.06	29.14	14.02
	(0.00)	(0.00)	(0.53)	(0.78)	(1.12)	(7.59)	(8.36)	(10.96)	(5.17)
Europe									
AAA	82.86	11.02	0.61	0.20	0.00	0.00	0.20	0.00	5.10
	(7.93)	(8.49)	(1.69)	(1.22)	(0.00)	(0.00)	(1.01)	(0.00)	(5.02)
AA	0.27	85.50	9.76	0.53	0.00	0.00	0.00	0.00	3.95
	(0.49)	(7.16)	(6.57)	(1.15)	(0.00)	(0.00)	(0.00)	(0.00)	(2.14)
A	0.01	1.83	87.37	5.51	0.16	0.01	0.00	0.04	5.07
	(0.05)	(1.37)	(4.54)	(3.49)	(0.35)	(0.06)	(0.00)	(0.09)	(1.79)
BBB	0.00	0.08	4.19	85.09	3.33	0.30	0.09	0.06	6.86
	(0.00)	(0.19)	(1.81)	(4.32)	(2.67)	(0.52)	(0.28)	(0.21)	(2.61)
BB	0.00	0.00	0.11	5.39	74.13	6.74	0.32	0.32	12.99
	(0.00)	(0.00)	(0.62)	(2.23)	(6.43)	(3.51)	(0.97)	(0.84)	(4.11)
B	0.00	0.00	0.03	0.25	5.34	72.68	4.48	2.00	15.22
	(0.00)	(0.00)	(0.22)	(0.52)	(3.17)	(6.36)	(2.20)	(2.84)	(5.15)
CCC/C	0.00	0.00	0.00	0.28	0.00	12.99	40.96	26.55	19.21
	(0.00)	(0.00)	(0.00)	(0.72)	(0.00)	(11.00)	(15.66)	(15.78)	(9.59)
Emerging markets									
AAA	89.53	9.30	0.00	0.00	0.00	0.00	0.00	0.00	1.16
	(21.26)	(20.87)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(6.28)
AA	1.02	88.52	7.58	0.20	0.00	0.00	0.00	0.00	2.66
	(5.06)	(11.60)	(9.34)	(1.38)	(0.00)	(0.00)	(0.00)	(0.00)	(3.56)
A	0.00	1.56	90.93	4.52	0.28	0.28	0.00	0.03	2.40
	(0.00)	(1.67)	(5.19)	(3.89)	(0.76)	(1.10)	(0.00)	(0.14)	(1.11)
BBB	0.00	0.02	2.34	87.09	4.36	0.35	0.16	0.12	5.57
	(0.00)	(0.09)	(2.21)	(5.60)	(4.23)	(1.24)	(1.02)	(0.36)	(1.89)
BB	0.00	0.00	0.00	4.20	80.42	4.71	0.61	0.53	9.53
	(0.00)	(0.00)	(0.00)	(2.40)	(4.19)	(2.16)	(1.98)	(1.14)	(3.15)
B	0.00	0.00	0.00	0.02	5.83	72.72	3.48	3.03	14.92
	(0.00)	(0.00)	(0.00)	(0.11)	(3.77)	(4.99)	(2.91)	(3.45)	(2.96)

Table 22

Average One-Year Corporate Transition Rates (1981-2019) (%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
CCC/C	0.00	0.00	0.00	0.00	0.45	18.55	44.66	18.25	18.10
	(0.00)	(0.00)	(0.00)	(0.00)	(0.95)	(13.22)	(14.32)	(15.01)	(10.76)

NR--Not rated. Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. For Europe and emerging markets, calculations are for 1996-2019 due to sample size considerations. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 23

Average One-Year Transition Rates For Global Corporates By Rating Modifier (1981-2019) (%)

| From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC	D	NR
AAA	87.03	5.89	2.51	0.69	0.16	0.24	0.13	0.00	0.05	0.00	0.03	0.05	0.03	0.00	0.03	0.00	0.05	0.00	3.12
	(7.17)	(6.21)	(3.19)	(1.04)	(0.45)	(0.56)	(0.34)	(0.00)	(0.25)	(0.00)	(0.17)	(0.19)	(0.14)	(0.00)	(0.17)	(0.00)	(0.34)	(0.00)	(2.42)
AA+	2.31	78.94	10.91	3.54	0.71	0.33	0.19	0.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.88
	(3.78)	(11.46)	(7.30)	(4.08)	(2.32)	(0.81)	(0.47)	(0.24)	(0.66)	(0.22)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(2.97)
AA	0.42	1.31	80.76	8.53	2.72	1.15	0.36	0.39	0.13	0.08	0.05	0.03	0.02	0.02	0.00	0.02	0.05	0.02	3.96
	(0.51)	(1.58)	(8.91)	(6.18)	(2.59)	(1.22)	(0.58)	(0.81)	(0.35)	(0.24)	(0.16)	(0.12)	(0.10)	(0.12)	(0.00)	(0.09)	(0.15)	(0.08)	(2.57)
AA-	0.04	0.11	3.77	78.80	9.68	2.19	0.60	0.25	0.15	0.07	0.03	0.00	0.00	0.03	0.08	0.00	0.00	0.03	4.18
	(0.13)	(0.30)	(4.26)	(7.43)	(4.82)	(2.57)	(0.82)	(0.48)	(0.43)	(0.24)	(0.20)	(0.00)	(0.00)	(0.14)	(0.37)	(0.00)	(0.00)	(0.10)	(2.02)
A+	0.00	0.06	0.44	4.44	78.38	8.73	2.15	0.61	0.34	0.09	0.06	0.09	0.01	0.07	0.03	0.00	0.00	0.05	4.45
	(0.00)	(0.19)	(0.68)	(2.50)	(5.85)	(3.23)	(1.48)	(0.65)	(0.43)	(0.19)	(0.16)	(0.25)	(0.05)	(0.19)	(0.13)	(0.00)	(0.00)	(0.14)	(1.84)
A	0.03	0.04	0.22	0.41	5.32	78.88	6.74	2.38	0.86	0.27	0.10	0.10	0.06	0.08	0.02	0.00	0.01	0.05	4.42
	(0.13)	(0.13)	(0.50)	(0.48)	(2.01)	(5.34)	(3.03)	(1.72)	(0.91)	(0.38)	(0.19)	(0.27)	(0.29)	(0.28)	(0.09)	(0.00)	(0.05)	(0.12)	(2.17)
A-	0.04	0.01	0.06	0.15	0.42	6.49	78.12	7.23	1.98	0.57	0.13	0.13	0.11	0.10	0.02	0.01	0.03	0.06	4.34
	(0.19)	(0.05)	(0.15)	(0.27)	(0.61)	(3.08)	(6.14)	(3.07)	(1.56)	(0.61)	(0.32)	(0.34)	(0.23)	(0.29)	(0.07)	(0.08)	(0.14)	(0.18)	(1.80)
BBB+	0.00	0.01	0.05	0.06	0.20	0.74	7.13	75.83	7.98	1.56	0.36	0.29	0.13	0.15	0.10	0.02	0.06	0.10	5.23
	(0.00)	(0.05)	(0.15)	(0.17)	(0.42)	(0.96)	(2.79)	(6.31)	(3.28)	(1.42)	(0.51)	(0.56)	(0.21)	(0.40)	(0.29)	(0.09)	(0.17)	(0.26)	(1.90)
BBB	0.01	0.01	0.04	0.03	0.10	0.31	1.00	7.73	76.00	6.11	1.34	0.58	0.27	0.22	0.11	0.03	0.05	0.16	5.90
	(0.07)	(0.07)	(0.13)	(0.12)	(0.21)	(0.67)	(0.96)	(3.09)	(5.01)	(2.30)	(1.05)	(0.61)	(0.46)	(0.44)	(0.38)	(0.10)	(0.12)	(0.27)	(2.03)
BBB-	0.01	0.01	0.02	0.04	0.06	0.14	0.25	1.17	9.31	72.40	5.47	2.08	0.83	0.36	0.22	0.16	0.21	0.25	7.00
	(0.07)	(0.05)	(0.06)	(0.19)	(0.17)	(0.38)	(0.52)	(1.13)	(3.01)	(5.11)	(2.65)	(1.46)	(0.75)	(0.72)	(0.46)	(0.43)	(0.54)	(0.39)	(2.12)
BB+	0.04	0.00	0.00	0.03	0.03	0.08	0.08	0.41	1.59	11.33	65.29	7.42	2.61	0.95	0.53	0.24	0.36	0.31	8.70
	(0.21)	(0.00)	(0.00)	(0.12)	(0.10)	(0.37)	(0.27)	(0.69)	(1.82)	(4.19)	(6.55)	(3.91)	(1.93)	(1.55)	(1.05)	(0.37)	(0.90)	(0.60)	(2.60)
BB	0.00	0.00	0.03	0.01	0.00	0.06	0.05	0.16	0.47	2.00	9.44	65.41	8.46	2.22	1.02	0.31	0.52	0.51	9.33
	(0.00)	(0.00)	(0.20)	(0.06)	(0.00)	(0.35)	(0.21)	(0.40)	(0.83)	(2.14)	(4.03)	(5.32)	(3.37)	(1.46)	(1.26)	(0.56)	(0.94)	(0.66)	(2.97)
BB-	0.00	0.00	0.00	0.01	0.01	0.01	0.05	0.09	0.23	0.35	1.69	9.57	63.71	8.42	3.04	0.81	0.66	0.91	10.42
	(0.00)	(0.00)	(0.00)	(0.09)	(0.08)	(0.07)	(0.27)	(0.24)	(0.42)	(0.61)	(1.62)	(3.93)	(5.36)	(3.64)	(1.53)	(0.77)	(0.81)	(1.40)	(2.49)
B+	0.00	0.01	0.00	0.03	0.00	0.03	0.06	0.04	0.05	0.10	0.31	1.42	8.17	62.91	9.20	2.51	1.71	1.98	11.45
	(0.00)	(0.06)	(0.00)	(0.14)	(0.00)	(0.09)	(0.20)	(0.13)	(0.16)	(0.21)	(0.35)	(1.10)	(3.33)	(5.60)	(3.60)	(1.24)	(1.57)	(2.01)	(2.64)

Table 23

Average One-Year Transition Rates For Global Corporates By Rating Modifier (1981-2019) (%) (cont.)

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC	D	NR
B	0.00	0.00	0.01	0.01	0.00	0.03	0.04	0.02	0.05	0.03	0.11	0.23	1.09	7.38	62.00	9.32	3.85	3.20	12.63
	(0.00)	(0.00)	(0.08)	(0.06)	(0.00)	(0.19)	(0.35)	(0.07)	(0.28)	(0.10)	(0.28)	(0.53)	(1.18)	(3.16)	(6.74)	(3.65)	(3.04)	(4.04)	(2.56)
B-	0.00	0.00	0.00	0.00	0.02	0.03	0.00	0.06	0.05	0.10	0.08	0.13	0.46	2.18	10.06	54.63	11.70	6.49	14.02
	(0.00)	(0.00)	(0.00)	(0.00)	(0.29)	(0.28)	(0.00)	(0.31)	(0.17)	(0.42)	(0.43)	(0.81)	(0.85)	(2.21)	(4.89)	(6.85)	(3.76)	(5.99)	(3.82)
CCC/C	0.00	0.00	0.00	0.00	0.03	0.00	0.08	0.05	0.08	0.05	0.03	0.16	0.40	0.98	2.57	9.41	43.64	27.08	15.45
	(0.00)	(0.00)	(0.00)	(0.00)	(0.22)	(0.00)	(0.36)	(0.45)	(0.31)	(0.36)	(0.22)	(0.49)	(0.73)	(1.48)	(2.88)	(5.41)	(8.42)	(10.50)	(5.09)

NR--Not rated. Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 25

Global Corporate Average Cumulative Default Rates By Rating (1981-2019)
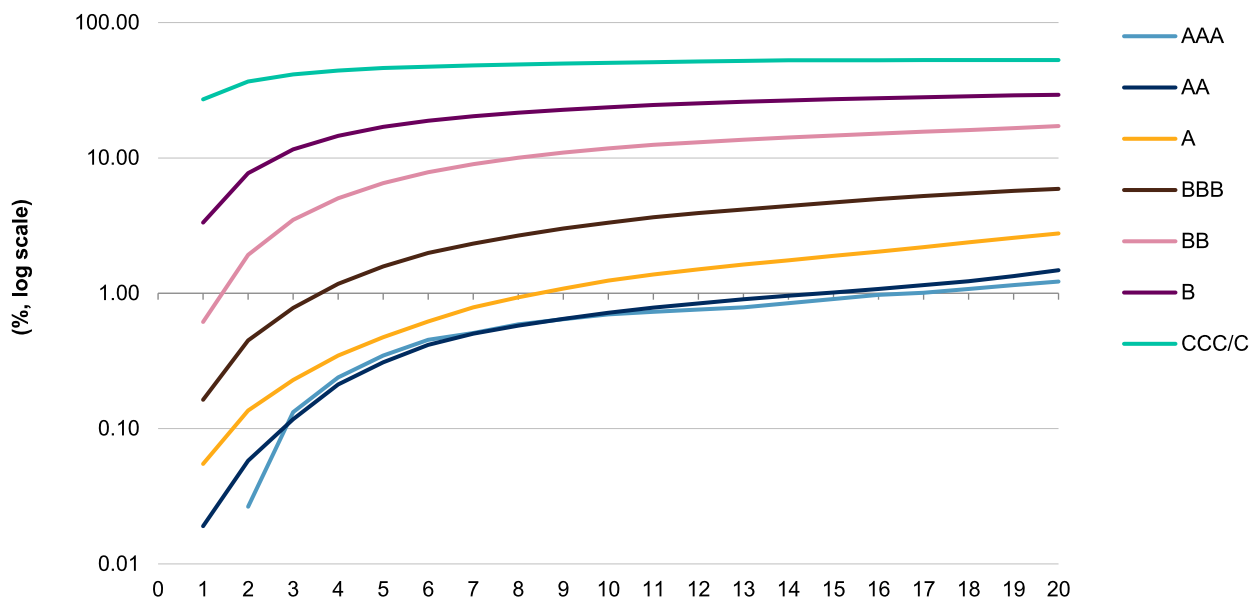
*Data provided is identical to that found in chart 4, converted to log scale. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 24

Global Corporate Average Cumulative Default Rates (1981-2019) (%)

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	0.45	0.51	0.59	0.64	0.70	0.73	0.76	0.79	0.85	0.91
AA	0.02	0.06	0.12	0.21	0.31	0.42	0.50	0.58	0.65	0.72	0.78	0.84	0.90	0.96	1.02
A	0.05	0.14	0.23	0.35	0.47	0.62	0.79	0.93	1.08	1.24	1.37	1.50	1.63	1.75	1.89
BBB	0.16	0.45	0.78	1.17	1.58	1.98	2.33	2.67	3.00	3.32	3.65	3.92	4.16	4.42	4.69
BB	0.61	1.92	3.48	5.05	6.52	7.85	9.01	10.04	10.97	11.78	12.46	13.08	13.64	14.12	14.67
B	3.33	7.71	11.55	14.58	16.93	18.83	20.36	21.60	22.70	23.74	24.63	25.30	25.92	26.53	27.12
CCC/C	27.08	36.64	41.41	44.10	46.19	47.09	48.26	49.05	49.76	50.38	50.87	51.39	51.99	52.52	52.59
Investment grade	0.09	0.24	0.42	0.65	0.88	1.11	1.32	1.52	1.72	1.91	2.10	2.25	2.40	2.55	2.71
Speculative grade	3.61	7.00	9.93	12.31	14.26	15.85	17.19	18.31	19.31	20.22	20.98	21.62	22.20	22.74	23.28
All rated	1.48	2.89	4.13	5.17	6.04	6.76	7.38	7.90	8.37	8.80	9.18	9.49	9.78	10.05	10.32

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

The only exceptions to the correspondence between lower ratings and higher default rates occur when the number of defaults is low or when the underlying number of issuers is very small--such as at the rating modifier level among the higher rating categories (see table 26). Investment-grade-rated issuers seldom default, so the number of defaults among these rating categories is particularly low. This small sample size can at times result in historical default rates that seem counterintuitive. These default rates do not imply, however, that 'AAA' rated companies are riskier than 'AA+' rated companies, for example, but rather that both are highly unlikely to default.

Table 25

Average Cumulative Default Rates For Corporates By Region (1981-2019) (%)

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	0.41	0.54	0.58	0.66	0.75	0.83	0.87	0.92	0.96	1.05	1.15
AA	0.03	0.08	0.17	0.30	0.43	0.57	0.71	0.82	0.91	1.02	1.11	1.19	1.27	1.34	1.43
A	0.07	0.20	0.34	0.52	0.69	0.89	1.11	1.31	1.53	1.76	1.96	2.14	2.32	2.48	2.65
BBB	0.21	0.53	0.91	1.39	1.90	2.41	2.86	3.32	3.77	4.21	4.63	4.94	5.23	5.54	5.89
BB	0.73	2.28	4.17	6.01	7.68	9.29	10.66	11.94	13.06	14.07	14.90	15.69	16.40	17.00	17.63
B	3.52	8.22	12.41	15.71	18.30	20.42	22.13	23.50	24.72	25.87	26.83	27.57	28.27	28.92	29.55
CCC/C	29.14	40.14	45.67	49.03	51.62	52.81	54.27	55.14	55.95	56.63	57.26	57.78	58.32	58.81	58.81
Investment grade	0.12	0.31	0.53	0.82	1.11	1.41	1.70	1.98	2.25	2.52	2.77	2.98	3.17	3.36	3.57
Speculative grade	4.03	7.91	11.28	14.01	16.23	18.08	19.64	20.93	22.08	23.14	24.02	24.76	25.45	26.06	26.64

Table 25

Average Cumulative Default Rates For Corporates By Region (1981-2019) (%) (cont.)

Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
						--Time horizon (years)--									
All rated	1.79	3.54	5.09	6.38	7.45	8.38	9.16	9.83	10.43	11.00	11.48	11.87	12.24	12.57	12.90
Europe															
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
AA	0.00	0.03	0.06	0.13	0.19	0.26	0.30								
A	0.03	0.07	0.11	0.16	0.25	0.32	0.42								
BBB	0.06	0.18	0.31	0.43	0.51	0.72	0.90								
BB	0.32	1.13	1.93	2.71	3.74	4.54	5.32								
B	2.00	5.19	8.16	10.52	12.43	13.70	14.52								
CCC/C	26.55	35.16	38.33	41.35	42.89	42.89	43.67								
Investment grade	0.04	0.10	0.16	0.24	0.32	0.43	0.53								
Speculative grade	2.59	5.05	7.08	8.76	10.23	11.21	12.00								
All rated	0.71	1.38	1.93	2.37	2.75	3.03	3.26								
Emerging markets															
AAA	0.00	0.00	0.00	0.00	0.00										
AA	0.00	0.00	0.00	0.00	0.00										
A	0.03	0.03	0.03	0.03	0.03										
BBB	0.12	0.51	0.99	1.53	2.04										
BB	0.53	1.59	2.77	3.95	4.86										
B	3.03	6.32	8.76	10.66	12.05										
CCC/C	18.25	22.74	25.13	25.63	26.18										
Investment grade	0.08	0.34	0.64	0.99	1.32										
Speculative grade	2.57	4.76	6.53	7.97	9.06										
All rated	1.46	2.79	3.91	4.87	5.62										

Note: Figures for Europe and the emerging markets are calculated for the period 1996-2019 due to sample size considerations. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 26

Global Corporate Average Cumulative Default Rates By Rating Modifier (1981-2019) (%)

Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
						--Time horizon (years)--									
AAA	0.00	0.03	0.13	0.24	0.35	0.45	0.51	0.59	0.64	0.70	0.73	0.76	0.79	0.85	0.91
AA+	0.00	0.05	0.05	0.10	0.15	0.20	0.26	0.31	0.37	0.43	0.49	0.55	0.61	0.67	0.74
AA	0.02	0.03	0.08	0.22	0.35	0.48	0.60	0.70	0.79	0.89	0.96	1.02	1.12	1.18	1.25

Table 26

Global Corporate Average Cumulative Default Rates By Rating Modifier (1981-2019) (%) (cont.)

Rating	--Time horizon (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AA-	0.03	0.08	0.17	0.24	0.31	0.42	0.49	0.54	0.59	0.64	0.70	0.76	0.78	0.82	0.87
A+	0.05	0.09	0.19	0.32	0.42	0.51	0.62	0.73	0.86	1.00	1.13	1.26	1.42	1.60	1.76
A	0.05	0.14	0.22	0.33	0.46	0.63	0.80	0.96	1.15	1.36	1.53	1.66	1.78	1.86	2.02
A-	0.06	0.17	0.27	0.38	0.53	0.68	0.90	1.06	1.18	1.29	1.39	1.52	1.63	1.74	1.83
BBB+	0.10	0.28	0.50	0.71	0.94	1.20	1.40	1.61	1.87	2.12	2.36	2.53	2.73	2.99	3.26
BBB	0.16	0.39	0.62	0.98	1.33	1.69	2.01	2.34	2.67	3.01	3.37	3.66	3.90	4.02	4.24
BBB-	0.25	0.72	1.31	1.96	2.64	3.26	3.81	4.32	4.75	5.11	5.52	5.86	6.16	6.61	6.97
BB+	0.31	0.99	1.80	2.63	3.50	4.33	5.03	5.54	6.14	6.73	7.11	7.58	8.05	8.40	8.93
BB	0.51	1.53	3.02	4.44	5.86	6.99	8.03	8.92	9.76	10.50	11.26	11.87	12.28	12.60	12.98
BB-	0.91	2.88	4.97	7.13	9.03	10.84	12.37	13.84	15.02	16.03	16.81	17.52	18.24	18.95	19.63
B+	1.98	5.41	8.75	11.59	13.81	15.52	17.13	18.54	19.84	21.01	21.99	22.67	23.37	24.04	24.70
B	3.20	7.41	11.11	14.05	16.40	18.50	19.94	20.99	21.98	23.00	23.70	24.39	24.97	25.47	26.00
B-	6.49	13.39	18.75	22.47	25.18	27.21	28.76	29.86	30.65	31.29	32.27	32.94	33.37	33.92	34.40
CCC/C	27.08	36.64	41.41	44.10	46.19	47.09	48.26	49.05	49.76	50.38	50.87	51.39	51.99	52.52	52.59
Investment grade	0.09	0.24	0.42	0.65	0.88	1.11	1.32	1.52	1.72	1.91	2.10	2.25	2.40	2.55	2.71
Speculative grade	3.61	7.00	9.93	12.31	14.26	15.85	17.19	18.31	19.31	20.22	20.98	21.62	22.20	22.74	23.28
All rated	1.48	2.89	4.13	5.17	6.04	6.76	7.38	7.90	8.37	8.80	9.18	9.49	9.78	10.05	10.32

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Gini Ratios And Lorenz Curves

A quantitative analysis of the performance of S&P Global Ratings' corporate ratings shows that they continue to correlate with default risk across several time horizons. As one measure of ratings performance, the cumulative share of defaulters was plotted against the cumulative share of issuers by rating in a Lorenz curve to visually render the accuracy of its rank ordering (for definitions and methodology, refer to Appendix II). Over the long term, the global weighted average Gini coefficient was 82.5% over the one-year horizon, 75.2% over three years, 71.4% over five years, and 69.3% over seven years (see table 27).

Table 27

Corporate Gini Coefficients By Region (1981-2019)

Region	--Time horizon--			
	One-year	Three-year	Five-year	Seven-year
Global				
Weighted average	82.53	75.19	71.38	69.27

Table 27

Corporate Gini Coefficients By Region (1981-2019) (cont.)

Region	--Time horizon--			
	One-year	Three-year	Five-year	Seven-year
Average	85.39	78.56	74.16	71.20
Standard deviation	(5.56)	(5.26)	(5.36)	(5.35)
U.S.				
Weighted average	80.71	72.84	69.01	66.79
Average	84.41	76.52	71.92	68.88
Standard deviation	(6.98)	(6.75)	(6.74)	(6.29)
Europe				
Weighted average	90.24	85.12	82.56	80.01
Average	91.88	87.86	82.91	77.04
Standard deviation	(4.91)	(5.36)	(6.54)	(11.33)

Note: Numbers in parentheses are standard deviations. Average and standard deviation for Europe calculated for the period 1996-2019 due to sample size considerations. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

In line with expectations, the Gini coefficients decline over time because longer time horizons allow for greater credit degradation among higher-rated entities. In the one-year global Lorenz curve, for example, 96.3% of defaults occurred in the speculative-grade category, while these ratings constituted only 39.5% of all corporate ratings (see chart 26). In the seven-year Lorenz curve, speculative-grade issuers constituted 87.9% of defaulters and only 36.1% 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 (1981-2019) (%)

Sector	--Time horizon--			
	One-year	Three-year	Five-year	Seven-year
Financial				
Weighted average	80.27	69.96	62.35	56.99
Average	83.06	75.79	67.86	61.63
Standard deviation	(20.43)	(14.79)	(16.36)	(16.02)
Nonfinancial				
Weighted average	80.80	72.66	68.86	67.13
Average	84.49	76.88	72.61	69.94
Standard deviation	(6.11)	(5.34)	(5.51)	(5.04)

Note: Numbers in parentheses are standard deviations. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 26

Global One-Year Relative Corporate Ratings Performance (1981-2019)
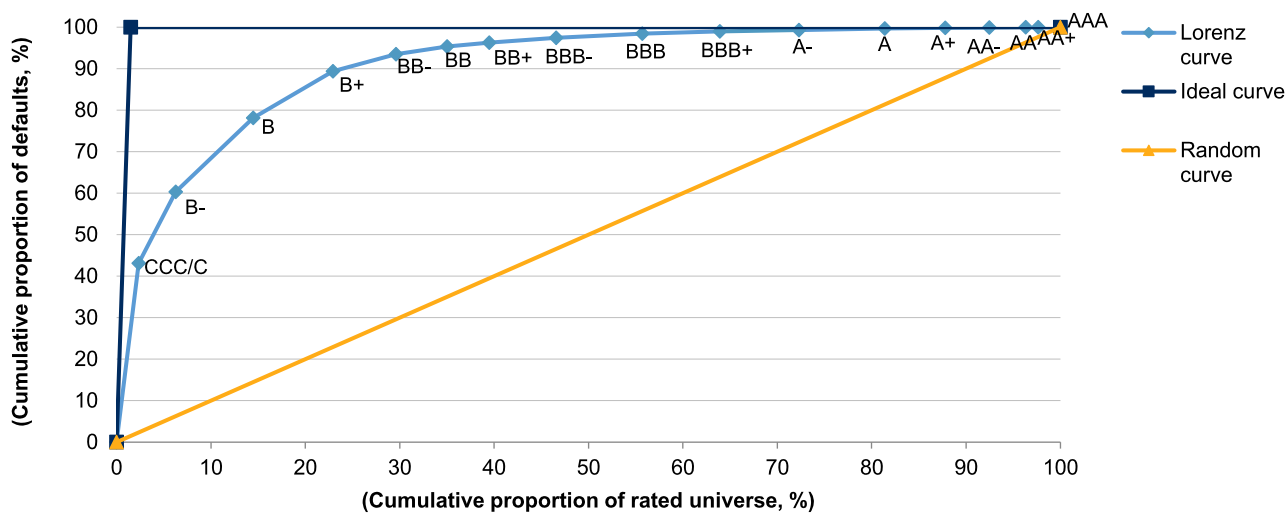
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

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Chart 27

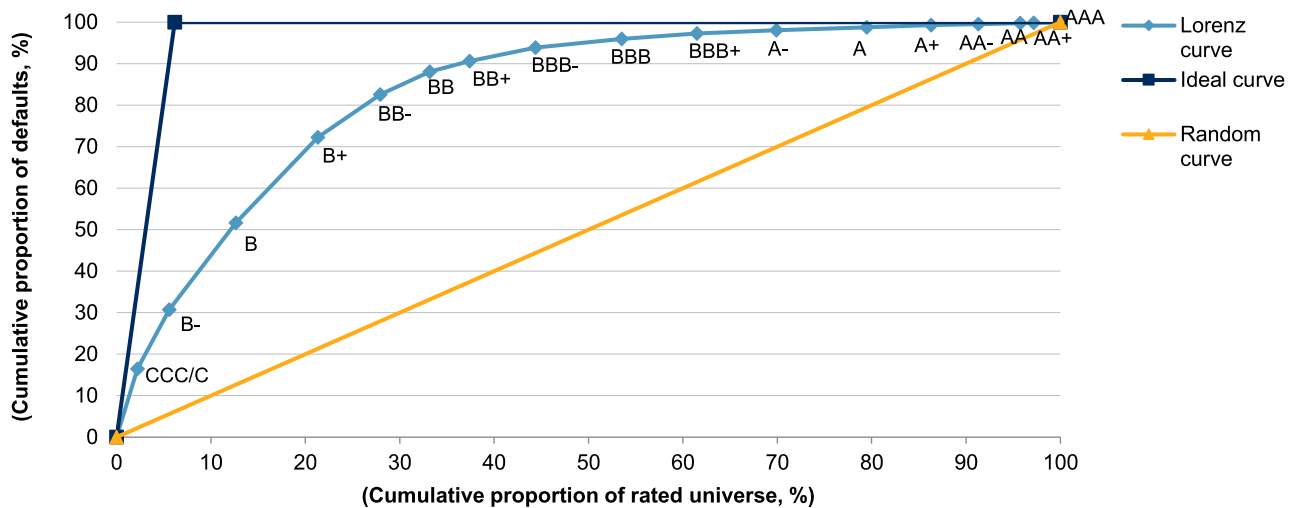## Global Three-Year Relative Corporate Ratings Performance (1981-2019)
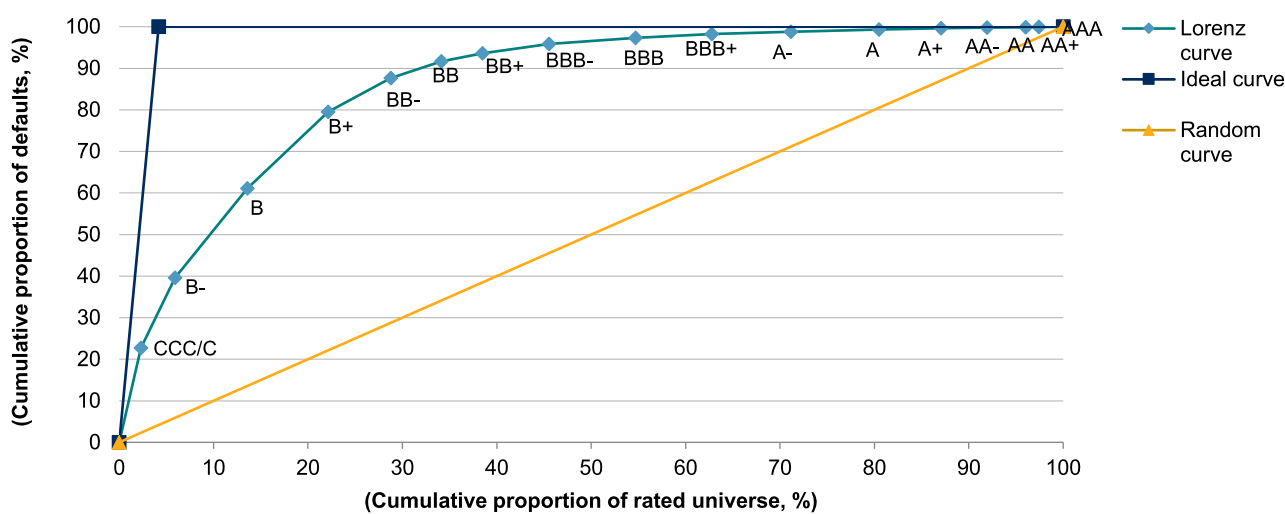
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

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Chart 28

Global Five-Year Relative Corporate Ratings Performance (1981-2019)

Chart 29

Global Seven-Year Relative Corporate Ratings Performance (1981-2019)
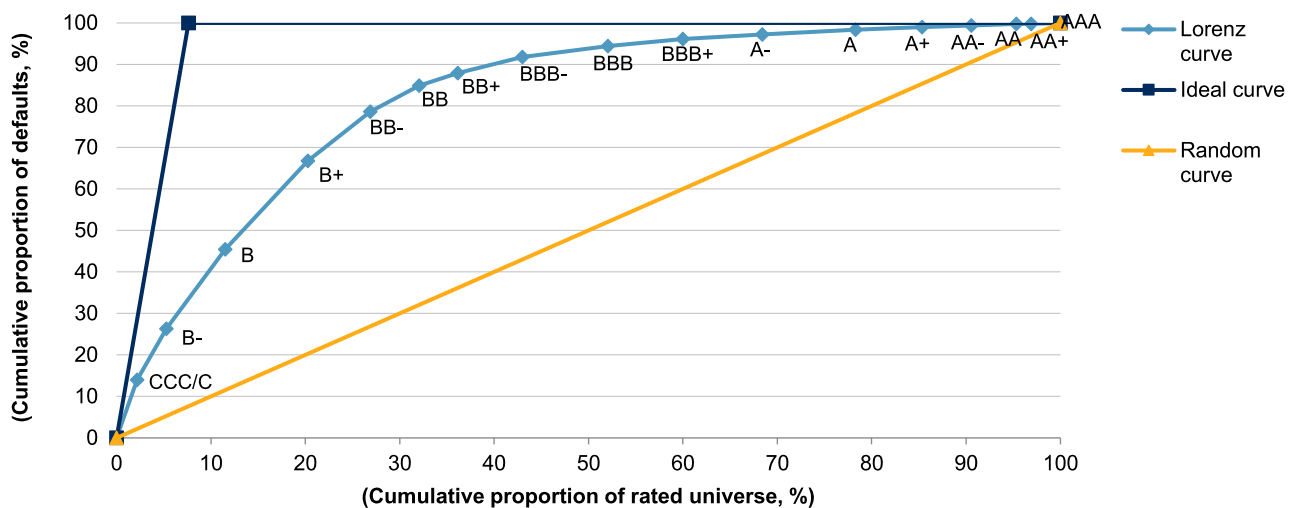
One-year Gini coefficients appear to be broadly cyclical and negatively correlated with default rates (see chart 30). Trends in the one-year Gini ratio emerge during periods of both high and low default rates, which reflects the natural relationship between the two extremes. In periods of high

defaults, there tends to be greater variation in the distribution of ratings prior to default, which reduces the Gini. That is, when default pressure is high, economic conditions are such that the likelihood of companies from across the ratings spectrum suffering a more rapid deterioration of credit quality is higher.

The experience of 2019 generally coincides with this observation. The one-year Gini ratio in 2019 was 88.4%, alongside a speculative-grade default rate of 2.5%. This compares with a Gini of 93.1% and a default rate of 2.1% in 2018.

Chart 30

Global One-Year Gini Coefficients Versus Speculative-Grade Default Rate
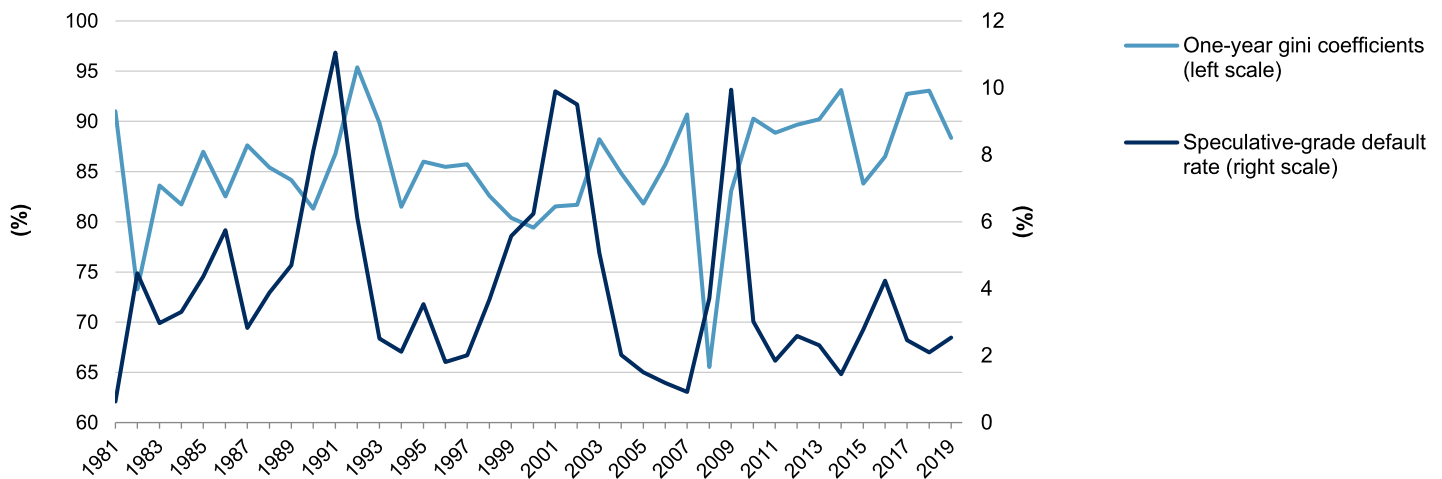
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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Appendix I: Methodology And Definitions

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 credit ratings.

S&P Global Ratings does not require all issuers with rated debt 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 rating used for the proxy because it is usually consistent with the issuer credit rating. In a small number of cases, we use 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.

Our 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

This study analyzes the rating histories of 21,083 companies that S&P Global Ratings rated as of Dec. 31, 1980, or that were first rated between that date and Dec. 31, 2019. 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 subjects of separate default and transition studies, and we exclude them from this study.

In this study, the insurance industry includes life insurance, health insurance, property/casualty insurance, reinsurance, bond insurance, mortgage insurance, and title insurance. In addition to these subsectors, this study also groups insurance service providers (such as insurance brokers and third-party administrators that are rated according to corporate criteria) with the insurance industry.

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 a parent. 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 a 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. 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. For the purposes of this study, a corporate rating may also be withdrawn as a result of mergers and acquisitions.

Definition of default

An obligor rated 'SD' (selective default) or 'D' (default) 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 nonpayment 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. S&P Global Ratings lowers its rating on an obligor to 'D' or 'SD' if the obligor is conducting a distressed exchange offer.

'R' (regulatory intervention) 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 to be 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' credit 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: Angola, Argentina, Armenia, Aruba, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belize, Bhutan, Bolivia, Bosnia-Herzegovina, Brazil, Brunei Darussalam, Cambodia, Chile, China, Colombia, Costa Rica, Curacao, Dominican Republic, Egypt, El Salvador, Fiji, Gabon, Georgia, Ghana, Grenada, Guatemala, Honduras, Hong Kong, India, Indonesia, Israel, Jamaica, Jordan, Kazakhstan, Kenya, 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, Russia, 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 Research conducts its default studies on the basis of groupings called static pools. For the purposes of this study, we form static pools by grouping issuers (for example, by rating category) at the beginning of each year, quarter, or month that the database covers. Each static pool is followed from that point forward. All companies included in the study are assigned to one or more static pools. When an issuer defaults, we assign that default to all of the static pools to which the issuer belonged.

We use the static pool methodology to avoid certain pitfalls in estimating default rates, such as by ensuring that default rates account for rating migration and allowing for default rates to be calculated across multiperiod 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 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 not rated (NR)--are surveilled with the aim of capturing a potential default. Because static pools include only 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 the rating on an entity is withdrawn after the start date of a particular static pool and the entity subsequently defaults, we will include the entity in that static pool as a defaulter and categorize it in the rating category of which it was a member at that time.

For instance, the 1981 static pool consists of all companies rated as of 12:00:01 a.m. on 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. on Jan. 1, 1982. We used the same method to form static pools for 1983-2019. From Jan. 1, 1981, to Dec. 31, 2019, a total of 21,083 first-time-rated organizations were added to form new static pools, while we excluded 2,872 defaulting companies and 10,986 companies that are no longer assigned ratings (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 was the rating on the issuer 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 39 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 more useful measures 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 39 pools was 3.61%, meaning that an average of 96.39% 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 3.52% for the first 38 pools (96.48% of those companies that did not default in the first year survived the second year) and 3.15% for the first 37 pools (96.85% of those companies that did not default by the second year survived the third year), respectively. Multiplying 96.39% by 96.48% results in a 93% survival rate to the end of the second year, which leads to a two-year average cumulative default rate of 7%. Multiplying 93% by 96.85% results in a 90.07% survival rate to the end of the third year, which results in a three-year average cumulative default rate of 9.93%.

Transition analysis.   Transition rates compare issuer credit ratings at the beginning of a 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 1985-1991. 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, 2019, had 39 one-year transitions, while companies first rated on Jan. 1, 2019, 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 leftmost 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, 2019, and was downgraded to 'BBB' in the middle of the year and then upgraded to 'A' later in the year (with no other subsequent rating changes), this entity would be included only 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 if the rating on the issuer is withdrawn in the middle of the year, then it would be considered rated 'D' or not rated as of Dec. 31 of that particular year.

Table 29

Summary Of One-Year Global Corporate Rating Transitions

Year	Jan. 1 investment grade	--Investment-grade rating distribution at year-end--				Jan. 1 speculative grade	--Speculative-grade rating distribution at year-end--			
		Investment grade (%)	Speculative grade (%)*	Defaulted (%)§	Rating withdrawn (%)		Investment grade (%)†	Speculative grade (%)	Defaulted (%)	Rating withdrawn (%)
1981	1,032	97.38	1.36	0.00	1.26	318	4.72	89.94	0.63	4.72
1982	1,063	93.51	3.10	0.19	3.20	336	2.68	80.36	4.46	12.50
1983	1,085	94.29	2.12	0.09	3.50	336	3.27	83.33	2.98	10.42
1984	1,148	95.38	2.26	0.17	2.18	363	4.96	87.05	3.31	4.68
1985	1,187	93.09	3.54	0.00	3.37	412	3.88	85.68	4.37	6.07
1986	1,313	90.25	3.73	0.15	5.86	522	3.07	81.99	5.75	9.20
1987	1,320	90.30	3.11	0.00	6.59	671	3.58	79.43	2.83	14.16
1988	1,334	91.90	2.77	0.00	5.32	747	3.61	79.65	3.88	12.85
1989	1,378	93.47	2.69	0.22	3.63	744	5.24	75.13	4.70	14.92
1990	1,427	94.67	2.10	0.14	3.08	690	3.19	75.07	8.12	13.62
1991	1,465	96.31	1.77	0.14	1.77	588	3.06	77.89	11.05	7.99
1992	1,614	96.47	1.24	0.00	2.29	523	6.31	78.59	6.12	8.99
1993	1,763	92.74	1.53	0.00	5.73	558	4.66	76.70	2.51	16.13
1994	1,845	95.83	0.76	0.05	3.36	708	4.10	86.02	2.12	7.77
1995	2,042	95.49	1.13	0.05	3.33	820	3.78	85.00	3.54	7.68
1996	2,234	94.54	0.63	0.00	4.83	883	4.76	80.97	1.81	12.46
1997	2,484	93.32	1.17	0.08	5.43	994	4.33	81.09	2.01	12.58
1998	2,761	90.44	2.21	0.14	7.21	1,307	2.98	83.86	3.67	9.49
1999	2,867	90.65	1.64	0.17	7.53	1,651	1.64	81.34	5.57	11.45
2000	2,923	91.58	1.78	0.24	6.40	1,747	2.18	83.34	6.24	8.24
2001	2,997	90.66	2.67	0.23	6.44	1,748	1.49	79.35	9.90	9.27
2002	3,106	89.41	3.96	0.42	6.21	1,673	1.79	79.62	9.50	9.09
2003	3,021	92.42	2.52	0.10	4.97	1,756	1.54	82.00	5.07	11.39
2004	3,135	94.10	1.02	0.03	4.85	1,876	2.19	84.54	2.03	11.25

Table 29

Summary Of One-Year Global Corporate Rating Transitions (cont.)

Year	Jan. 1 investment grade	--Investment-grade rating distribution at year-end--				Jan. 1 speculative grade	--Speculative-grade rating distribution at year-end--			
		Investment grade (%)	Speculative grade (%)*	Defaulted (%)§	Rating withdrawn (%)		Investment grade (%)†	Speculative grade (%)	Defaulted (%)	Rating withdrawn (%)
2005	3,244	92.94	1.57	0.03	5.46	2,057	3.11	82.35	1.51	13.03
2006	3,271	93.82	1.41	0.00	4.77	2,190	2.19	82.05	1.19	14.57
2007	3,347	90.08	1.76	0.00	8.16	2,301	3.04	81.79	0.91	14.25
2008	3,322	92.32	1.93	0.42	5.33	2,400	2.13	83.33	3.71	10.83
2009	3,354	89.48	3.37	0.33	6.83	2,252	1.29	77.04	9.95	11.72
2010	3,187	94.76	0.94	0.00	4.30	2,117	2.31	84.93	3.02	9.73
2011	3,239	93.36	1.76	0.03	4.85	2,383	2.35	84.05	1.85	11.75
2012	3,252	93.76	1.72	0.00	4.52	2,551	1.92	85.57	2.59	9.92
2013	3,262	94.97	1.38	0.00	3.65	2,773	2.13	85.29	2.31	10.28
2014	3,360	95.71	1.22	0.00	3.07	3,121	1.41	85.58	1.44	11.57
2015	3,514	92.83	2.56	0.00	4.61	3,387	1.36	83.76	2.78	12.11
2016	3,525	93.08	1.76	0.03	5.13	3,375	1.16	82.93	4.24	11.67
2017	3,511	94.19	1.42	0.00	4.39	3,368	1.45	82.13	2.46	13.95
2018	3,530	95.10	0.79	0.00	4.11	3,429	1.57	84.22	2.10	12.10
2019	3,604	95.12	0.67	0.06	4.16	3,627	0.99	85.03	2.54	11.44
Weighted average	97,066	93.17	1.83	0.09	4.92	63,302	2.20	82.78	3.61	11.41
Median		93.47	1.76	0.03	4.77		2.68	82.35	3.02	11.44
Standard deviation		2.07	0.88	0.12	1.60		1.32	3.30	2.65	2.67
Minimum		89.41	0.63	0.00	1.26		0.99	75.07	0.63	4.68
Maximum		97.38	3.96	0.42	8.16		6.31	89.94	11.05	16.13

*Fallen angels that survived to Jan. 1 of the year after they were downgraded. §Investment-grade defaulters. †Rising stars. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Multiyear transitions. Multiyear transitions were also calculated for periods of two up to 20 years. In this case, we compared the rating at the beginning of the multiyear period with the rating at the end. For example, three-year transition matrices were the result of comparing ratings at the beginning of the years 1981-2017 with the ratings at the end of the years 1983-2019. 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 in the first column changing to the ones listed in 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 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 to, for example, 'AA' from 'AA-' or to 'BBB+' from 'BBB-' are not considered to be rating transitions because the rating remained within the rating category.

Comparing transition rates with default rates. Rating transition rates may be compared with the marginal and cumulative default rates described in the previous sections. For example, the one-year default rate column of table 24 is equivalent to column 'D' of the average one-year transition matrix in table 21, as well as the cumulative average in the "Summary statistics" of the one-year 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 two-year column in table 32, while those in the 'D' column of table 34 are equivalent to adding up all the defaults behind the two-year column's annual default rates in table 32, divided by the sum of all the issuers in table 32 for the years 1981-2019.

The links between transition matrices and average cumulative default rates are 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). These tables can also be constructed for each rating category.

As an example, the two-year 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 2019 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 39 cohorts beginning with the 1981 cohort and ending with the 2019 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 39-year total issuer base for each rating level. We then divide this by the ratio of the total number of nonzero weights minus one and the total number of nonzero weights.

For the Gini ratios in tables 2, 27, and 28, the 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 (5.35%) 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 from the 1981 cohort through the 2012 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 study limits the reporting of default rates to the 15-year time horizon. However, the data were gathered for 39 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 (1981-2019) (%)

Year	Issuers	\--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1981	1,350	0.15	1.41	2.15	2.96	3.63	5.04	5.48	6.30	6.89	8.00	9.70	10.15	10.67	10.74	10.96
1982	1,399	1.22	1.93	2.79	3.50	4.93	5.29	6.08	6.58	7.72	9.58	10.08	10.65	10.72	10.94	10.94
1983	1,421	0.77	1.62	2.46	4.08	4.50	5.56	6.05	7.18	9.22	9.78	10.34	10.42	10.63	10.63	10.70
1984	1,511	0.93	1.99	3.84	4.30	5.36	6.09	7.28	9.00	9.60	10.19	10.26	10.46	10.46	10.59	10.59
1985	1,599	1.13	3.06	3.63	5.00	5.88	7.19	9.07	9.63	10.13	10.19	10.51	10.51	10.63	10.63	10.94
1986	1,835	1.74	2.34	3.65	4.52	5.94	7.85	8.50	9.05	9.21	9.48	9.59	9.81	9.92	10.19	10.57
1987	1,991	0.95	2.41	3.87	5.73	8.29	9.39	10.15	10.40	10.75	10.90	11.10	11.20	11.50	11.95	13.01
1988	2,081	1.39	3.03	5.19	8.27	9.37	10.14	10.38	10.86	11.00	11.29	11.48	11.82	12.49	13.46	14.46
1989	2,122	1.79	4.38	7.92	9.10	9.90	10.23	10.65	10.79	11.07	11.45	11.78	12.39	13.38	14.33	14.80
1990	2,117	2.74	6.14	7.56	8.36	8.69	9.16	9.26	9.64	10.11	10.49	11.24	12.23	13.27	13.79	13.93
1991	2,053	3.26	4.77	5.31	5.65	6.19	6.28	6.62	7.06	7.45	8.13	9.21	10.33	10.81	11.01	11.15
1992	2,137	1.50	2.01	2.34	2.95	3.09	3.42	3.84	4.16	4.87	5.90	7.02	7.44	7.63	7.77	7.91
1993	2,321	0.60	1.08	1.98	2.20	2.59	3.02	3.45	4.22	5.39	6.55	6.98	7.15	7.32	7.54	7.67
1994	2,553	0.63	1.76	2.15	2.62	3.09	3.96	4.97	6.35	7.56	8.07	8.30	8.46	8.73	8.85	9.44
1995	2,862	1.05	1.54	2.03	2.59	3.56	4.58	6.46	7.86	8.49	8.74	8.94	9.19	9.29	9.82	10.66
1996	3,117	0.51	1.09	1.83	2.98	4.01	5.77	7.31	8.02	8.31	8.53	8.76	8.89	9.43	10.27	10.43
1997	3,478	0.63	1.61	2.93	4.34	6.30	8.08	9.03	9.32	9.55	9.83	9.98	10.58	11.41	11.50	11.62
1998	4,068	1.28	3.24	5.24	7.89	10.10	11.36	11.85	12.17	12.49	12.64	13.27	14.21	14.31	14.43	14.55
1999	4,518	2.15	4.67	8.01	10.91	12.42	12.97	13.32	13.68	13.83	14.63	15.78	15.96	16.09	16.25	16.33
2000	4,670	2.48	6.08	9.27	10.99	11.69	12.14	12.51	12.72	13.60	14.99	15.16	15.33	15.48	15.63	15.70
2001	4,745	3.79	7.38	9.36	10.07	10.60	10.96	11.17	12.01	13.49	13.68	13.85	14.01	14.20	14.27	14.52
2002	4,779	3.60	5.63	6.42	6.88	7.24	7.45	8.39	9.98	10.19	10.36	10.55	10.80	10.86	11.11	11.38

Table 30

Static Pool Cumulative Global Corporate Default Rates Among All Ratings (1981-2019) (%) (cont.)

Year	Issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2003	4,777	1.93	2.72	3.22	3.62	3.83	4.81	6.64	6.91	7.08	7.35	7.64	7.72	8.00	8.27	8.56
2004	5,011	0.78	1.32	1.72	1.96	2.99	4.99	5.33	5.55	5.85	6.13	6.21	6.49	6.77	7.04	7.18
2005	5,301	0.60	1.02	1.36	2.57	4.87	5.36	5.66	6.00	6.30	6.43	6.79	7.09	7.34	7.47	7.73
2006	5,461	0.48	0.88	2.33	5.04	5.66	6.08	6.57	6.94	7.09	7.47	7.86	8.09	8.24	8.50	
2007	5,648	0.37	2.04	5.29	6.16	6.62	7.22	7.65	7.83	8.29	8.71	8.96	9.08	9.35		
2008	5,722	1.80	5.59	6.68	7.13	7.86	8.27	8.53	9.05	9.52	9.79	10.01	10.28			
2009	5,606	4.19	5.35	5.83	6.58	6.99	7.28	7.81	8.37	8.65	8.88	9.12				
2010	5,304	1.21	1.90	2.75	3.22	3.62	4.19	4.94	5.30	5.54	5.84					
2011	5,622	0.80	1.94	2.63	3.11	3.90	4.84	5.23	5.48	5.76						
2012	5,803	1.14	2.07	2.57	3.46	4.58	5.12	5.48	5.81							
2013	6,035	1.06	1.66	2.83	4.23	4.90	5.30	5.65								
2014	6,481	0.69	1.98	3.58	4.44	5.00	5.48									
2015	6,901	1.36	3.29	4.26	4.94	5.64										
2016	6,900	2.09	3.12	3.91	4.62											
2017	6,879	1.21	2.12	3.02												
2018	6,959	1.03	2.14													
2019	7,231	1.30														
Summary statistics																
Marginal average		1.48	1.44	1.27	1.08	0.92	0.77	0.66	0.56	0.51	0.47	0.41	0.34	0.32	0.30	0.31
Cumulative average		1.48	2.89	4.13	5.17	6.04	6.76	7.38	7.90	8.37	8.80	9.18	9.49	9.78	10.05	10.32
Standard deviation		0.97	1.69	2.20	2.50	2.62	2.58	2.51	2.48	2.46	2.41	2.36	2.44	2.53	2.60	2.63
Median		1.21	2.10	3.58	4.48	5.64	6.08	7.28	7.94	8.65	9.53	9.98	10.37	10.63	10.69	10.94
Minimum		0.15	0.88	1.36	1.96	2.59	3.02	3.45	4.16	4.87	5.84	6.21	6.49	6.77	7.04	7.18
Maximum		4.19	7.38	9.36	10.99	12.42	12.97	13.32	13.68	13.83	14.99	15.78	15.96	16.09	16.25	16.33

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 31

Static Pool Cumulative Global Corporate Default Rates Among All Investment-Grade Ratings (1981-2019) (%)

Year	Issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1981	1,032	0.00	0.39	0.39	0.48	0.68	1.07	1.36	2.13	2.33	3.10	4.17	4.36	4.55	4.55	4.75
1982	1,063	0.19	0.28	0.38	0.56	1.03	1.32	2.07	2.26	3.10	4.23	4.52	4.80	4.80	4.99	4.99

Table 31

Static Pool Cumulative Global Corporate Default Rates Among All Investment-Grade Ratings (1981-2019) (%) (cont.)

Year	Issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1983	1,085	0.09	0.37	0.46	0.92	1.11	1.66	1.75	2.58	3.69	4.06	4.33	4.33	4.52	4.52	4.52
1984	1,148	0.17	0.26	0.61	0.78	1.22	1.39	2.09	3.05	3.40	3.66	3.66	3.83	3.83	3.92	3.92
1985	1,187	0.00	0.17	0.25	0.84	1.01	1.77	2.78	3.12	3.37	3.37	3.62	3.62	3.79	3.79	3.96
1986	1,313	0.15	0.15	0.53	0.69	1.22	2.13	2.51	2.67	2.67	2.89	2.89	3.05	3.12	3.27	3.58
1987	1,320	0.00	0.15	0.38	0.83	1.74	2.27	2.42	2.50	2.65	2.65	2.80	2.88	3.03	3.18	4.02
1988	1,334	0.00	0.22	0.37	0.97	1.50	1.65	1.72	1.87	1.87	2.02	2.02	2.17	2.32	3.00	3.82
1989	1,378	0.22	0.36	0.65	1.23	1.38	1.45	1.60	1.60	1.60	1.60	1.81	1.96	2.76	3.41	3.77
1990	1,427	0.14	0.35	0.77	0.98	1.05	1.19	1.19	1.19	1.26	1.54	1.89	2.59	3.15	3.50	3.57
1991	1,465	0.14	0.27	0.41	0.48	0.61	0.61	0.61	0.68	1.02	1.37	2.12	2.66	2.94	3.00	3.07
1992	1,614	0.00	0.06	0.12	0.25	0.25	0.25	0.31	0.56	0.81	1.36	1.86	2.11	2.17	2.29	2.48
1993	1,763	0.00	0.06	0.17	0.17	0.23	0.40	0.74	1.08	1.70	2.33	2.55	2.55	2.67	2.78	2.84
1994	1,845	0.05	0.16	0.16	0.27	0.38	0.81	1.08	1.68	2.28	2.55	2.60	2.66	2.82	2.87	3.25
1995	2,042	0.05	0.05	0.10	0.20	0.69	0.93	1.67	2.25	2.50	2.55	2.60	2.74	2.79	3.18	3.53
1996	2,234	0.00	0.04	0.09	0.49	0.81	1.52	2.06	2.28	2.37	2.42	2.55	2.55	2.95	3.40	3.45
1997	2,484	0.08	0.16	0.48	0.81	1.37	2.09	2.46	2.54	2.58	2.70	2.70	3.10	3.50	3.54	3.66
1998	2,761	0.14	0.43	0.80	1.38	2.39	2.83	3.01	3.11	3.19	3.19	3.66	4.20	4.27	4.42	4.56
1999	2,867	0.17	0.49	0.91	1.88	2.34	2.48	2.58	2.72	2.72	3.24	3.91	3.98	4.12	4.29	4.33
2000	2,923	0.24	0.58	1.54	2.02	2.12	2.26	2.39	2.39	2.98	3.66	3.73	3.90	4.04	4.07	4.14
2001	2,997	0.23	1.23	1.67	1.84	2.00	2.14	2.14	2.67	3.40	3.44	3.60	3.77	3.84	3.87	4.07
2002	3,106	0.42	0.77	0.90	1.03	1.09	1.09	1.64	2.29	2.32	2.45	2.61	2.70	2.74	2.93	3.03
2003	3,021	0.10	0.20	0.30	0.33	0.33	0.86	1.59	1.62	1.72	1.79	1.89	1.92	2.15	2.25	2.32
2004	3,135	0.03	0.10	0.13	0.13	0.64	1.28	1.34	1.44	1.53	1.63	1.63	1.85	1.95	1.98	2.01
2005	3,244	0.03	0.06	0.06	0.62	1.20	1.29	1.39	1.48	1.57	1.57	1.79	1.88	1.88	1.91	1.97
2006	3,271	0.00	0.00	0.49	0.92	1.01	1.10	1.16	1.25	1.25	1.44	1.50	1.50	1.50	1.53	
2007	3,347	0.00	0.48	0.93	1.11	1.20	1.28	1.34	1.34	1.49	1.55	1.55	1.55	1.58		
2008	3,322	0.42	0.81	0.96	1.08	1.17	1.23	1.23	1.38	1.51	1.51	1.54	1.57			
2009	3,354	0.33	0.45	0.54	0.60	0.63	0.63	0.78	0.89	0.89	0.92	0.95				
2010	3,187	0.00	0.03	0.06	0.09	0.09	0.25	0.38	0.38	0.44	0.50					
2011	3,239	0.03	0.06	0.06	0.06	0.09	0.25	0.25	0.31	0.37						
2012	3,252	0.00	0.00	0.00	0.03	0.22	0.22	0.28	0.34							
2013	3,262	0.00	0.00	0.00	0.15	0.15	0.25	0.31								
2014	3,360	0.00	0.00	0.15	0.15	0.24	0.33									
2015	3,514	0.00	0.06	0.06	0.14	0.20										
2016	3,525	0.03	0.03	0.11	0.17											
2017	3,511	0.00	0.00	0.06												

Table 31

Static Pool Cumulative Global Corporate Default Rates Among All Investment-Grade Ratings (1981-2019) (%) (cont.)

Year	Issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
							--Time horizon (years)--									
2018	3,530	0.00	0.06													
2019	3,604	0.06														
Summary statistics																
Marginal average		0.09	0.15	0.18	0.22	0.23	0.24	0.22	0.20	0.20	0.20	0.19	0.16	0.15	0.15	0.17
Cumulative average		0.09	0.24	0.42	0.65	0.88	1.11	1.32	1.52	1.72	1.91	2.10	2.25	2.40	2.55	2.71
Standard deviation		0.12	0.27	0.41	0.53	0.64	0.72	0.79	0.85	0.92	0.97	0.98	0.96	0.94	0.88	0.82
Median		0.03	0.16	0.38	0.61	1.01	1.26	1.59	1.78	2.28	2.43	2.60	2.68	2.95	3.34	3.66
Minimum		0.00	0.00	0.00	0.03	0.09	0.22	0.25	0.31	0.37	0.50	0.95	1.50	1.50	1.53	1.97
Maximum		0.42	1.23	1.67	2.02	2.39	2.83	3.01	3.12	3.69	4.23	4.52	4.80	4.80	4.99	4.99

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 32

Static Pool Cumulative Global Corporate Default Rates Among All Speculative-Grade Ratings (1981-2019) (%)

Year	Issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
							--Time horizon (years)--									
1981	318	0.63	4.72	7.86	11.01	13.21	17.92	18.87	19.81	21.70	23.90	27.67	28.93	30.50	30.82	31.13
1982	336	4.46	7.14	10.42	12.80	17.26	17.86	18.75	20.24	22.32	26.49	27.68	29.17	29.46	29.76	29.76
1983	336	2.98	5.65	8.93	14.29	15.48	18.15	19.94	22.02	27.08	28.27	29.76	30.06	30.36	30.36	30.65
1984	363	3.31	7.44	14.05	15.43	18.46	20.94	23.69	27.82	29.20	30.85	31.13	31.40	31.40	31.68	31.68
1985	412	4.37	11.41	13.35	16.99	19.90	22.82	27.18	28.40	29.61	29.85	30.34	30.34	30.34	30.34	31.07
1986	522	5.75	7.85	11.49	14.18	17.82	22.22	23.56	25.10	25.67	26.05	26.44	26.82	27.01	27.59	28.16
1987	671	2.83	6.86	10.73	15.35	21.16	23.40	25.34	25.93	26.68	27.12	27.42	27.57	28.17	29.21	30.70
1988	747	3.88	8.03	13.79	21.29	23.43	25.30	25.84	26.91	27.31	27.84	28.38	29.05	30.66	32.13	33.47
1989	744	4.70	11.83	21.37	23.66	25.67	26.48	27.42	27.82	28.63	29.70	30.24	31.72	33.06	34.54	35.22
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	34.20	35.07	35.36
1991	588	11.05	15.99	17.52	18.54	20.07	20.41	21.60	22.96	23.47	25.00	26.87	29.42	30.44	30.95	31.29
1992	523	6.12	8.03	9.18	11.28	11.85	13.19	14.72	15.30	17.40	19.89	22.94	23.90	24.47	24.67	24.67
1993	558	2.51	4.30	7.71	8.60	10.04	11.29	12.01	14.16	17.03	19.89	20.97	21.68	22.04	22.58	22.94
1994	708	2.12	5.93	7.34	8.76	10.17	12.15	15.11	18.50	21.33	22.46	23.16	23.59	24.15	24.44	25.56
1995	820	3.54	5.24	6.83	8.54	10.73	13.66	18.41	21.83	23.41	24.15	24.76	25.24	25.49	26.34	28.41
1996	883	1.81	3.74	6.23	9.29	12.12	16.53	20.61	22.54	23.33	24.01	24.46	24.92	25.82	27.63	28.09
1997	994	2.01	5.23	9.05	13.18	18.61	23.04	25.45	26.26	26.96	27.67	28.17	29.28	31.19	31.39	31.49

Table 32

Static Pool Cumulative Global Corporate Default Rates Among All Speculative-Grade Ratings (1981-2019) (%) (cont.)

		--Time horizon (years)--													
Year	Issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998	1,307	3.67	9.18	14.61	21.65	26.40	29.38	30.53	31.29	32.13	32.59	33.59	35.35	35.50	35.58	35.65
1999	1,651	5.57	11.93	20.35	26.59	29.92	31.19	31.98	32.71	33.13	34.40	36.40	36.77	36.89	37.01	37.19
2000	1,747	6.24	15.28	22.21	25.99	27.70	28.68	29.42	29.99	31.37	33.94	34.29	34.46	34.63	34.97	35.03
2001	1,748	9.90	17.91	22.54	24.20	25.34	26.09	26.66	28.03	30.78	31.24	31.41	31.58	31.98	32.09	32.44
2002	1,673	9.50	14.64	16.68	17.75	18.65	19.25	20.92	24.27	24.81	25.04	25.28	25.82	25.94	26.30	26.90
2003	1,756	5.07	7.06	8.26	9.28	9.85	11.62	15.32	16.00	16.29	16.91	17.54	17.71	18.05	18.62	19.31
2004	1,876	2.03	3.36	4.37	5.01	6.93	11.19	11.99	12.42	13.06	13.65	13.86	14.23	14.82	15.51	15.83
2005	2,057	1.51	2.53	3.40	5.64	10.65	11.76	12.40	13.13	13.76	14.10	14.68	15.31	15.95	16.24	16.82
2006	2,190	1.19	2.19	5.07	11.19	12.60	13.52	14.66	15.43	15.80	16.48	17.35	17.95	18.31	18.90	
2007	2,301	0.91	4.30	11.65	13.52	14.52	15.86	16.82	17.25	18.17	19.12	19.73	20.03	20.64		
2008	2,400	3.71	12.21	14.58	15.50	17.13	18.00	18.63	19.67	20.63	21.25	21.75	22.33			
2009	2,252	9.95	12.66	13.72	15.50	16.47	17.18	18.29	19.49	20.20	20.74	21.27				
2010	2,117	3.02	4.72	6.80	7.94	8.93	10.11	11.81	12.71	13.23	13.89					
2011	2,383	1.85	4.49	6.13	7.26	9.06	11.08	12.00	12.51	13.09						
2012	2,551	2.59	4.70	5.84	7.84	10.15	11.37	12.11	12.78							
2013	2,773	2.31	3.61	6.17	9.02	10.49	11.25	11.94								
2014	3,121	1.44	4.10	7.27	9.07	10.12	11.02									
2015	3,387	2.78	6.64	8.62	9.92	11.28										
2016	3,375	4.24	6.34	7.88	9.27											
2017	3,368	2.46	4.33	6.12												
2018	3,429	2.10	4.29													
2019	3,627	2.54														
Summary statistics																
Marginal average		3.61	3.52	3.15	2.64	2.23	1.85	1.59	1.35	1.22	1.12	0.95	0.81	0.75	0.69	0.69
Cumulative average		3.61	7.00	9.93	12.31	14.26	15.85	17.19	18.31	19.31	20.22	20.98	21.62	22.20	22.74	23.28
Standard deviation		2.65	4.38	5.46	6.03	6.30	6.28	6.17	6.16	6.11	5.95	5.76	5.93	6.05	5.98	5.70
Median		3.02	6.49	9.05	12.99	15.48	17.89	18.87	21.93	23.41	25.02	26.87	28.25	29.46	30.05	30.70
Minimum		0.63	2.19	3.40	5.01	6.93	10.11	11.81	12.42	13.06	13.65	13.86	14.23	14.82	15.51	15.83
Maximum		11.05	18.12	22.54	26.59	29.92	31.19	31.98	32.71	33.13	34.40	36.40	36.77	36.89	37.01	37.19

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 33

Average One-Year Global Corporate Transition Matrix (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	87.03	9.08	0.53	0.05	0.11	0.03	0.05	0.00	3.12
	(7.17)	(7.22)	(0.83)	(0.25)	(0.28)	(0.17)	(0.34)	(0.00)	(2.42)
AA	0.49	87.21	7.74	0.48	0.05	0.06	0.02	0.02	3.92
	(0.53)	(5.22)	(4.17)	(0.68)	(0.19)	(0.20)	(0.07)	(0.08)	(1.82)
A	0.03	1.66	88.42	5.04	0.27	0.11	0.02	0.05	4.40
	(0.09)	(1.03)	(3.71)	(2.18)	(0.38)	(0.24)	(0.06)	(0.11)	(1.69)
BBB	0.01	0.09	3.37	86.32	3.51	0.44	0.10	0.16	6.00
	(0.04)	(0.15)	(1.55)	(3.91)	(1.60)	(0.66)	(0.21)	(0.25)	(1.55)
BB	0.01	0.03	0.11	4.73	77.80	6.57	0.54	0.61	9.60
	(0.05)	(0.08)	(0.24)	(1.87)	(4.48)	(2.98)	(0.72)	(0.83)	(2.19)
B	0.00	0.02	0.07	0.16	4.76	74.78	4.47	3.33	12.41
	(0.00)	(0.08)	(0.20)	(0.21)	(2.07)	(4.05)	(2.00)	(3.13)	(2.20)
CCC/C	0.00	0.00	0.11	0.19	0.58	12.96	43.64	27.08	15.45
	(0.00)	(0.00)	(0.41)	(0.63)	(0.90)	(7.51)	(8.42)	(10.50)	(5.09)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 34

Average Two-Year Global Corporate Transition Matrix (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	75.65	16.22	1.43	0.11	0.24	0.05	0.11	0.03	6.17
	(10.10)	(10.59)	(1.47)	(0.30)	(0.46)	(0.23)	(0.41)	(0.17)	(4.24)
AA	0.87	76.14	13.79	1.23	0.18	0.14	0.02	0.06	7.57
	(0.70)	(8.17)	(5.95)	(1.10)	(0.33)	(0.29)	(0.06)	(0.12)	(2.93)
A	0.04	2.98	78.30	8.81	0.71	0.25	0.04	0.14	8.74
	(0.07)	(1.67)	(5.75)	(2.89)	(0.78)	(0.41)	(0.10)	(0.19)	(2.68)
BBB	0.02	0.17	6.17	74.91	5.66	1.00	0.20	0.45	11.42
	(0.08)	(0.23)	(2.43)	(6.10)	(2.04)	(1.08)	(0.30)	(0.63)	(2.49)
BB	0.01	0.04	0.27	8.45	60.77	9.82	0.99	1.96	17.68
	(0.06)	(0.10)	(0.49)	(2.77)	(6.46)	(2.72)	(0.90)	(2.19)	(3.04)
B	0.00	0.03	0.13	0.38	8.08	55.80	5.22	7.83	22.53
	(0.00)	(0.11)	(0.29)	(0.44)	(3.09)	(5.10)	(1.85)	(5.69)	(3.68)
CCC/C	0.00	0.00	0.14	0.48	1.04	17.19	20.75	36.49	23.91
	(0.00)	(0.00)	(0.47)	(1.14)	(1.13)	(7.39)	(7.48)	(11.83)	(7.05)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 35

Average Three-Year Global Corporate Transition Matrix (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	65.41	22.23	2.33	0.32	0.27	0.08	0.11	0.13	9.12
	(11.48)	(12.27)	(1.74)	(0.76)	(0.53)	(0.29)	(0.41)	(0.37)	(5.24)
AA	1.16	66.83	18.21	1.98	0.34	0.21	0.03	0.12	11.13
	(0.84)	(9.57)	(6.21)	(1.41)	(0.50)	(0.44)	(0.07)	(0.18)	(4.03)
A	0.05	3.88	69.88	11.37	1.18	0.41	0.09	0.23	12.91
	(0.09)	(2.12)	(6.86)	(2.90)	(1.01)	(0.59)	(0.13)	(0.28)	(3.45)
BBB	0.02	0.26	8.20	65.71	6.89	1.51	0.27	0.80	16.34
	(0.06)	(0.39)	(2.88)	(7.12)	(2.01)	(1.29)	(0.36)	(0.93)	(3.22)
BB	0.01	0.05	0.46	10.90	48.14	11.19	1.20	3.61	24.43
	(0.05)	(0.13)	(0.68)	(3.18)	(7.33)	(2.72)	(0.89)	(3.46)	(3.71)
B	0.00	0.02	0.18	0.70	9.78	41.97	4.76	11.94	30.63
	(0.05)	(0.11)	(0.41)	(0.76)	(3.22)	(5.34)	(1.58)	(7.15)	(4.78)
CCC/C	0.00	0.00	0.12	0.56	1.57	17.42	9.98	41.08	29.27
	(0.00)	(0.00)	(0.48)	(1.16)	(1.60)	(6.60)	(5.85)	(11.64)	(8.31)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 36

Average Five-Year Global Corporate Transition Matrix (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	49.51	28.70	4.79	0.80	0.35	0.16	0.08	0.35	15.27
	(11.84)	(13.41)	(2.72)	(1.54)	(0.54)	(0.40)	(0.28)	(0.60)	(6.53)
AA	1.44	51.90	24.20	3.50	0.55	0.37	0.04	0.32	17.67
	(0.96)	(9.35)	(5.19)	(1.81)	(0.63)	(0.59)	(0.10)	(0.38)	(4.71)
A	0.07	4.97	56.72	14.66	1.92	0.64	0.14	0.50	20.37
	(0.10)	(2.30)	(7.62)	(2.48)	(1.19)	(0.83)	(0.18)	(0.44)	(4.07)
BBB	0.02	0.40	10.42	52.67	7.58	2.06	0.37	1.69	24.79
	(0.07)	(0.53)	(2.92)	(7.61)	(1.60)	(1.44)	(0.38)	(1.46)	(4.26)
BB	0.01	0.08	0.93	12.63	32.58	11.02	1.18	7.07	34.51
	(0.05)	(0.17)	(0.97)	(3.03)	(7.38)	(2.04)	(0.91)	(4.88)	(4.11)
B	0.01	0.02	0.23	1.41	10.09	25.53	2.98	18.02	41.70
	(0.10)	(0.08)	(0.53)	(1.17)	(2.70)	(5.01)	(0.95)	(8.30)	(5.57)
CCC/C	0.00	0.00	0.10	0.68	2.66	12.77	2.52	45.67	35.59
	(0.00)	(0.00)	(0.46)	(1.70)	(2.06)	(4.73)	(3.47)	(11.83)	(8.97)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 37

Average Seven-Year Global Corporate Transition Matrix (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	38.00	32.43	6.86	1.49	0.35	0.19	0.11	0.51	20.06
	(11.04)	(13.80)	(2.97)	(1.92)	(0.55)	(0.42)	(0.31)	(0.74)	(6.81)
AA	1.49	40.67	27.58	4.68	0.73	0.37	0.03	0.53	23.91
	(0.95)	(7.00)	(4.16)	(1.77)	(0.61)	(0.50)	(0.08)	(0.53)	(4.52)
A	0.07	5.34	47.34	16.40	2.40	0.79	0.14	0.86	26.67
	(0.12)	(1.83)	(7.06)	(1.77)	(1.29)	(0.88)	(0.17)	(0.57)	(3.98)
BBB	0.03	0.53	11.20	43.96	7.28	2.24	0.36	2.61	31.79
	(0.10)	(0.59)	(2.69)	(7.15)	(0.91)	(1.18)	(0.32)	(1.79)	(4.39)
BB	0.00	0.08	1.30	12.82	23.74	9.77	0.93	10.15	41.20
	(0.00)	(0.17)	(1.05)	(3.09)	(6.68)	(2.05)	(0.69)	(5.54)	(3.61)
B	0.00	0.02	0.31	1.98	9.07	16.85	1.72	22.23	47.81
	(0.07)	(0.08)	(0.57)	(1.39)	(1.92)	(4.51)	(0.57)	(8.39)	(5.07)
CCC/C	0.00	0.00	0.19	0.93	3.62	7.83	1.39	48.88	37.16
	(0.00)	(0.00)	(0.57)	(2.00)	(1.93)	(3.77)	(1.91)	(11.13)	(8.85)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 38

Average 10-Year Global Corporate Transition Matrix (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	25.01	34.17	9.44	2.83	0.17	0.19	0.06	0.72	27.42
	(9.12)	(13.65)	(3.05)	(2.27)	(0.33)	(0.47)	(0.22)	(0.76)	(6.61)
AA	1.23	28.62	29.44	6.66	0.94	0.41	0.02	0.79	31.88
	(0.79)	(4.09)	(3.45)	(1.75)	(0.71)	(0.35)	(0.08)	(0.59)	(3.75)
A	0.10	5.24	37.03	17.45	2.69	0.93	0.13	1.46	34.98
	(0.16)	(1.51)	(5.62)	(2.02)	(0.85)	(0.63)	(0.16)	(0.81)	(4.18)
BBB	0.02	0.64	11.24	34.71	6.65	2.24	0.28	4.05	40.17
	(0.09)	(0.65)	(3.03)	(6.38)	(1.17)	(1.07)	(0.22)	(2.17)	(4.02)
BB	0.01	0.07	1.68	11.45	16.21	7.87	0.64	14.15	47.92
	(0.07)	(0.13)	(1.05)	(2.82)	(5.00)	(2.15)	(0.38)	(6.14)	(2.88)
B	0.00	0.03	0.37	2.40	7.16	9.49	0.92	27.54	52.09
	(0.00)	(0.07)	(0.59)	(1.68)	(1.85)	(3.08)	(0.55)	(8.40)	(4.76)
CCC/C	0.00	0.00	0.14	0.79	3.61	3.93	0.32	51.78	39.43
	(0.00)	(0.00)	(0.54)	(0.92)	(2.40)	(3.12)	(0.61)	(11.74)	(9.40)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 39

Average 15-Year Global Corporate Transition Matrix (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	12.56	31.88	14.49	2.87	0.59	0.41	0.03	0.93	36.24
	(6.73)	(10.75)	(3.12)	(0.97)	(0.43)	(0.59)	(0.16)	(0.81)	(4.50)
AA	0.88	17.21	27.96	8.96	1.18	0.61	0.03	1.12	42.06
	(0.77)	(3.35)	(3.62)	(2.10)	(0.74)	(0.45)	(0.10)	(0.55)	(3.19)
A	0.13	4.09	26.03	17.59	2.92	1.07	0.12	2.46	45.58
	(0.19)	(1.44)	(3.82)	(1.70)	(1.00)	(0.52)	(0.11)	(0.88)	(3.91)
BBB	0.00	0.73	9.69	24.75	5.46	2.12	0.24	6.57	50.45
	(0.00)	(0.47)	(3.15)	(3.12)	(0.70)	(1.08)	(0.19)	(2.20)	(2.72)
BB	0.00	0.13	2.03	9.25	9.37	5.43	0.46	19.55	53.78
	(0.00)	(0.19)	(1.04)	(2.39)	(2.75)	(1.72)	(0.37)	(5.71)	(2.87)
B	0.00	0.08	0.54	2.76	4.22	4.43	0.46	33.26	54.25
	(0.00)	(0.09)	(0.46)	(1.49)	(1.19)	(1.57)	(0.36)	(8.81)	(6.52)
CCC/C	0.00	0.00	0.55	1.18	2.70	1.45	0.14	53.67	40.32
	(0.00)	(0.00)	(1.36)	(1.21)	(2.39)	(1.07)	(0.72)	(12.31)	(11.52)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 40

Average 20-Year Global Corporate Transition Matrix (1981-2019) (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
AAA	5.14	26.68	17.86	3.68	0.89	0.78	0.04	1.27	43.65
	(3.59)	(7.40)	(4.63)	(1.51)	(0.42)	(0.69)	(0.16)	(0.94)	(4.78)
AA	0.61	9.70	23.74	11.31	1.39	0.79	0.06	1.72	50.68
	(0.67)	(1.87)	(3.67)	(2.04)	(0.56)	(0.46)	(0.14)	(0.92)	(1.87)
A	0.12	2.63	19.04	15.65	2.87	1.35	0.17	3.83	54.35
	(0.18)	(0.94)	(2.42)	(0.94)	(0.88)	(0.69)	(0.16)	(1.24)	(2.09)
BBB	0.00	0.64	7.27	18.75	4.25	1.67	0.14	9.40	57.88
	(0.00)	(0.33)	(1.24)	(1.38)	(0.80)	(0.77)	(0.20)	(1.63)	(2.21)
BB	0.00	0.15	1.63	6.93	5.30	4.01	0.45	25.31	56.22
	(0.00)	(0.24)	(0.53)	(1.48)	(1.87)	(1.10)	(0.40)	(3.29)	(3.08)
B	0.00	0.12	0.42	2.19	2.49	2.38	0.27	39.43	52.69
	(0.00)	(0.17)	(0.23)	(1.12)	(0.84)	(0.91)	(0.24)	(5.38)	(4.87)
CCC/C	0.00	0.00	0.27	1.08	2.42	0.40	0.00	58.28	37.55
	(0.00)	(0.00)	(0.87)	(1.21)	(3.07)	(0.77)	(0.00)	(8.50)	(9.58)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 41

Average Multiyear Global Corporate Transition Matrices (1981-2019)--All Financials (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
AAA	87.04	9.56	0.34	0.09	0.09	0.04	0.09	0.00	2.76
	(10.12)	(9.86)	(0.98)	(0.37)	(0.38)	(0.24)	(0.48)	(0.00)	(2.63)
AA	0.46	87.39	7.82	0.34	0.02	0.02	0.03	0.03	3.88
	(0.56)	(6.37)	(5.64)	(0.64)	(0.08)	(0.08)	(0.16)	(0.12)	(1.90)
A	0.02	2.16	88.84	3.70	0.19	0.06	0.01	0.08	4.93
	(0.12)	(1.68)	(4.03)	(2.57)	(0.46)	(0.15)	(0.04)	(0.18)	(2.04)
BBB	0.00	0.20	4.48	84.08	3.26	0.39	0.12	0.24	7.22
	(0.00)	(0.52)	(2.90)	(4.65)	(2.46)	(0.80)	(0.26)	(0.52)	(2.00)
BB	0.00	0.09	0.17	6.09	76.51	4.66	0.67	0.65	11.16
	(0.00)	(0.27)	(0.69)	(4.05)	(7.25)	(3.00)	(1.62)	(1.24)	(4.91)
B	0.00	0.03	0.09	0.39	6.64	76.27	2.87	2.70	11.02
	(0.00)	(0.21)	(0.62)	(0.83)	(4.31)	(7.77)	(3.44)	(3.53)	(3.99)
CCC/C	0.00	0.00	0.00	0.00	1.27	17.30	44.51	17.72	19.20
	(0.00)	(0.00)	(0.00)	(0.00)	(4.00)	(12.07)	(18.84)	(16.14)	(11.92)
Three-year									
AAA	64.85	24.16	1.62	0.34	0.21	0.09	0.17	0.21	8.35
	(16.42)	(16.61)	(2.23)	(1.13)	(0.57)	(0.35)	(0.60)	(0.55)	(6.01)
AA	1.10	67.20	18.29	1.64	0.17	0.15	0.03	0.19	11.22
	(1.01)	(11.14)	(8.39)	(1.64)	(0.33)	(0.35)	(0.10)	(0.29)	(4.22)
A	0.04	5.08	71.12	7.66	0.99	0.22	0.10	0.37	14.42
	(0.15)	(3.45)	(7.64)	(2.76)	(1.25)	(0.46)	(0.21)	(0.52)	(4.77)
BBB	0.00	0.56	10.71	61.00	5.40	0.97	0.31	1.13	19.91
	(0.00)	(1.14)	(6.13)	(6.75)	(2.70)	(1.01)	(0.65)	(1.38)	(3.95)
BB	0.00	0.12	0.71	13.87	45.55	7.69	0.84	2.76	28.46
	(0.00)	(0.39)	(1.55)	(5.96)	(9.53)	(3.96)	(1.55)	(3.83)	(7.01)
B	0.00	0.00	0.31	1.67	13.34	47.27	3.06	7.95	26.40
	(0.00)	(0.00)	(0.96)	(2.48)	(6.65)	(10.62)	(2.89)	(7.13)	(6.39)
CCC/C	0.00	0.00	0.22	0.45	1.57	25.56	10.09	24.89	37.22
	(0.00)	(0.00)	(3.39)	(2.74)	(3.72)	(15.32)	(10.19)	(16.60)	(15.68)
10-year									
AAA	22.41	37.78	8.94	2.16	0.13	0.31	0.09	1.01	27.17
	(12.26)	(16.41)	(5.13)	(2.70)	(0.39)	(0.68)	(0.32)	(1.23)	(8.42)
AA	1.03	30.99	29.35	4.77	0.39	0.36	0.03	1.18	31.89
	(0.88)	(6.04)	(5.94)	(2.18)	(0.37)	(0.41)	(0.09)	(1.17)	(5.18)
A	0.08	7.60	39.11	9.27	1.98	0.50	0.14	1.81	39.50

Table 41

Average Multiyear Global Corporate Transition Matrices (1981-2019)--All Financials (%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.35)	(2.90)	(5.55)	(2.73)	(1.14)	(0.45)	(0.23)	(1.08)	(5.75)
BBB	0.00	1.62	13.75	27.19	3.37	1.02	0.46	4.65	47.94
	(0.00)	(2.95)	(3.54)	(6.05)	(1.67)	(0.49)	(0.63)	(2.01)	(5.24)
BB	0.00	0.09	3.30	14.62	11.92	5.62	0.09	9.52	54.86
	(0.00)	(0.36)	(3.55)	(4.70)	(7.55)	(3.13)	(0.27)	(8.65)	(7.20)
B	0.00	0.00	1.37	5.34	9.59	14.18	0.55	15.21	53.77
	(0.00)	(0.00)	(2.58)	(5.83)	(4.49)	(7.85)	(1.78)	(11.02)	(11.13)
CCC/C	0.00	0.00	0.35	1.06	3.89	8.48	0.00	31.45	54.77
	(0.00)	(0.00)	(4.27)	(2.34)	(5.46)	(9.05)	(0.00)	(19.45)	(16.95)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 42

Average Multiyear Global Corporate Transition Matrices (1981-2019)--Insurance (%)

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	0.56	87.68	7.29	0.35	0.04	0.04	0.06	0.04	3.94
	(1.01)	(6.57)	(5.65)	(0.93)	(0.15)	(0.14)	(0.47)	(0.15)	(2.25)
A	0.01	2.39	90.00	2.93	0.18	0.07	0.01	0.11	4.29
	(0.07)	(2.29)	(4.50)	(2.53)	(0.51)	(0.24)	(0.06)	(0.25)	(1.90)
BBB	0.00	0.14	5.87	82.58	2.67	0.35	0.29	0.20	7.91
	(0.00)	(0.71)	(3.27)	(4.54)	(2.66)	(1.03)	(0.76)	(0.69)	(3.08)
BB	0.00	0.10	0.51	8.35	73.12	3.87	1.12	0.61	12.32
	(0.00)	(0.86)	(2.09)	(9.01)	(12.13)	(4.40)	(3.10)	(2.14)	(7.15)
B	0.00	0.16	0.32	0.79	6.83	74.76	2.22	2.06	12.86
	(0.00)	(1.11)	(2.57)	(2.83)	(8.06)	(12.31)	(4.17)	(4.89)	(6.58)
CCC/C	0.00	0.00	0.00	0.00	3.53	12.94	40.00	23.53	20.00
	(0.00)	(0.00)	(0.00)	(0.00)	(11.55)	(21.97)	(31.50)	(27.74)	(28.06)
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	1.30	68.56	16.64	1.65	0.18	0.23	0.07	0.27	11.11
	(2.03)	(11.18)	(7.16)	(2.13)	(0.50)	(0.58)	(0.19)	(0.43)	(4.11)
A	0.05	5.39	74.45	5.60	0.67	0.13	0.12	0.46	13.13

Table 42

Average Multiyear Global Corporate Transition Matrices (1981-2019)--Insurance (%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.16)	(4.73)	(9.12)	(3.09)	(1.27)	(0.65)	(0.24)	(0.95)	(4.34)
BBB	0.00	0.47	13.67	59.13	4.02	0.88	0.41	1.04	20.37
	(0.00)	(1.55)	(5.82)	(6.79)	(3.03)	(0.97)	(1.15)	(1.80)	(4.16)
BB	0.00	0.11	1.80	16.95	41.19	5.16	1.35	2.36	31.09
	(0.00)	(0.90)	(4.20)	(11.56)	(14.35)	(4.55)	(4.07)	(4.91)	(10.91)
B	0.00	0.00	1.73	3.46	13.46	44.62	1.35	6.92	28.46
	(0.00)	(0.00)	(5.14)	(7.75)	(11.06)	(13.66)	(2.53)	(8.74)	(10.87)
CCC/C	0.00	0.00	1.19	2.38	4.76	17.86	14.29	29.76	29.76
	(0.00)	(0.00)	(11.04)	(10.84)	(10.40)	(22.65)	(18.59)	(28.88)	(30.15)
10-year									
AAA	22.81	40.98	9.62	1.64	0.14	0.50	0.14	1.64	22.52
	(14.39)	(15.62)	(6.80)	(2.68)	(0.48)	(1.17)	(0.55)	(1.81)	(10.58)
AA	1.31	33.23	28.21	3.70	0.58	0.58	0.06	1.81	30.51
	(1.75)	(6.28)	(5.56)	(2.39)	(0.72)	(0.74)	(0.16)	(1.16)	(5.27)
A	0.20	7.76	45.36	6.49	1.43	0.38	0.32	2.15	35.90
	(1.23)	(4.93)	(10.38)	(2.90)	(1.79)	(0.39)	(0.50)	(1.76)	(6.77)
BBB	0.00	1.62	18.07	29.75	2.30	0.58	0.21	3.67	43.79
	(0.00)	(4.33)	(6.59)	(4.87)	(2.34)	(0.44)	(0.69)	(4.52)	(4.25)
BB	0.00	0.37	5.67	16.64	10.97	3.47	0.00	12.43	50.46
	(0.00)	(1.49)	(7.37)	(8.03)	(7.32)	(3.75)	(0.00)	(15.26)	(16.94)
B	0.00	0.00	5.30	11.74	9.85	9.85	0.76	16.29	46.21
	(0.00)	(0.00)	(10.00)	(17.54)	(11.55)	(9.17)	(5.37)	(12.23)	(19.24)
CCC/C	0.00	0.00	1.59	0.00	1.59	0.00	0.00	47.62	49.21
	(0.00)	(0.00)	(12.81)	(0.00)	(4.60)	(0.00)	(0.00)	(31.07)	(31.15)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 43

Average Multiyear Global Corporate Transition Matrices (1981-2019)--Financial Institutions (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
AAA	86.08	8.71	0.43	0.21	0.11	0.00	0.00	0.00	4.46
	(13.47)	(12.96)	(1.30)	(0.94)	(0.79)	(0.00)	(0.00)	(0.00)	(4.52)
AA	0.36	87.10	8.37	0.34	0.00	0.00	0.00	0.02	3.82
	(0.63)	(7.66)	(7.12)	(0.72)	(0.00)	(0.00)	(0.00)	(0.10)	(2.32)

Table 43

Average Multiyear Global Corporate Transition Matrices (1981-2019)--Financial Institutions (%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
A	0.02	1.96	87.82	4.37	0.20	0.05	0.01	0.06	5.50
	(0.19)	(2.00)	(5.44)	(3.75)	(0.67)	(0.15)	(0.06)	(0.23)	(2.92)
BBB	0.00	0.23	3.82	84.80	3.54	0.41	0.04	0.26	6.89
	(0.00)	(0.67)	(3.37)	(5.94)	(3.18)	(1.03)	(0.20)	(0.70)	(2.38)
BB	0.00	0.08	0.08	5.48	77.43	4.87	0.55	0.66	10.85
	(0.00)	(0.30)	(0.65)	(3.81)	(7.54)	(3.80)	(1.53)	(1.37)	(5.74)
B	0.00	0.00	0.04	0.29	6.59	76.62	3.02	2.84	10.60
	(0.00)	(0.00)	(0.52)	(0.88)	(4.58)	(8.09)	(4.08)	(4.27)	(4.19)
CCC/C	0.00	0.00	0.00	0.00	0.77	18.25	45.50	16.45	19.02
	(0.00)	(0.00)	(0.00)	(0.00)	(3.67)	(12.51)	(19.35)	(14.94)	(11.78)
Three-year									
AAA	63.64	21.18	1.28	0.86	0.32	0.00	0.00	0.00	12.73
	(19.03)	(19.30)	(3.03)	(2.14)	(1.04)	(0.00)	(0.00)	(0.00)	(7.90)
AA	0.90	65.81	20.00	1.63	0.16	0.07	0.00	0.09	11.33
	(0.93)	(12.93)	(10.51)	(2.01)	(0.53)	(0.37)	(0.00)	(0.25)	(4.90)
A	0.02	4.82	68.31	9.41	1.25	0.29	0.08	0.30	15.52
	(0.21)	(3.93)	(8.47)	(4.01)	(1.98)	(0.52)	(0.26)	(0.59)	(5.97)
BBB	0.00	0.60	9.26	61.92	6.08	1.02	0.26	1.17	19.69
	(0.00)	(1.22)	(6.84)	(8.35)	(4.02)	(1.39)	(0.78)	(1.88)	(5.22)
BB	0.00	0.13	0.41	13.01	46.78	8.40	0.69	2.87	27.71
	(0.00)	(0.49)	(1.23)	(5.53)	(9.76)	(4.56)	(1.73)	(4.21)	(8.28)
B	0.00	0.00	0.00	1.27	13.31	47.86	3.43	8.18	25.94
	(0.00)	(0.00)	(0.00)	(2.02)	(7.66)	(11.33)	(3.69)	(8.53)	(7.55)
CCC/C	0.00	0.00	0.00	0.00	0.83	27.35	9.12	23.76	38.95
	(0.00)	(0.00)	(0.00)	(0.00)	(3.81)	(16.24)	(12.44)	(16.06)	(17.00)
10-year									
AAA	21.77	32.60	7.83	3.00	0.12	0.00	0.00	0.00	34.68
	(14.25)	(19.64)	(5.51)	(4.77)	(0.59)	(0.00)	(0.00)	(0.00)	(11.54)
AA	0.75	28.77	30.48	5.83	0.20	0.15	0.00	0.55	33.27
	(0.86)	(8.97)	(7.90)	(3.50)	(0.50)	(0.30)	(0.00)	(1.78)	(6.82)
A	0.00	7.49	34.72	11.22	2.37	0.59	0.02	1.57	42.02
	(0.00)	(3.51)	(4.90)	(5.46)	(2.18)	(0.65)	(0.07)	(1.31)	(6.44)
BBB	0.00	1.62	11.66	25.95	3.89	1.24	0.58	5.12	49.94
	(0.00)	(2.80)	(4.07)	(7.65)	(2.67)	(0.73)	(0.93)	(2.16)	(7.06)
BB	0.00	0.00	2.58	14.00	12.21	6.27	0.11	8.62	56.22
	(0.00)	(0.00)	(3.02)	(5.16)	(9.52)	(3.90)	(0.33)	(7.72)	(10.04)

Table 43

Average Multiyear Global Corporate Transition Matrices (1981-2019)--Financial Institutions (%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
B	0.00	0.00	0.50	3.93	9.53	15.13	0.50	14.97	55.43
	(0.00)	(0.00)	(1.54)	(4.08)	(5.08)	(8.60)	(0.93)	(13.83)	(11.33)
CCC/C	0.00	0.00	0.00	1.36	4.55	10.91	0.00	26.82	56.36
	(0.00)	(0.00)	(0.00)	(3.08)	(7.31)	(11.00)	(0.00)	(18.69)	(15.77)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 44

Average Multiyear Global Corporate Transition Matrices (1981-2019)--Nonfinancials (%)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
One-year									
AAA	87.03	8.30	0.84	0.00	0.14	0.00	0.00	0.00	3.70
	(8.58)	(7.79)	(1.67)	(0.00)	(0.47)	(0.00)	(0.00)	(0.00)	(4.16)
AA	0.54	86.97	7.64	0.67	0.09	0.12	0.00	0.00	3.98
	(0.76)	(5.66)	(3.71)	(1.01)	(0.31)	(0.36)	(0.00)	(0.00)	(2.57)
A	0.03	1.22	88.04	6.21	0.35	0.16	0.02	0.03	3.94
	(0.11)	(1.23)	(4.26)	(2.48)	(0.50)	(0.36)	(0.09)	(0.08)	(2.18)
BBB	0.01	0.05	2.95	87.16	3.61	0.46	0.10	0.13	5.53
	(0.04)	(0.12)	(1.67)	(4.50)	(1.77)	(0.71)	(0.23)	(0.26)	(1.85)
BB	0.01	0.01	0.10	4.44	78.08	6.97	0.51	0.61	9.27
	(0.06)	(0.09)	(0.25)	(1.86)	(4.73)	(3.33)	(0.63)	(0.87)	(2.20)
B	0.00	0.02	0.07	0.14	4.54	74.60	4.65	3.40	12.57
	(0.00)	(0.08)	(0.20)	(0.21)	(2.08)	(3.94)	(2.17)	(3.25)	(2.37)
CCC/C	0.00	0.00	0.12	0.21	0.48	12.33	43.52	28.42	14.91
	(0.00)	(0.00)	(0.47)	(0.71)	(0.82)	(7.92)	(8.67)	(10.93)	(5.20)
Three-year									
AAA	66.34	19.04	3.51	0.28	0.35	0.07	0.00	0.00	10.40
	(11.55)	(11.01)	(3.19)	(1.30)	(0.86)	(0.32)	(0.00)	(0.00)	(7.36)
AA	1.23	66.33	18.10	2.45	0.55	0.29	0.02	0.03	11.00
	(1.07)	(10.12)	(5.67)	(2.01)	(0.79)	(0.59)	(0.08)	(0.11)	(5.00)
A	0.07	2.88	68.84	14.48	1.34	0.56	0.08	0.11	11.64
	(0.11)	(2.45)	(7.06)	(3.71)	(1.13)	(0.79)	(0.15)	(0.19)	(3.90)
BBB	0.02	0.14	7.27	67.47	7.45	1.71	0.26	0.68	15.00
	(0.08)	(0.28)	(3.13)	(8.34)	(2.25)	(1.50)	(0.34)	(1.03)	(3.88)
BB	0.01	0.04	0.41	10.30	48.67	11.91	1.28	3.78	23.61

Table 44

Average Multiyear Global Corporate Transition Matrices (1981-2019)--Nonfinancials (%) (cont.)

From/to	AAA	AA	A	BBB	BB	B	CCC/C	D	NR
	(0.06)	(0.14)	(0.66)	(3.29)	(7.76)	(3.18)	(0.88)	(3.62)	(3.98)
B	0.00	0.03	0.17	0.59	9.39	41.39	4.95	12.38	31.10
	(0.05)	(0.11)	(0.42)	(0.72)	(3.13)	(5.05)	(1.75)	(7.36)	(5.21)
CCC/C	0.00	0.00	0.10	0.58	1.57	16.18	9.97	43.55	28.05
	(0.00)	(0.00)	(0.38)	(1.15)	(1.75)	(6.42)	(6.32)	(12.26)	(8.35)
10-year									
AAA	29.43	28.00	10.29	3.98	0.23	0.00	0.00	0.23	27.85
	(9.73)	(9.74)	(4.16)	(3.56)	(0.61)	(0.00)	(0.00)	(0.55)	(9.29)
AA	1.47	25.83	29.55	8.87	1.59	0.46	0.02	0.34	31.88
	(1.06)	(8.21)	(3.56)	(3.86)	(1.15)	(0.53)	(0.10)	(0.53)	(4.93)
A	0.11	3.61	35.59	23.10	3.18	1.22	0.12	1.21	31.86
	(0.16)	(2.39)	(5.82)	(4.02)	(1.21)	(0.81)	(0.18)	(0.94)	(3.98)
BBB	0.02	0.31	10.42	37.19	7.73	2.64	0.22	3.85	37.62
	(0.11)	(0.32)	(3.92)	(7.52)	(1.39)	(1.38)	(0.22)	(2.48)	(4.72)
BB	0.01	0.07	1.40	10.91	16.94	8.26	0.74	14.94	46.72
	(0.08)	(0.15)	(0.99)	(3.42)	(4.97)	(2.48)	(0.42)	(6.24)	(3.32)
B	0.00	0.03	0.27	2.13	6.94	9.05	0.96	28.68	51.94
	(0.00)	(0.07)	(0.61)	(1.54)	(1.86)	(2.74)	(0.55)	(8.35)	(4.85)
CCC/C	0.00	0.00	0.11	0.75	3.57	3.25	0.37	54.85	37.11
	(0.00)	(0.00)	(0.37)	(1.01)	(2.57)	(2.76)	(0.71)	(11.74)	(9.46)

Note: Numbers in parentheses are weighted standard deviations, weighted by the issuer base. NR--Not rated. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Appendix II: Gini Methodology

We utilize the Lorenz curve, a graphical representation of the proportionality of a distribution, as one measure of ratings performance, and we summarize this via the Gini coefficient. For this study, the Lorenz curve is plotted with the x-axis showing the cumulative share of issuers, arranged by rating, while the y-axis represents the cumulative share of defaulters, also arranged by rating. For both axes of the Lorenz curve, the observations are ordered from the low end of the ratings scale ('CCC'/'C') to the high end ('AAA').

As an example, if 'CCC'/'C' rated entities made up 10% of the total population of issuers at the start of the time frame examined (x-axis) and 50% of the defaulters (y-axis), then the coordinate (10, 50) would be the first point on the curve. If S&P Global Ratings' corporate ratings only randomly approximated default risk, the Lorenz curve would fall along the diagonal. Its Gini coefficient--which is a summary statistic of the Lorenz curve--would thus be zero. If corporate ratings were perfectly rank ordered so that all defaults occurred only among the lowest-rated entities, the curve would capture all of the area above the diagonal on the graph (the ideal curve),

and its Gini coefficient would be 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 area A plus area 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

Sample Lorenz Curve
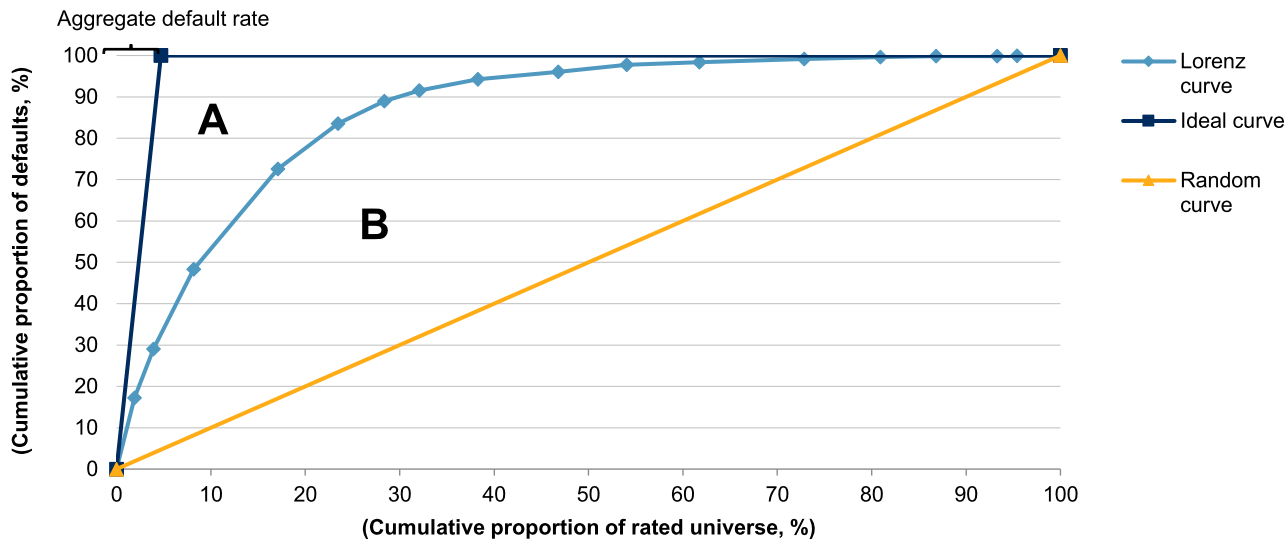
Source: S&P Global Ratings Research.

Appendix III: Defaults In Profile

In 2019, 118 companies, including 13 confidential issuers, defaulted on US$183.2 billion of debt. This appendix provides summaries of the events leading up to each publicly rated default and, in some cases, events following the default. We also list the defaulting instruments rated by S&P Global Ratings for each company.

Ultra Petroleum Corp.

- US$400 million revolver bank loan due Jan. 12, 2022

- US$500 million 7.125% senior notes due 2025

- US$700 million 6.875% senior notes due 2022

- US$975 million RBL term bank loan due April 12, 2024

On Jan. 2, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Colorado-based oil and gas exploration and production company Ultra Petroleum Corp. to 'SD' (selective default) from 'CC' following the closure of the company's announced exchange agreement involving its

6.875% notes due 2022 and 7.125% notes due 2025. We view the exchange as a selective default because investors received less value than the original principal amount outstanding on the securities.

On March 21, 2019, we raised our long-term issuer credit rating on Ultra Petroleum Corp. to 'CCC+' from 'SD' following the company's completion of several debt exchanges. The outlook was negative, reflecting our view that Ultra remained vulnerable and dependent on favorable business and financial conditions to meet its financial commitments.

On Sept. 25, 2019, we lowered our issuer credit rating on Ultra Petroleum to 'CCC-' from 'CCC+'. The company amended its credit agreement, announced another reduction in its borrowing base, and suspended drilling activity in response to unfavorable natural gas pricing. The company's amended credit facility reduced revolver commitments to $200 million (from $325 million) with a step-down to $120 million by February 2020. The amendment also removed all financial maintenance covenants and established maximum capital expenditure thresholds, including a $20 million annualized spend beginning in 2020. These developments showed heightened restructuring risk and limited financial flexibility going forward, in our view. The negative outlook reflected our belief that Ultra's capital structure was unsustainable and that the company might attempt additional debt exchanges or repurchases over the next six months.

Table 45

Issuer Credit Rating--Ultra Petroleum Corp.

Date	To
25-Sep-2019	CCC-/Negative/--
21-Mar-2019	CCC+/Negative/--
02-Jan-2019	SD/NM/--
18-Oct-2018	CC/Negative/--
14-Sep-2018	CCC+/Negative/--
17-May-2018	B/Negative/--
16-Mar-2017	B+/Stable/--
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/--

API Heat Transfer Co.

- US$14.4 million revolver bank loan due May 3, 2019

- US$265 million term bank loan due May 3, 2019

On Jan. 15, 2019, S&P Global Ratings lowered its issuer credit rating on New York-based industrial heat transfer equipment manufacturer API Heat Transfer Co. to 'SD' from 'CCC-' following the company's completion of a restructuring whereby it converted its outstanding debt into equity

interest in the company and new debt. We view this transaction as distressed because the first-lien noteholders received less value than the original principal amount outstanding on the securities.

Table 46

Issuer Credit Rating --API Heat Transfer Co.

Date	To
15-Jan-2019	SD/NM/--
10-Aug-2018	CCC-/Negative/--
30-Nov-2016	CCC+/Negative/--
19-Oct-2015	B-/Stable/--
23-Apr-2013	B/Stable/--

Pacific Gas & Electric Co.

- US$3 billion 6.05% senior notes due March 1, 2034

- US$950 million 5.80% senior notes due March 1, 2037

- US$5 million 6.05% notes series 2004 due March 1, 2034

- US$400 million 6.35% notes due Feb. 15, 2038

- US$550 million 6.25% senior notes due March 1, 2039

- US$800 million 5.40% senior notes due Jan. 15, 2040

- US$800 million 3.50% senior notes due Oct. 1, 2020

- US$300 million 4.25% notes due May 15, 2021

- US$250 million 3.25% senior notes due Sept. 15, 2021

- US$250 million 4.50% senior notes due Dec. 12, 2041

- US$400 million 4.45% notes due April 15, 2042

- US$350 million 3.75% senior notes due Aug. 15, 2042

- US$400 million 2.45% senior notes due Aug. 15, 2022

- US$375 million 3.25% senior unsecured notes due June 15, 2023

- US$375 million 4.60% senior unsecured notes due June 15, 2043

- US$500 million 5.125% senior notes due Nov. 15, 2043

- US$300 million 3.85% senior notes due Nov. 15, 2023

- US$675 million 4.75% notes due Feb. 15, 2044

- US$450 million 3.75% notes due Feb. 15, 2024

- US$350 million 3.40% notes due Aug. 15, 2024

- US$500 million 4.30% notes due March 15, 2045

- US$400 million 3.50% notes due June 15, 2025

- US$100 million 4.30% notes due March 15, 2045

- US$450 million 4.25% senior notes due March 15, 2046

- US$200 million 3.50% senior notes due June 15, 2025

- US$600 million 2.95% senior notes due March 1, 2026

- US$400 million 4.00% senior notes due Dec. 1, 2046

- US$400 million 3.30% notes due March 15, 2027

- US$200 million 4.00% notes due Dec. 1, 2046

- US$1.15 billion 3.30% notes due Dec. 1, 2027

- US$850 million 3.95% notes due Dec. 1, 2047

- US$300 million 4.65% callable notes due Aug. 1, 2028

- US$500 million 4.25% callable notes due Aug. 1, 2023

- US$50.50 million 5.8% senior notes due March 1, 2037

- US$500 million senior unsecured notes due Aug. 1, 2023

- US$300 million senior unsecured notes due Aug. 1, 2028

- US$3 billion senior unsecured bank loan due April 27, 2022

- US$250 million unsecured bank loan due Feb. 22, 2019

On Jan. 16, 2019, S&P Global Ratings lowered its issuer credit rating on California-based regulated electric and gas utility Pacific Gas & Electric Co. to 'D' from 'CC'. The company missed the $21.6 million interest payment on its $800 million 5.4% senior notes maturing on Jan. 15, 2040. We did not expect the company to make this payment during the 30-day grace period, given its announcement that it expected to file for bankruptcy protection and commence a reorganization under Chapter 11 of the U.S. Bankruptcy Code on Jan. 29, 2019.

Reports said that the company and an ad hoc group of noteholders led by Elliott Management and PIMCO were engaged in negotiations to settle and reach a consensus on the company's proposed reorganization plan. The bankruptcy court overseeing the Chapter 11 proceedings of Pacific Gas & Electric Co. on Dec. 17 approved the company's $13.5 billion settlement with holders of individual wildfire claims in the case.

Table 47

Issuer Credit Rating--Pacific Gas & Electric Co.

Date	To
16-Jan-2019	D/--/--
14-Jan-2019	CC/Watch Neg/--
07-Jan-2019	B/Watch Neg/--
15-Nov-2018	BBB-/Watch Neg/--
05-Sep-2018	BBB/Negative/--
13-Jun-2018	BBB/Watch Neg/--
22-Feb-2018	BBB+/Watch Neg/--
22-Dec-2017	A-/Watch Neg/--

Table 47

Issuer Credit Rating--Pacific Gas & Electric Co. (cont.)

Date	To
12-May-2017	A-/Stable/--
15-Aug-2016	BBB+/Positive/--
29-Oct-2015	BBB/Positive/--
10-Apr-2015	BBB/Stable/--
28-Aug-2013	BBB/Negative/--
08-Dec-2011	BBB/Stable/--
16-Mar-2011	BBB+/Negative/--
15-Dec-2010	BBB+/Stable/--
10-Sep-2010	BBB+/Watch Neg/--
31-May-2007	BBB+/Stable/--
16-Feb-2005	BBB/Stable/--
16-Apr-2004	BBB-/Stable/--
19-Dec-2003	D/Watch Pos/--
22-Jan-2001	D/--/--
16-Jan-2001	CC/Watch Neg/--
04-Jan-2001	BBB-/Watch Neg/--
31-Jan-2000	A+/Watch Neg/--
28-May-1997	A+/Positive/--
23-Sep-1996	A/Positive/--
09-Dec-1994	A/Negative/--
15-Jul-1988	A/Watch Neg/--
15-Jan-1988	A+/Negative/--
02-Oct-1986	A+/Stable/--
-	A+/-/--
-	A/-/--
-	AA-/-/--
-	AA/-/--

Shopko Stores Inc.

On Jan. 16, 2018, Wisconsin-based Shopko Stores Inc. defaulted after it filed for bankruptcy under Chapter 11.

Earlier, on Dec. 30, 2005, S&P Global Ratings had withdrawn its ratings on the issuer.

Table 48

Issuer Credit Rating--Shopko Stores Inc.

Date	To
30-Dec-2005	NR/--/--
08-Apr-2005	BB-/Watch Neg/--
22-Aug-2002	BB-/Stable/--
24-May-2001	BB-/Negative/--
22-Mar-2001	BB/Negative/--
14-Dec-2000	BB+/Watch Neg/--
14-Nov-2000	BBB-/Watch Neg/--
06-Oct-2000	BBB-/Negative/--
26-Jun-1997	BBB-/Stable/--
25-Apr-1997	BBB/Watch Neg/--
02-Apr-1997	BBB/Negative/--
10-Sep-1996	BBB/Watch Neg/--
05-Aug-1994	BBB/Stable/--
10-Jun-1993	BBB+/Negative/--
27-Feb-1992	BBB+/Stable/--

Ditech Holding Corp.

- US$1.5 billion first-lien term bank loan due 2020

- US$250 million 9.00% payment-in-kind toggle notes bank loan due Dec. 31, 2024

- US$250 million 9.00% second-lien due Dec. 31, 2024

- US$1.16 billion first-lien guaranteed senior secured bank loan due June 30, 2022

On Jan. 18, 2019, S&P Global Ratings lowered its issuer credit rating on Pennsylvania-based Ditech Holding Corp. to 'SD' from 'CCC'. The downgrade followed Ditech's decision to forgo a $9 million interest payment due on the company's second-lien notes due 2024. The payment was originally due on Dec. 17, but it was subject to a 30-day grace period that ended on Jan. 16. The company also entered into a forbearance agreement with an ad hoc group of lenders representing more than 50% of the total credit exposure under the first-lien credit agreement.

On Feb. 12, 2019, we lowered our issuer credit rating on Ditech Holding Corp. to 'D' from 'SD' following the company's restructuring support agreement with certain lenders holding more than 75% of its term loan, as well as its voluntary filing for reorganization under Chapter 11 of the U.S. Bankruptcy Code.

On Oct. 2, 2019, we raised our issuer credit rating on Ditech Holding Corp. to 'CCC-' from 'D'. We subsequently withdrew our ratings on Ditech Holding at the company's request. The outlook was negative at the time of withdrawal.

Ditech Holding exited its Chapter 11 bankruptcy when it entered into an asset purchase agreement with New Residential Investment Corp. to acquire the forward business and Mortgage

Assets Management LLC to acquire stock and assets of the reverse business.

Table 49

Issuer Credit Rating--Ditech Holding Corp.

Date	To
02-Oct-2019	NR/--/--
02-Oct-2019	CCC-/Negative/--
12-Feb-2019	D/--/--
18-Jan-2019	SD/NM/--
21-Nov-2018	CCC/Negative/--
15-Feb-2018	CCC+/Stable/--
07-Dec-2017	D/--/--
18-Jul-2017	CCC-/Negative/--
17-Mar-2017	CCC/Negative/--
19-Jul-2016	B/Negative/--
13-Jun-2016	B+/Negative/--
14-Oct-2015	B+/Stable/--
11-Dec-2014	B+/Negative/--
24-May-2011	B+/Stable/--

PG&E Corp.

On Jan. 29, 2019, S&P Global Ratings lowered its issuer credit rating on California-based utility holding company PG&E Corp. to 'D' from 'CC'. PG&E Corp. and subsidiary Pacific Gas & Electric Co. voluntarily filed for Chapter 11 bankruptcy.

Earlier, on Jan. 14, 2019, we had lowered our issuer credit ratings on PG&E Corp. and Pacific Gas & Electric Co. to 'CC' from 'B', reflecting PG&E's announcement that it expected to file for bankruptcy protection and commence a reorganization under Chapter 11 of the U.S. Bankruptcy Code on Jan. 29, 2019.

Table 50

Issuer Credit Rating--PG&E Corp.

Date	To
29-Jan-2019	D/--/--
14-Jan-2019	CC/Watch Neg/--
07-Jan-2019	B/Watch Neg/--
15-Nov-2018	BBB-/Watch Neg/--
05-Sep-2018	BBB/Negative/--
13-Jun-2018	BBB/Watch Neg/--
22-Feb-2018	BBB+/Watch Neg/--
22-Dec-2017	A-/Watch Neg/--
12-May-2017	A-/Stable/--

Table 50

Issuer Credit Rating--PG&E Corp. (cont.)

Date	To
15-Aug-2016	BBB+/Positive/--
29-Oct-2015	BBB/Positive/--
10-Apr-2015	BBB/Stable/--
28-Aug-2013	BBB/Negative/--
08-Dec-2011	BBB/Stable/--
16-Mar-2011	BBB+/Negative/--
15-Dec-2010	BBB+/Stable/--
10-Sep-2010	BBB+/Watch Neg/--
10-Mar-2009	BBB+/Stable/--
15-Mar-2001	NR/--/--
16-Jan-2001	CC/Watch Neg/--
04-Jan-2001	BBB-/Watch Neg/--
31-Jan-2000	A/Watch Neg/--
28-May-1997	A/Stable/--
24-Jan-1997	A-/Positive/--

Eletson Holdings Inc.

- US$300 million 9.625% first-preferred ship mortgage notes due Jan. 15, 2022

- US$314.068 million 12.00% first-preferred ship mortgage notes due Jan. 15, 2022

On Jan. 30, 2019, S&P Global Ratings lowered its issuer credit rating on Liberia-registered product tanker and liquefied petroleum gas carrier owner and operator Eletson Holdings Inc. to 'SD' from 'CCC' after the company missed a coupon payment on its $300 million 9.625% first-preferred ship mortgage notes due 2022 on Jan. 15. In addition, on Jan. 25, 2019, Eletson entered into a forbearance agreement with over 90% of its noteholders on restructuring the notes. We believed the company would not make the interest payment in full within the stated grace period because of its strained liquidity position and discussion with noteholders to undertake debt structure amendments, which we would assess as constituting a distressed exchange.

Table 51

Issuer Credit Rating--Eletson Holdings Inc.

Date	To
30-Jan-2019	SD/NM/--
14-Aug-2018	CCC/Developing/--
22-Feb-2018	SD/NM/--
27-Oct-2017	CCC+/Negative/--
12-Apr-2017	CCC+/Watch Dev/--

Table 51

Issuer Credit Rating--Eletson Holdings Inc. (cont.)

Date	To
31-Oct-2016	B/Negative/--
30-Oct-2015	B/Positive/--
28-Oct-2014	B/Stable/--
11-Dec-2013	B/Positive/--

New Look Retail Group Ltd.

- GBP700 million 6.50% callable notes due July 1, 2022

- EUR415 million floating-rate callable notes due July 1, 2022

- GBP200 million 8.00% callable notes due July 1, 2023

On Jan. 31, 2019, S&P Global Ratings lowered its issuer credit rating on U.K.-based New Look Retail Group Ltd. to 'SD' from 'CC' after the company received the necessary approvals from debt investors to make certain amendments to the terms of several instruments in the group's capital structure, allowing it to raise £80 million of additional prior-ranking short-term funding. This represented the completion of the first stage in a broader debt restructuring that we viewed as a distressed exchange and therefore tantamount to a default.

The company had announced its intention to restructure its debt with a combination of a debt exchange, new debt issuance, and a debt-for-equity swap following poor performance over the 2018 Christmas period. On Jan. 17, 2019, we had lowered our long-term issuer credit rating on New Look and issue ratings on all of its rated debt to 'CC' and placed all the ratings on CreditWatch with negative implications.

On June 12, 2019, New Look completed a debt restructuring process that saw control of the company handed to its previous creditors, its overall debt burden cut significantly, and the injection of £150 million of new capital. Following the sale of substantially all of the group's operating assets to a newly formed intermediate holding company, New Look Bonds Ltd. (ultimately owned by the group's previous lenders), we withdrew our ratings on New Look Retail Group Ltd. and the debt we previously rated under the group's former capital structure.

We assigned our 'CCC+' rating to the newly formed New Look Bonds Ltd.

Table 52

Issuer Credit Rating--New Look Retail Group Ltd.

Date	To
12-Jun-2019	NR/--/--
31-Jan-2019	SD/NM/--
17-Jan-2019	CC/Watch Neg/--
08-Feb-2018	CCC/Negative/--
18-Aug-2017	CCC+/Stable/--

Table 52

Issuer Credit Rating--New Look Retail Group Ltd. (cont.)

Date	To
12-Jun-2017	B-/Negative/--
11-Apr-2014	B/Stable/--
07-Jun-2013	B-/Stable/--

Tsesnabank

- KZT10 billion floating-rate medium-term notes series 12 due June 4, 2023

- KZT3 billion 8.00% medium-term notes series 17 due April 10, 2019

- KZT5 billion 9.00% subordinated notes due June 4, 2028

- KZT6 billion 8.00% subordinated notes due July 31, 2019

- KZT4 billion 8.00% subordinated notes July 31, 2019

- KZT5 billion 8.00% subordinated notes due June 4, 2020

- KZT10 billion 8.00% subordinated notes due April 10, 2021

- KZT5 billion 8.00% subordinated notes due April 10, 2021

- KZT5 billion 8.00% subordinated notes due April 10, 2021

- KZT3.482 billion 7.50% senior unsecured notes due July 11, 2027

- KZT10 billion 7.10% senior unsecured notes due June 4, 2023

On Feb. 1, 2019, S&P Global Ratings lowered its long- and short-term issuer credit ratings on Kazakhstan-based Tsesnabank to 'SD' from 'B-'. On Jan. 29, 2019, Tsesnabank had amended the terms and conditions of its senior unsecured bond, extending the maturity and lowering the coupon rate. We viewed these changes as tantamount to a restructuring, since the new offer constituted less than the original promise to bondholders and did not provide additional compensation.

On Feb. 6, 2019, Kazakhstan-based securities firm First Heartland Securities purchased 99.8% of Tsesnabank's ordinary shares and recapitalized the bank for KZT70 billion. Government-backed Problem Loans Fund bought an additional KZT604 billion of loans from Tsesnabank at book value, therefore providing substantial liquidity support to the bank. We believed this would support the bank's capacity to sustain its financial commitments.

On Feb. 20, 2019, we raised our long- and short-term issuer credit ratings on Tsesnabank to 'B-' from 'SD'. The outlook was stable. The upgrade followed the ownership change, recapitalization by the new owner, a significant cleanup of Tsesnabank's operations, and the additional asset sale to Problem Loans Fund.

On Aug. 12, 2019, S&P Global Ratings revised the outlook on First Heartland Jusan Bank (formerly known as Tsesnabank) to positive from stable, reflecting the new management team, gradual progress in the bank's financial rehabilitation, and the possibility of achieving a more sustainable business position in the local market.

Table 53

Issuer Credit Rating--Tsesnabank

Date	To
12-Aug-2019	B-/Positive/--
20-Feb-2019	B-/Stable/--
01-Feb-2019	SD/NM/--
30-Nov-2018	B-/Watch Neg/--
17-Sep-2018	B/Negative/--
20-May-2016	B+/Negative/--
18-Jun-2014	B+/Stable/--
23-May-2013	B/Positive/--
09-Jul-2012	B/Stable/--
12-Dec-2011	B/Negative/--
29-Jun-2011	B/Stable/--
08-Dec-2010	B-/Stable/--
20-Feb-2009	B-/Negative/--
15-Aug-2005	B-/Stable/--

Charlotte Russe Inc.

- US$90 million first-lien term bank loan due Feb. 2, 2023

On Feb. 4, 2019, S&P Global Ratings lowered its long-term issuer credit rating on California-based specialty apparel retailer Charlotte Russe Inc. to 'D' from 'CCC-' after the company filed voluntary petitions for reorganization under Chapter 11 of the U.S. Bankruptcy Code. We withdrew our ratings on the company on March 11.

Earlier, on Jan. 14, 2019, we had lowered our long-term issuer credit rating on Charlotte Russe Inc. to 'CCC-' from 'CCC', reflecting our view of the increasing likelihood of a bankruptcy filing or debt restructuring occurring in the upcoming six months, given the company's continued weak operating performance with constrained liquidity. The company also hired Guggenheim Securities to explore strategic alternatives.

Table 54

Issuer Credit Rating--Charlotte Russe Inc.

Date	To
11-Mar-2019	NR/--/--
04-Feb-2019	D/--/--
14-Jan-2019	CCC-/Negative/--
26-Feb-2018	CCC/Negative/--
05-Feb-2018	SD/NM/--
15-Dec-2017	CC/Negative/--
21-Sep-2017	CCC-/Negative/--

Issuer Credit Rating--Charlotte Russe Inc. (cont.)

Date	To
06-Feb-2017	CCC+/Negative/--
25-Apr-2016	B-/Negative/--
01-Oct-2015	B/Stable/--
24-Feb-2015	B+/Stable/--
14-Jul-2014	B/Positive/--
25-Feb-2014	B/Stable/--
08-May-2013	B-/Stable/--

TRM Holdings Corp.

On Feb. 6, 2019, Ohio-based TRM Holdings Corp., the parent of gift retailer Things Remembered Inc., defaulted after filing for Chapter 11.

Earlier, on Oct. 2, 2014, S&P Global Ratings had withdrawn all of its ratings on the company, including the 'CCC+' issuer credit rating, reflecting the lack of receipt of timely information from the issuer.

Issuer Credit Rating--TRM Holdings Corp.

Date	To
02-Oct-2014	NR/--/--
04-Sep-2014	CCC+/Negative/--
26-Jun-2014	B-/Watch Neg/--
11-Jun-2012	B/Stable/--

Fuse Media Inc.

- US$242 million 10.375% senior notes due July 1, 2019

On Feb. 7, 2019, S&P Global Ratings lowered its issuer credit rating on California-based cable network company Fuse Media Inc. to 'D' from 'CC' because the company missed the Jan. 1, 2019, coupon payment on its $242 million senior secured notes due July 2019. The downgrade also reflected the forbearance agreement the company entered into with its bondholders.

We withdrew our ratings on the company on March 22, 2019.

Earlier, on Jan. 15, 2019, we had lowered our issuer credit rating on Fuse to 'CC' from 'CCC' after the company lost 20% of its subscribers when both Comcast and Verizon dropped its channels from their multichannel video programming distribution platforms. The downgrade reflected our expectation that Fuse would not be able to repay its $242 million senior notes due July 2019 and would either pursue a distressed exchange or face insolvency within the next six months.

On June 18, 2019, the bankruptcy court overseeing the Chapter 11 proceedings of Fuse Media confirmed the company's prepackaged reorganization plan and approved the adequacy of its disclosure statement.

Table 56

Issuer Credit Rating--Fuse Media Inc.

Date	To
22-Mar-2019	NR/--/--
07-Feb-2019	D/--/--
15-Jan-2019	CC/Negative/--
13-Apr-2018	CCC/Negative/--
18-Apr-2017	CCC+/Negative/--
13-Jun-2014	B-/Stable/--

Hornbeck Offshore Services Inc.

- US$300 million 1.50% convertible due Sept. 1, 2019

- US$375 million 5.875% senior notes due April 1, 2020

- US$450 million 5.00% senior unsecured notes due March 1, 2021

- US$111.9 million second-lien guaranteed secured bank loan due July 1, 2025

- US$300 million first-lien guaranteed senior secured bank loan due June 15, 2023

On Feb. 7, 2019, S&P Global Ratings lowered its issuer credit rating on Louisiana-based offshore vessel provider Hornbeck Offshore Services Inc. to 'SD' from 'CC' following the completion of a debt exchange whereby holders of a portion of the company's unsecured notes due 2020 exchanged the debt for a new second-lien term loan due 2025. Holders of $131.6 million of the notes will now receive $111.9 million of the new loan. We view the exchange as distressed because the value received was less than the promise of the original securities and because we believed there was a realistic possibility of a conventional default before the exchange.

Earlier, on Jan. 9, 2019, we had lowered our issuer credit rating on the company to 'CC' from 'CCC-' following the company's announcement of a debt exchange offer of new second-lien term loans for its 5.875% unsecured notes due 2020.

Table 57

Issuer Credit Rating--Hornbeck Offshore Services Inc.

Date	To
07-Feb-2019	SD/NM/--
09-Jan-2019	CC/Negative/--
18-Aug-2017	CCC-/Negative/--
09-Aug-2017	SD/NM/--
04-Nov-2016	CCC-/Negative/--
06-Jul-2016	CCC+/Negative/--

Table 57

Issuer Credit Rating--Hornbeck Offshore Services Inc. (cont.)

Date	To
02-Jul-2015	B+/Stable/--
12-Sep-2014	BB-/Stable/--
25-Sep-2013	B+/Positive/--
10-Nov-2011	B+/Stable/--
08-Jun-2010	B+/Negative/--
26-Aug-2004	BB-/Stable/--
11-Mar-2004	B+/Watch Pos/--
14-Oct-2002	B+/Stable/--
23-Jul-2002	B+/Watch Pos/--
17-Apr-2002	B+/Negative/--
29-Jun-2001	B+/Stable/--

Trident Holding Co. LLC

On Feb. 10, 2019, Maryland-based provider of bedside diagnostic services to nursing homes and other postacute facilities Trident Holding Co. LLC defaulted after filing for Chapter 11.

Earlier, on June 28, 2018, S&P Global Ratings had assigned a 'CCC+' issuer credit rating to the company, reflecting its new capital structure following its refinancing transaction that closed on April 30, 2018.

Subsequent to these actions, we withdrew our ratings on the company due to a lack of timely information of satisfactory quality.

Table 58

Issuer Credit Rating--Trident Holding Co. LLC

Date	To
28-Jun-2018	NR/--/--
28-Jun-2018	CCC+/Negative/--
22-Jun-2018	SD/NM/--
22-Nov-2017	CCC-/Watch Neg/--
21-Aug-2017	CCC+/Watch Neg/--
14-Apr-2016	B-/Stable/--

Payless Inc.

- US$200 million first-lien A-2 term bank loan due Aug. 10, 2022

- US$80 million first-lien A-1 term bank loan due Feb. 10, 2022

On Feb. 19, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Kansas-based discount footwear retailer Payless Inc. to 'D' from 'CCC-' following the company's filing of voluntary petitions for reorganization under Chapter 11 of the U.S. Bankruptcy Code. This marked the company's second bankruptcy filing in two years, with the previous filing in April 2017 and subsequent emergence in August 2017. In the quarters leading up to the second bankruptcy, the company's operating performance continued to weaken. Payless also saw significant cash burn as it struggled to navigate a challenging retail environment with its sizable money-losing retail footprint and highly leveraged capital structure.

On March 21, 2019, we withdrew our ratings on the company.

On Jan. 16, 2020, Payless ShoeSource emerged from Chapter 11. The bankruptcy court confirmed the company's reorganization plan on Oct. 24, 2019.

Table 59

Issuer Credit Rating--Payless Inc.

Date	To
21-Mar-2019	NR/--/--
19-Feb-2019	D/--/--
16-Jan-2019	CCC-/Negative/--
09-Feb-2018	CCC/Negative/--
22-Aug-2017	B-/Negative/--
20-Jun-2017	NR/--/--
05-Apr-2017	D/--/--
01-Feb-2017	CCC/Negative/--
02-Dec-2016	B-/Negative/--
24-Aug-2016	B/Negative/--
13-Feb-2015	B/Stable/--
19-Feb-2014	B/Negative/--
07-Sep-2012	B/Stable/--
03-May-2012	B/Watch Neg/--
20-Dec-2011	B/Stable/--
14-Jun-2011	B+/Stable/--
03-Jun-2010	B+/Positive/--
15-Sep-2008	B+/Stable/--
08-May-2008	B+/Negative/--
27-Jul-2007	B+/Stable/--
23-May-2007	BB-/Watch Neg/--
22-Nov-2005	BB-/Stable/--
02-Sep-2004	BB-/Negative/--
02-Mar-2004	BB/Watch Neg/--
10-Jul-2003	BB/Stable/--
17-Jun-2003	BBB-/Watch Neg/--
30-May-2002	BBB-/Negative/--

Table 59

Issuer Credit Rating--Payless Inc. (cont.)

Date	To
24-Mar-2000	BBB-/Stable/--

One Call Corp.

- US$1.3 billion first-lien term loan B bank loan due Nov. 27, 2020

- US$228.223 million 10.00% second-lien notes due Oct. 1, 2024

- US$30 million 7.50% first-lien notes due July 1, 2024

- US$56.64 million revolver bank loan due Aug. 28, 2020

- US$56.64 million revolver bank loan due Aug. 28, 2022

- US$610 million 8.875% notes due Dec. 15, 2021

- US$998 million first-lien term loan B bank loan due Nov. 27, 2022

- US$339.81 million 7.50% first-lien payment-in-kind notes due July 1, 2024

On Feb. 21, 2019, S&P Global Ratings lowered its long-term issuer credit rating on New Jersey-based U.S. workers' compensation medical cost-containment provider One Call Corp. to 'SD' from 'CC'. The company completed a debt exchange plan on its first- and second-lien notes that we viewed as a distressed exchange.

Earlier, on Feb. 8, 2019, we had lowered our long-term issuer credit rating on One Call Corp. to 'CC' from 'CCC+' and placed the rating on CreditWatch with negative implications following the company's announcement on Feb. 6, 2019, of a proposed exchange offering for its $404 million second-lien notes due 2024.

On March 1, 2019, we raised our long-term issuer credit rating on One Call Corp. to 'CCC' from 'SD'. The outlook was negative. One Call completed the debt exchanges on its first-lien term loan, first-lien notes, and second-lien notes, and the outlook reflected our view of the potential for another distressed exchange or breach on the revolver financial covenant over the next 12 months.

On Oct. 7, 2019, we lowered our long-term issuer credit rating on One Call to 'CC' from 'CCC' and placed the rating on CreditWatch with negative implications. The downgrade was based on One Call's decision not to make its required interest payment on Oct. 1, 2019, for its second-lien notes due 2024. The company was working with its lenders to resolve the missed payment during the 30-day grace period. We believed an eventual payment, reorganization, distressed exchange, or default were all potential outcomes.

On Oct. 31, 2019, we lowered our long-term issuer credit rating on One Call Corp. to 'SD' from 'CC' following the company's announcement that it completed a distressed debt exchange for preferred and common equity. Certain lenders, led by KKR & Co. Inc. and GSO Capital Partners, agreed to exchange large portions of their first- and second-lien debt for preferred and common equity, giving them majority control of the company.

On Nov. 4, 2019, we raised our long-term issuer credit rating on One Call Corp. to 'B-' from 'SD' following completion of a recapitalization that would significantly lessen its debt load and

enhance its financial flexibility.

Table 60

Issuer Credit Rating--One Call Corp.

Date	To
04-Nov-2019	B-/Stable/--
31-Oct-2019	SD/NM/--
07-Oct-2019	CC/Watch Neg/--
01-Mar-2019	CCC/Negative/--
21-Feb-2019	SD/NM/--
08-Feb-2019	CC/Watch Neg/--
17-Apr-2018	CCC+/Stable/--
30-Jun-2017	B-/Negative/--
05-Oct-2015	B-/Stable/--
08-Oct-2014	B/Stable/--
05-Dec-2013	B/Negative/--

Novasep Holding S.A.S.

- EUR181.718 million 8.00% payment-in-kind notes due May 31, 2022

On Feb. 21, 2019, S&P Global Ratings lowered its long-term issuer credit rating on France-based pharmaceutical contract manufacturer Novasep Holding S.A.S. to 'SD' from 'CC' following the completion of the company's maturity extension on its €181.7 million unsecured notes to May 31, 2022, from May 31, 2019. We considered the three-year maturity extension to be a significant amendment to the original promise of repayment on May 31, 2019, and viewed the offer as distressed.

On March 1, 2019, we raised our long-term issuer credit rating on Novasep to 'CCC+' from 'SD'. The company completed its capital restructuring, resulting in a three-year maturity extension of its €181.7 million unsecured notes. We believed that following the restructuring, Novasep's financial risk improved substantially.

On Jan. 8, 2020, we withdrew our ratings on Novasep Holding S.A.S. at the issuer's request.

Table 61

Issuer Credit Rating--Novasep Holding S.A.S.

Date	To
08-Jan-2020	NR/--/--
01-Mar-2019	CCC+/Stable/--
21-Feb-2019	SD/NM/--
08-Feb-2019	CC/Watch Neg/--
28-Sep-2018	CCC/Stable/--
20-Dec-2016	B-/Stable/--

Table 61

Issuer Credit Rating--Novasep Holding S.A.S. (cont.)

Date	To
30-Sep-2016	B-/Negative/--
29-Sep-2015	B-/Stable/--
05-Sep-2014	B-/Positive/--
21-Aug-2012	B-/Stable/--
22-Jun-2011	SD/NM/--
05-Apr-2011	CCC+/Watch Dev/--
10-Jan-2011	B/Negative/--
17-Sep-2010	B/Watch Neg/--
07-Dec-2009	B/Positive/--

Windstream Holdings Inc.

- US$415 million 10.50% second-lien notes due June 30, 2024

- US$554 million 6.375% senior notes due Aug. 1, 2023

- US$600 million 8.625% senior first-lien notes due Oct. 31, 2025

- US$802 million 9.00% second-lien notes due June 30, 2025

- US$832.6 million 8.75% senior notes due Dec. 15, 2024

- US$1.25 billion revolving bank loan due April 24, 2020

- US$1.347 billion term B-6 bank loan due March 29, 2021

- US$500 million 7.50% senior notes due June 1, 2022

- US$580 million term B-7 bank loan due Feb. 17, 2024

- US$600 million 7.50% senior notes due April 1, 2023

- US$700 million 6.375% senior notes due Aug. 1, 2023

- US$700 million 7.75% senior notes due Oct. 15, 2020

- US$950 million 7.75% senior notes due Oct. 1, 2021

- US$100 million 6.75% senior notes due April 1, 2028

On Feb. 26, 2019, S&P Global Ratings lowered its issuer credit ratings on Arkansas-based telecommunications provider Windstream Holdings Inc. and its subsidiaries to 'D' from 'CCC-' following a voluntary filing for Chapter 11 bankruptcy protection. This followed our earlier action on Feb. 21, 2019, wherein we lowered our ratings on the company to 'CCC-' from 'CCC+' following the court ruling that subsidiary Windstream Services LLC breached its sale and lease-back covenant under the indenture governing its 6.375% senior notes due 2023 when it spun off a portion of its fiber and copper plant into a REIT structure called Uniti in 2015.

On April 1, 2019, we withdrew our ratings on the company.

Table 62

Issuer Credit Rating--Windstream Holdings Inc.

Date	To
01-Apr-2019	NR/--/--
26-Feb-2019	D/--/--
21-Feb-2019	CCC-/Negative/--
09-Aug-2018	CCC+/Developing/--
03-Aug-2018	SD/NM/--
19-Jun-2018	CC/Negative/--
27-Apr-2018	B-/Negative/--
19-Sep-2017	B/Negative/--
06-Nov-2015	B+/Stable/--
06-Aug-2015	BB-/Watch Neg/--
12-Mar-2015	BB-/Negative/--
09-Sep-2013	BB-/Stable/--

Affinion Group Holdings Inc.

- US$1.34 billion term bank loan due May 10, 2022

- US$110 million revolver bank loan due May 10, 2022

- US$532.6 million payment-in-kind notes due Nov. 10, 2022

On March 8, 2019, S&P Global Ratings lowered its issuer credit rating on Connecticut-based loyalty and customer engagement solutions company Affinion Group Holdings Inc. to 'SD' from 'CCC-'. The company elected not to pay the Feb. 19 $22.2 million interest payment on its first-lien term loan due May 10, 2022, as it entered into a forbearance agreement with its first-lien lenders. We viewed the $22 million missed interest payment as a default because we believed the company would not make the payment within 30 days of the payment due date. We believed Affinion's decision to forgo its interest payment was strategic, and not due to insufficient liquidity given cash on hand, because it proposed a new recapitalization plan and negotiated with lenders to restructure the balance sheet.

On April 17, 2019, we raised our issuer credit rating on Affinion to 'CCC+' from 'SD' after the company completed the distressed debt exchange of its unsecured notes due 2022. We withdrew our issuer credit rating on the company at its request.

Earlier, on Dec. 21, 2018, we had lowered our issuer credit rating on Affinion to 'CCC-' from 'CCC+', reflecting heightened risk as the company was expected to pursue a restructuring agreement with its lenders or default on a payment, given the loss of one of its key customers and our forecast for negative cash flow and weakened liquidity.

Table 63

Issuer Credit Rating--Affinion Group Holdings Inc.

Date	To
17-Apr-2019	NR/--/--
17-Apr-2019	CCC+/Negative/--
08-Mar-2019	SD/NM/--
21-Dec-2018	CCC-/Negative/--
12-May-2017	CCC+/Negative/--
11-May-2017	SD/NM/--
03-Apr-2017	CC/Negative/--
22-Feb-2017	CCC+/Negative/--
13-Nov-2015	CCC+/Stable/--
10-Nov-2015	SD/NM/--
01-Oct-2015	CC/Negative/--
12-Jun-2014	CCC+/Negative/--
10-Jun-2014	SD/NM/--
30-Apr-2014	CC/Negative/--
26-Dec-2013	CCC+/Negative/--
17-Dec-2013	SD/NM/--
08-Nov-2013	CC/Negative/--
25-Jun-2013	CCC+/Negative/--
07-Dec-2012	B-/Stable/--
20-Aug-2012	B/Watch Neg/--
27-Mar-2012	B/Negative/--
08-Dec-2011	B+/Negative/--
08-Feb-2011	B+/Stable/--
28-Sep-2010	B+/Negative/--

CTI Foods Holding Co. LLC

- US$140 million second-lien term bank loan due June 28, 2021

- US$370 million first-lien term bank loan due June 28, 2020

On March 11, 2019, S&P Global Ratings lowered its issuer credit rating on Wilder, Idaho-based CTI Foods Holding Co. LLC to 'D' from 'CCC-' following the company's voluntary petitions for reorganization under Chapter 11 of the U.S. Bankruptcy Code.

The company received commitments for $155 million in debtor-in-possession (DIP) financing and entered into a restructuring support agreement with holders of 78.7% of outstanding principal amount of first-lien term loan claims, holders of roughly 52.31% of principal amount of second-lien term loan claims, and the company's prepetition equity sponsors, Goldman Sachs Merchant Banking and Thomas H. Lee Partners, which hold about 94.31% of the equity interests

in Chef Holdings, the holding company that controls CTI. The proceeds of the DIP facility would be used to pay down debt and fund ongoing operations during the Chapter 11 case, subject to court approval.

Earlier, on Nov. 12, 2018, we had lowered our issuer credit rating on CTI to 'CCC-' from 'CCC+', reflecting our expectation for a default, most likely in the form of a distressed exchange, over the next six months, considering that leverage was set to remain above 20x as the company continued to face meat-recall issues and write-downs related to food safety.

Table 64

Issuer Credit Rating--CTI Foods Holding Co. LLC

Date	To
07-May-2019	NR/--/--
11-Mar-2019	D/--/--
12-Nov-2018	CCC-/Negative/--
29-Mar-2018	CCC+/Negative/--
15-May-2017	B-/Negative/--
07-Mar-2011	B/Stable/--
25-Mar-2009	B/Negative/--
24-Mar-2008	B/Stable/--
24-Oct-2007	B+/Watch Neg/--
22-May-2007	B+/Negative/--
09-May-2005	B+/Stable/--

Cloud Peak Energy Resources LLC

- US$200 million 6.375% notes due 2024

- US$290 million 12.00% second-lien notes due 2021

On March 15, 2019, S&P Global Ratings lowered its issuer credit rating on Wyoming-based thermal coal producer Cloud Peak Energy Resources LLC to 'SD' from 'CCC'. The company elected not to make an approximate $1.8 million interest payment on its unsecured notes due 2024 as it continued to evaluate its restructuring alternatives. We did not expect the company would make this payment during the 30-day grace period because of uncertainty related to its ability to cover its fixed charges and substantial doubt about its ability to continue as a going concern.

Earlier, on Jan. 31, 2019, we had lowered our issuer credit rating on Cloud Peak to 'CCC' from 'CCC+' following the company's Jan. 29 announcement that it retained restructuring advisers to review its capital structure and restructuring alternatives.

Table 65

Issuer Credit Rating--Cloud Peak Energy Resources LLC

Date	To
11-Jul-2019	NR/--/--
02-May-2019	D/--/--

Table 65

Issuer Credit Rating--Cloud Peak Energy Resources LLC (cont.)

Date	To
15-Mar-2019	SD/NM/--
31-Jan-2019	CCC/Negative/--
08-Nov-2018	CCC+/Negative/--
17-Mar-2017	B-/Stable/--
17-Oct-2016	B-/Negative/--
23-Sep-2016	SD/NM/--
02-Mar-2016	B+/Stable/--
10-Nov-2009	BB-/Stable/--

Imperial Metals Corp.

- US$325 million 7.00% notes due Sept. 15, 2019

- CAD50 million second-lien guaranteed secured bank loan due Sept. 9, 2019

On March 15, 2019, S&P Global Ratings lowered its issuer credit rating on Vancouver-based Imperial Metals Corp. to 'SD' from 'CCC-' following the company's announcement that it extended the maturity of its US$325 million senior unsecured notes to Sept. 15, 2019. As per our criteria, the extension of the maturity on the notes constituted investors receiving less value than originally promised. In addition, the extension, in our view, was necessary to avoid a legal default on the notes, rather than purely for opportunistic reasons necessary to facilitate the full repayment of Imperial Metals' debt.

Table 66

Issuer Credit Rating--Imperial Metals Corp.

Date	To
26-Apr-2019	NR/--/--
15-Mar-2019	SD/NM/--
07-Jul-2017	CCC-/Negative/--
03-Mar-2017	CCC/Positive/--
27-Jan-2016	CCC/Negative/--
07-Aug-2015	CCC+/Stable/--
20-May-2015	CCC/Watch Dev/--
08-Aug-2014	CCC+/Negative/--
04-Mar-2014	B-/Positive/--

PHI Inc.

- US$500 million 5.25% senior notes due March 15, 2019

On March 15, 2018, S&P Global Ratings lowered its issuer credit rating on Louisiana-based helicopter service provider PHI Inc. to 'D' from 'CCC-' following the company's filing for Chapter 11 bankruptcy. The downgrade reflected PHI's failure to retire or refinance its $500 million 5.25% unsecured notes before the March 15, 2019, maturity date. The company continued to negotiate with unsecured noteholders regarding its outstanding debt obligations and was in discussions to address above-market leases with certain lessors. Meanwhile, PHI's business operations would continue to be funded by cash on hand, cash flow from operations, and a new $70 million term loan from Blue Torch Capital. The Chapter 11 cases would only include PHI's principal U.S. entities, and the company expected to emerge from bankruptcy in summer 2019.

On March 22, 2019, we withdrew our ratings on the company.

Earlier, on Nov. 6, 2018, we had lowered our issuer credit rating on PHI Inc. to 'CCC-' from 'B' following PHI's announcement of a new term loan facility, which addressed the approaching expiration of its asset-based lending facility and eliminated financial covenants.

Table 67

Issuer Credit Rating--PHI Inc.

Date	To
22-Mar-2019	NR/--/--
15-Mar-2019	D/--/--
06-Nov-2018	CCC-/Negative/--
14-Mar-2017	B/Negative/--
05-Mar-2014	BB-/Stable/--
27-Apr-2012	B+/Stable/--
16-Sep-2010	B+/Negative/--
08-Jun-2010	B+/Watch Neg/--
21-Mar-2008	B+/Stable/--
16-Jul-2007	BB-/Negative/--
12-Apr-2002	BB-/Stable/--

Nyrstar N.V.

- EUR350 million 8.50% notes due Sept. 15, 2019

- EUR500 million 6.875% notes due March 15, 2024

- EUR115 million 5.00% notes due July 11, 2022

- EUR50 million unsecured bank loan due July 31, 2019

On March 20, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Belgian zinc producer company Nyrstar N.V. to 'SD' from 'CCC+' following the company's announcement that it deferred payment of EUR31.6 million coupons on its 2019 and 2024 bonds.

Table 68

Issuer Credit Rating--Nyrstar N.V.

Date	To
27-Sep-2019	NR/--/--
20-Mar-2019	SD/NM/--
26-Sep-2018	CCC+/Negative/--
01-Sep-2017	B-/Negative/--
19-May-2017	B-/Stable/--
03-Mar-2016	B-/Positive/--
16-Nov-2015	B-/Watch Pos/--
07-Oct-2015	B-/Negative/--
28-Nov-2014	B-/Stable/--

Murray Energy Corp.

- US$1.3 billion 11.25% senior secured notes due April 15, 2021

- US$1.585 billion superpriority first-lien term B-2 bank loan due Oct. 17, 2022

- US$1.7 billion B-2 bank loan due 2020

- US$159 million superpriority first-lien term B-3 bank loan due Oct. 17, 2022

- US$175 million term B-3 bank loan due April 17, 2020

- US$498 million 12.00% 1.5-lien notes due April 30, 2024

- US$170 million revolver bank loan due March 26, 2021

- US$425 million 11.50% second-lien notes due April 1, 2023

- US$825 million first-lien term bank loan due March 28, 2022

- US$400 million 9.50% second-lien notes due Dec. 5, 2020

- US$90 million first-lien guaranteed senior secured bank loan due Feb. 12, 2021

On Aug. 28, 2019, S&P Global Ratings lowered it issuer credit rating on Ohio-based coal producer Murray Energy Corp. to 'CCC' from 'CCC+', reflecting the view that the company was likely to consider a distressed exchange offer within the next 12 months due to the deep discount of its secured debt and the possibility that its sources of liquidity could fall short of uses within the next year, given weakening coal end markets.

On Oct. 4, 2019, we lowered our issuer credit rating on Murray to 'SD' from 'CCC' after Murray announced that it elected not to make the amortization and interest payments on its superpriority term loans B-2 and B-3 due on Sept. 30, 2019. In our view, the forbearance implied the investors would receive less value than the promise of the original securities.

On Oct. 8, 2019, we lowered our issuer credit rating on Murray to 'D' from 'SD'. The company did not make the amortization and interest payments on its superpriority term loans B-2 and B-3 within the five-day grace period, which expired on Oct. 7, 2019.

Earlier, on March 6, 2019, we had lowered our issuer credit rating on Murray to 'CCC+' from 'B-',

reflecting our view that the company was at heightened risk of a distressed exchange or other restructuring leading up to 2021 maturities, considering that the company's 1.5-lien and second-lien debt (totaling $860 million outstanding) was trading at about a 50% discount to par. The company had $440 million in debt due in 2021.

On March 21, 2019, we had lowered our issuer credit rating on Murray to 'SD' from 'CCC+'. The company had purchased approximately $48 million of its debt at an average discount to par of 40% since third-quarter 2018. The downgrade reflected our view that deeply discounted open-market debt repurchases by distressed issuers are tantamount to default.

On March 26, 2019, we raised our issuer credit rating on Murray to 'CCC+' from 'SD', reflecting our expectation that the company would continue to restructure its debt by repurchasing its second- and 1.5-lien notes at a deep discount to par in the open market.

Table 69

Issuer Credit Rating--Murray Energy Corp.

Date	To
08-Oct-2019	D/--/--
04-Oct-2019	SD/NM/--
28-Aug-2019	CCC/Negative/--
26-Mar-2019	CCC+/Negative/--
21-Mar-2019	SD/NM/--
06-Mar-2019	CCC+/Negative/--
02-Jul-2018	B-/Stable/--
18-Jun-2018	CCC+/Watch Pos/--
15-Jun-2018	SD/NM/--
06-Jun-2018	CC/Watch Neg/--
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/--

Evergreen AcqCo1 L.P. d/b/a Savers

- US$60 million revolver bank loan due April 9, 2019

- US$715 million term C bank loan due July 9, 2019

On March 28, 2019, S&P Global Ratings lowered its issuer credit rating on Washington-based for-profit thrift retailer Evergreen AcqCo1 L.P. (d/b/a Savers) to 'SD' from 'CCC' following the company's completion of a broad out-of-court restructuring. The company exchanged its senior subordinated notes due July 2022 (unrated) for common equity. We viewed this as a distressed

exchange because the noteholders received less than par and because we believed there was a high probability of a conventional default if Savers had not completed the transaction.

On March 29, 2019, we withdrew our ratings on the company.

Table 70

Issuer Credit Rating--Evergreen AcqCo1 LP d/b/a Savers

Date	To
29-Mar-2019	NR/--/--
28-Mar-2019	SD/NM/--
15-Nov-2017	CCC/Negative/--
10-Feb-2017	CCC+/Negative/--
08-Dec-2014	B-/Negative/--
26-Aug-2014	B/Negative/--
04-Jun-2013	B/Stable/--

Hexion Inc.

- US$574 million 9.00% senior secured second-priority notes due Nov. 15, 2020

- US$200 million 9.25% debt due March 15, 2021

- US$225 million 13.75% notes due Feb. 1, 2022

- US$250 million 7.875% debt due Feb. 15, 2023

- US$315 million 10.00% senior notes due April 15, 2020

- US$560 million 10.375% first-priority notes due Feb. 1, 2022

- US$1.55 billion 6.625% first-priority senior notes due April 15, 2020

On April 2, 2019, S&P Global Ratings lowered its issuer credit rating on Columbus, Ohio-based thermoset resin manufacturer and marketer Hexion Inc. to 'D' from 'CCC' following its filing for reorganization under Chapter 11 of the U.S. Bankruptcy Code. The bankruptcy would include substantially all of the company's U.S. subsidiaries and one nonoperating entity based in Nova Scotia, Canada.

On June 10, 2019, we raised our issuer credit rating on the company to 'B' from 'D', anticipating emergence from bankruptcy with a revised capital structure on or around July 1, 2019.

Table 71

Issuer Credit Rating--Hexion Inc.

Date	To
10-Jun-19	B/Stable/--
1-Apr-19	D/--/--
17-Jan-19	CCC/Negative/--
14-Nov-18	CCC+/Negative/--
21-Feb-17	CCC+/Stable/--

Table 71

Issuer Credit Rating--Hexion Inc. (cont.)

Date	To
12-Feb-16	CCC+/Negative/--
14-Sep-15	CCC+/Stable/--
1-Oct-14	CCC+/Negative/--
3-Feb-10	B-/Stable/--
14-Jan-10	CCC+/Watch Pos/--
29-Jun-09	CCC+/Negative/--
21-Apr-09	SD/NM/--
28-Jan-09	CCC+/Watch Neg/--
4-Nov-08	B-/Watch Neg/--
5-Jul-07	B/Watch Neg/--
20-Oct-06	B/Stable/--
2-May-06	B+/Stable/--
6-May-05	B+/Negative/--
26-Apr-05	B+/Watch Neg/--
8-Dec-04	B+/Stable/--
7-Oct-04	B+/Watch Neg/--
13-Aug-04	B+/Stable/--
6-Jul-04	BB/Watch Neg/--
23-Sep-02	BB/Negative/--
3-Sep-02	BB+/Watch Neg/--
1-Apr-96	BB+/Negative/--
7-Mar-95	BBB-/Negative/--
12-Aug-94	BBB/NM/--
17-Jan-94	BBB/Negative/--
27-Oct-93	BBB+/Watch Neg/--
11-Feb-93	A-/Stable/--
7-Apr-92	A/Watch Neg/--
18-Sep-91	A+/Stable/--
2-Feb-89	A+/Positive/--
12-Jan-83	A+/Stable/--
30-May-79	A/Stable/--
15-Mar-74	A/-/--

Southcross Energy Partners L.P.

On April 1, 2019, Texas-based provider of natural gas gathering, processing, treating,

compression, and transportation services Southcross Energy Partners L.P. defaulted after filing for Chapter 11.

Earlier, on Dec. 19, 2018, S&P Global Ratings had lowered its rating on the company to 'CCC-' from 'CCC' as the company continued to face significant challenges to its business and limited near-term liquidity and financial flexibility through first-quarter 2019.

Later, on Jan. 14, 2019, we withdrew our ratings on the company.

Table 72

Issuer Credit Rating--Southcross Energy Partners L.P.

Date	To
14-Jan-19	NR/--/--
19-Dec-18	CCC-/Negative/--
26-Sep-18	CCC/Negative/--
1-Aug-18	CCC+/Watch Neg/--
1-Nov-17	CCC+/Watch Pos/--
24-Feb-17	CCC+/Stable/--
1-Apr-16	CCC+/Negative/--
11-Jan-16	B-/Negative/--
15-Oct-15	B-/Stable/--
23-Feb-15	B/Negative/--
10-Jul-14	B/Stable/--

Monitronics International Inc.

- US$1.1 billion term B-2 bank loan due Sept. 30, 2022

- US$585 million 9.125% senior notes due April 1, 2020

- US$295 million first-lien guaranteed senior secured bank loan due Sept. 30, 2021

On April 2, 2019, S&P Global Ratings lowered its issuer credit rating on Texas-based residential alarm monitoring service provider Monitronics International Inc. to 'SD' from 'CC' after the company elected not to make an approximate $26.7 million interest payment on its $585 million 9.125% unsecured notes due 2020 in order to evaluate its restructuring alternatives.

On July 1, 2019, we lowered our issuer credit rating on Monitronics to 'D' from 'SD'. The issuer filed for voluntary bankruptcy protection under Chapter 11 of the U.S. Bankruptcy Code. Later, on Aug. 29, 2019, we raised our issuer credit rating on Monitronics to 'B-' from 'D. We expected the company to emerge from bankruptcy at about the end of August, after eliminating about $885 million of debt.

Table 73

Issuer Credit Rating--Monitronics International Inc.

Date	To
29-Aug-19	B-/Negative/--

Table 73

Issuer Credit Rating--Monitronics International Inc. (cont.)

Date	To
1-Jul-19	D/--/--
2-Apr-19	SD/NM/--
4-Sep-18	CC/Negative/--
3-Aug-18	CCC/Negative/--
12-Feb-18	B-/Negative/--
8-Sep-16	B-/Stable/--
13-Aug-15	B/Negative/--
11-Apr-12	B/Stable/--
14-Mar-12	NR/--/--

Sungard Availability Services Capital Inc.

- US$425 million 8.75% senior secured notes due April 1, 2022

- US$425 million term B bank loan due Oct. 1, 2022

- US$46 million revolver bank loan due Sept. 30, 2020

- US$470.808 million term B bank loan due Sept. 30, 2021

On April 2, 2019, S&P Global Ratings lowered its issuer credit rating on Pennsylvania-based data protection and disaster recovery services provider Sungard Availability Services Capital Inc. to 'D' from 'CCC+' following the company's restructuring support agreement with certain lenders holding more than 75% of its term loan and 85% of its senior notes. The restructuring was expected to be implemented through a prepackaged Chapter 11 bankruptcy filing.

On May 7, 2019, we withdrew our issuer credit rating on the company.

Table 74

Issuer Credit Rating--Sungard Availability Services Capital Inc.

Date	To
7-May-19	NR/--/--
2-Apr-19	D/--/--
31-Aug-18	CCC+/Stable/--
22-Nov-17	CCC+/Negative/--
21-Aug-17	B-/Negative/--
7-Mar-16	B-/Stable/--
19-Dec-14	B/Negative/--
17-Mar-14	B+/Stable/--

Bellatrix Exploration Ltd.

- US$250 million 8.50% senior secured notes due May 15, 2020

- CAD$50 million 6.5% subordinated notes due Sept. 30, 2021

- CAD$70 million first-lien senior secured bank loan due May 30, 2019

On April 3, 2019, S&P Global Ratings lowered its issuer credit rating on Alberta, Canada-based oil and gas acquisition, exploration, development, and production company Bellatrix Exploration Ltd. to 'D' from 'CCC' after the company elected to skip an interest payment due March 31, 2019, on its convertible debentures, as part of a proposed recapitalization plan announced on March 29. Later, on May 30, 2019, we withdrew our ratings on the company.

Earlier, on Jan. 14, 2019, we had raised our issuer credit rating on the company to 'CCC' from 'SD' to reflect the risk of a conventional default, based on the risk of losing access to a revolving credit facility.

Table 75

Issuer Credit Rating--Bellatrix Exploration Ltd.

Date	To
30-May-19	NR/--/--
3-Apr-19	D/--/--
14-Jan-19	CCC/Negative/--
13-Sep-18	SD/NM/--
27-Jul-18	CC/Negative/--
4-May-18	CCC+/Negative/--
16-Oct-15	B/Stable/--
8-May-15	B+/Stable/--

Maxcom Telecomunicaciones S.A.B. de C.V.

- US$180.354 million step-up senior notes due Dec. 31, 2020

On Aug. 21, 2019, S&P Global Ratings lowered its issuer credit rating on Mexico-based telecommunication services provider Maxcom Telecomunicaciones S.A.B. de C.V. to 'D from 'CC' on account of the company's missed interest payment on June 19, 2019, on its step-up senior notes due 2020. There was no intention to honor the coupon payment within the grace period because Maxcom announced potential restructuring or filing for bankruptcy under U.S. Chapter 11.

Earlier, on April 3, 2019, we had lowered our issuer credit rating on Maxcom to 'SD' from 'CCC+' following the company's announcement on April 1 that it executed a debt repurchase for an additional $9 million of its senior secured step-up notes due 2020. Following the completion of the debt repurchase, we raised the issuer credit rating to 'CCC' and subsequently lowered it to 'CC' in June.

Later, on Dec. 10, 2019, we raised our issuer credit rating on Maxcom to 'CCC+' from 'D' after it completed its debt restructuring under the protection of U.S. Chapter 11 bankruptcy law (as

announced on Nov. 28, 2019). At this point, the company exchanged in full its $103.4 million step-up senior notes due 2020 with a discount of approximately 15.6%, reducing total debt obligations by about $16.2 million. The remaining outstanding amount consisted of the exchange of $56.9 million for the new 8% senior secured notes due 2024, about $20.0 million for its junior payment-in-kind notes with no fixed final maturity date, and about $10.3 million paid in cash through a capital injection from shareholders of MXN330 million.

Table 76

Issuer Credit Rating--Maxcom Telecomunicaciones S.A.B. de C.V.

Date	To
10-Dec-2019	CCC+/Stable/--
21-Aug-2019	D/--/--
19-Jun-2019	CC/Watch Neg/--
05-Apr-2019	CCC/Negative/--
03-Apr-2019	SD/NM/--
26-May-2017	CCC+/Stable/--
24-May-2017	SD/NM/--
27-Apr-2017	CC/Negative/--
17-Feb-2016	CCC+/Stable/--
01-Apr-2014	B-/Stable/--
19-Jun-2013	D/--/--
21-Feb-2013	CC/Negative/--
06-Dec-2012	CCC+/Watch Neg/--
23-Aug-2011	CCC+/Negative/--
03-Mar-2011	B-/Negative/--
22-Jun-2010	B/Negative/--
09-Mar-2009	B/Stable/--
12-Oct-2007	B/Positive/--
27-Nov-2006	B/Stable/--

Debenhams PLC

- GBP225 million 5.25% notes due July 15, 2021

- GBP320 million guaranteed senior unsecured due June 30, 2021

On March 29, 2019, Debenhams PLC finalized £200 million of new money facilities, with the group submitting a request to draw down the first £101 million tranche. S&P Global Ratings lowered its issuer credit rating on the company to 'SD' from 'CC' on April 4, 2019, to reflect the default on only a portion of the group's obligations.

Later, on April 16, 2019, we lowered our issuer credit rating on the company to 'D' from 'SD' after the company filed for administration, passing control of the group's operating subsidiaries to its lenders in a prepackaged sale.

Table 77

Issuer Credit Rating--Debenhams PLC

Date	To
16-Apr-19	D/--/--
4-Apr-19	SD/NM/--
27-Mar-19	CC/Watch Neg/--
7-Mar-19	CCC-/Watch Neg/--
15-Jan-19	CCC+/Negative/--
2-Nov-18	B-/Negative/--
2-Aug-18	B/Negative/--
25-Apr-18	B+/Negative/--
22-Nov-17	BB-/Negative/--
27-May-15	BB-/Stable/--
23-Jun-14	BB-/Negative/--

Fusion Connect Inc.

- US$40 million revolver bank notes due May 4, 2022

- US$45 million term A bank loan due May 4, 2022

- US$510 million first-lien term B loan bank loan due May 4, 2023

- US$85 million second-lien term B loan bank loan due Nov. 3, 2023

On April 4, 2019, S&P Global Ratings lowered its issuer credit rating on New York-based integrated cloud solutions provider Fusion Connect Inc. to 'D' from 'B' after the company elected not to pay about $7 million in aggregate principal due April 1, 2019, on its first-lien term loans.

Table 78

Issuer Credit Rating--Fusion Connect Inc.

Date	To
4-Apr-19	D/--/--
20-Feb-18	B/Negative/--

Curvature Inc.

- US$78.528 million second-lien notes due Oct. 28, 2024

- US$530 million first-lien term bank loan due Oct. 28, 2023

- US$55 million revolver bank loan due Oct. 28, 2022

- US$115 million second-lien secured bank loan due Oct. 27, 2024

On April 5, 2019, S&P Global Ratings lowered its issuer credit rating on North Carolina-based

global information technology service provider Curvature Inc. to 'SD' from 'CCC+' after the company completed a second-lien debt exchange transaction, deemed a distressed exchange because the timing of some of the payments on the second-lien notes due Oct. 28, 2024, had been postponed. The ranking of $138.5 million of the existing second-lien notes had also been effectively lowered in the payment waterfall.

Subsequently, on April 10, 2019, we raised our issuer credit rating on the company to 'CCC' from 'SD', given cost-cutting initiatives. The rating action reflected our view that Curvature's capital structure was unsustainable, and with its recent weak operating performance, we believed the company faced significant risks in executing its revenue turnaround strategy after recent merger integration challenges that caused sales execution issues.

Table 79

Issuer Credit Rating--Curvature Inc.

Date	To
10-Apr-19	CCC/Negative/--
5-Apr-19	SD/NM/--
27-Sep-18	CCC+/Stable/--
19-Sep-17	B-/Stable/--
13-Sep-16	B/Stable/--

MIE Holdings Corp.

-   US$500 million 7.50% notes due April 25, 2019

-   US$248.39 million 13.75% senior unsecured notes due March 26, 2022

-   HK$340 million 5.00% notes due Jan. 26, 2021

On April 12, 2019, S&P Global Ratings lowered its issuer credit rating on Cayman Islands-based global information technology service provider MIE Holdings Corp. to 'SD' from 'CC' after MIE completed an exchange offer for its senior unsecured notes due April 25, 2019. We viewed the transaction as a distressed exchange because investors would receive significantly less than what they were promised for the original securities on the maturity date.

On April 25, 2019, we raised our issuer credit rating on the company to 'CCC-' from 'SD' upon completion of its exchange offer. This reflected our view that the company's nonrepayment risk in the next six months remained high due to the material liquidity deficit. MIE's capital structure was still unsustainable, despite the recent completion of its exchange offer.

Later, on May 14, 2019, the ratings on the company were withdrawn.

Table 80

Issuer Credit Rating--MIE Holdings Corp.

Date	To
14-May-19	NR/--/--
25-Apr-19	CCC-/Negative/--
12-Apr-19	SD/NM/--

Table 80

Issuer Credit Rating--MIE Holdings Corp. (cont.)

Date	To
1-Mar-19	CC/Negative/--
28-Aug-17	CCC-/Negative/--
28-Aug-17	SD/NM/--
12-Jun-17	CC/Negative/--
11-Apr-17	CCC/Negative/--
25-Jan-16	B-/Negative/--
7-Aug-15	B/Watch Neg/--
19-Jan-15	B/Stable/--
26-Apr-11	B+/Stable/--

Jones Energy Inc.

- US$450 million 9.25% first-lien notes due March 15, 2023
- US$250 million 9.25% senior unsecured notes due March 15, 2023
- US$450 million 9.25% first-lien notes due March 15, 2023
- US$500 million 6.75% senior unsecured notes due April 1, 2022

On April 14, 2019, the Texas-based oil and gas company Jones Energy Inc. defaulted after it filed for bankruptcy under Chapter 11.

Earlier, on Oct. 15, 2015, S&P Global Ratings had withdrawn its ratings on the issuer.

Table 81

Issuer Credit Rating--Jones Energy Inc.

Date	To
15-Oct-15	NR/--/--
24-Mar-14	B/Stable/--

Crossmark Holdings Inc.

- US$105 million second-lien term bank loan due Dec. 21, 2020
- US$425 million first-lien term bank loan due Dec. 21, 2019
- US$56.25 million revolver bank loan due June 28, 2019
- US$100 million first-lien senior secured bank loan due Dec. 21, 2019

On April 15, 2019, S&P Global Ratings lowered its issuer credit rating on Texas-based sales and marketing service company Crossmark Holdings Inc. to 'SD' from 'CC'. The downgrade followed the

issuer's missed principal and interest payments on its $425 million first-lien term loan due December 2019 and missed interest payment on its $90 million second-lien term loan due December 2020.

Earlier, on Jan. 17, 2019, we had lowered our issuer credit rating on Crossmark Holdings Inc. to 'CC' from 'CCC' ahead of potential restructuring.

Later, on Oct. 11, 2019, we withdrew our issuer credit rating on the company at its request.

Table 82

Issuer Credit Rating--Crossmark Holdings Inc.

Date	To
11-Oct-19	NR/--/--
15-Apr-19	SD/NM/--
17-Jan-19	CC/Negative/--
14-Sep-17	CCC/Negative/--
24-Jan-17	CCC+/Stable/--
1-Apr-15	B-/Stable/--
15-Jan-13	B/Stable/--

Bristow Group Inc.

- US$350 million 8.75% notes due March 1, 2023

- US$450 million 6.25% senior unsecured (callable) notes due Oct. 15, 2022

- US$143.75 million 4.50% notes due June 1, 2023

On April 16, 2019, S&P Global Ratings lowered its issuer credit rating on Houston-based global helicopter service provider Bristow Group Inc. to 'D' from 'CCC-'. The downgrade reflected Bristow's decision to exercise its 30-day grace period after electing not to make a $12.5 million interest payment on its 6.25% unsecured notes due 2022. The company also announced that it had entered into temporary waiver agreements with its lenders in order to avoid defaulting on its asset-based loan and equipment loans because of the missed interest payment.

Later, on June 7, 2019, we withdrew our ratings on the company.

Table 83

Issuer Credit Rating--Bristow Group Inc.

Date	To
7-Jun-19	NR/--/--
16-Apr-19	D/NM/--
11-Apr-19	CCC-/Negative/--
12-Feb-19	CCC+/Negative/--
11-Jan-19	B-/Watch Neg/--
12-Nov-18	B/Watch Neg/--
16-May-17	B/Negative/--

Table 83

Issuer Credit Rating--Bristow Group Inc. (cont.)

Date	To
13-Feb-17	BB-/Negative/--
19-Feb-16	BB-/Stable/--
21-Feb-13	BB/Stable/--
23-Feb-12	BB/Negative/--
21-Mar-08	BB/Stable/--
13-Jun-06	BB/Negative/--
27-Apr-05	BB/Watch Neg/--
3-Jun-03	BB+/Stable/--
31-May-02	BB/Positive/--
7-Dec-98	BB/Stable/--
16-Jan-98	BB/Positive/--
21-Nov-96	BB/Stable/--

Parq Holdings L.P.

- US$245.61 million first-lien term bank loan due Dec. 17, 2020

- US$45 million first-lien term delayed draw bank loan due Dec. 17, 2020

- US$150 million second-lien second bank loan

On May 2, 2019, S&P Global Ratings lowered its issuer credit rating on Vancouver-based casino operator Parq Holdings L.P. to 'SD' from 'CCC'. The downgrade followed Parq's further deferral of the company's first-quarter 2019 second-lien interest payment beyond the 30-day grace period that expired on April 30, 2019. In our view, the extended deferral on the interest payment stemmed from the timing of the proposed refinancing of Parq's existing capital structure, along with the company's operational underperformance, which had affected Parq's liquidity and its ability to service its debt obligations in a timely fashion.

Later, on June 6, 2019, we withdrew our ratings on the company.

Table 84

Issuer Credit Rating--Parq Holdings L.P.

Date	To
6-Jun-19	NR/--/--
2-May-19	SD/NM/--
15-Apr-19	CCC/Negative/--
12-Nov-14	B-/Stable/--

Senvion Holding GmbH

- EUR125 million variable-rate bank loan due April 25, 2022

- EUR400 million 3.875% notes due Oct. 25, 2022

On May 2, 2019, S&P Global Ratings lowered its issuer credit rating on Germany-based wind turbine manufacturer Senvion Holding GmbH to 'SD' from 'CC'. We downgraded Senvion because it elected not to make the €7.75 million interest payment on its €400 million senior secured notes due 2022. We believed the company was likely to miss its next interest payment on the facility due at end-June 2019, with default then imminent.

Earlier, on April 12, 2019, we had lowered our issuer credit rating on Senvion to 'CC' from 'CCC+'. The downgrade followed the issuer's announcement that it filed a petition for self-administrated insolvency, following unsuccessful refinancing discussions with lenders. The rating reflected our view that a default event or debt restructuring was inevitable.

On July 15, 2019, we lowered our issuer credit rating on Senvion Holding GmbH to 'D' from 'SD' after the company missed the interest payment on its €125 million supersenior revolving credit facility due April 2022 and the grace period had already elapsed.

On Oct. 25, 2019, we withdrew our ratings on the issuer at its request.

Table 85

Issuer Credit Rating--Senvion Holding GmbH

Date	To
25-Oct-19	NR/--/--
15-Jul-19	D/--/--
2-May-19	SD/NM/--
12-Apr-19	CC/Negative/--
28-Feb-19	CCC+/Watch Neg/--
22-May-18	B/Negative/--
12-Feb-18	B+/Negative/--
7-Aug-15	B+/Stable/--

Hospital Acquisition LLC

On May 6, 2019, Texas-based long-term acute care services company Hospital Acquisition LLC defaulted after filing a voluntary petition for reorganization under Chapter 11 in the U.S. Bankruptcy Court.

Table 86

Issuer Credit Rating--Hospital Acquisition LLC

Date	To
17-Feb-17	NR/--/--
25-Jun-15	B-/Stable/--

Table 86

Issuer Credit Rating--Hospital Acquisition LLC (cont.)

Date	To
18-Jun-14	B-/Positive/--
8-May-13	B-/Stable/--

Preferred Proppants LLC

- US$425 million term bank loan due July 27, 2020

On May 9, 2019, S&P Global Ratings lowered the issuer credit rating on Pennsylvania-based hydraulic fracturing sand producer Preferred Proppants LLC (PPL) to 'D' from 'CCC'. The downgrade followed PPL's restructuring and recapitalization. The company's (unrated) asset-based lending facility due 2019 was decreased to $30 million from $50 million, and its first-lien term loan due 2020 was canceled, with holders receiving 100% of the equity in the new restructured company. PPL's (unrated) $300 million second-lien term loan due 2021 was also canceled, with no recovery for investors.

On May 9, 2019, we withdrew the ratings on the company.

Table 87

Issuer Credit Rating--Preferred Proppants LLC

Date	To
9-May-19	NR/--/--
9-May-19	D/NM/--
26-Jun-18	CCC+/Stable/--
13-Jul-16	CCC/Negative/--
17-Aug-15	B/Negative/--
1-Aug-14	B/Stable/--
12-Dec-13	D/NM/--
17-Oct-13	CCC/Watch Neg/--
30-Jan-13	B+/Negative/--
5-Sep-12	B+/Watch Neg/--
6-Jan-12	B+/Stable/--

USJ Acucar e Alcool S/A

- US$275 million 9.875% notes due Dec. 31, 2019

- US$272.78 million 10.50% payment-in-kind notes due Nov. 9, 2023

- US$197.03 million 9.875% secured notes due Nov. 9, 2021

On Nov. 28, 2019, S&P Global Ratings lowered its issuer credit rating on Brazilian sugarcane

processor USJ Acucar e Alcool S/A to 'SD' from 'CCC+' after the company missed the amortization and coupon payments of the outstanding amount of the 2019 notes, totaling $8.7 million and $400,000, respectively, due Nov. 9, 2019. It was the second time in 2019 the company had been placed on selective default.

Earlier, on May 22, 2019, we had lowered our global scale issuer credit rating on USJ to 'SD' from 'CC'. The downgrade followed bondholders' acceptance of the company's exchange offer of 69.95% and 98.10% of the original 2019 and 2021 bonds, respectively, on May 21, 2019. We considered the exchange offer to be distressed, which is tantamount to a default on USJ's obligations, because the new terms and conditions of payment differed from the original.

Then, on May 27, 2019, we raised the global scale issuer credit rating on USJ to 'CCC+' from 'SD', reflecting relief in the company's liquidity pressures following the conclusion of the debt exchange offer.

Table 88

Issuer Credit Rating--USJ Acucar e Alcool S/A

Date	To
28-Nov-19	SD/NM/--
27-May-19	CCC+/Negative/--
22-May-19	SD/NM/--
27-Mar-19	CC/Watch Neg/--
14-Jan-19	CCC-/Negative/--
11-Jul-18	CCC/Negative/--
28-Jul-17	CCC+/Stable/--
3-Mar-17	CCC+/Negative/--
27-Jul-16	CCC+/Stable/--
17-May-16	CCC-/Watch Pos/--
10-May-16	SD/NM/--
16-Mar-16	CC/Watch Neg/--
14-Jan-16	CCC-/Negative/--
24-Sep-15	B-/Negative/--
1-Jul-15	B/Watch Neg/--
5-Dec-14	B+/Negative/--
15-Jul-14	BB-/Negative/--
24-Oct-12	BB-/Stable/--

White Star Petroleum LLC

On May 28, 2019, Oklahoma-based White Star Petroleum LLC (formerly known as American Energy - Woodford LLC), which explores and produces oil and gas, defaulted after filing a voluntary petition for reorganization under Chapter 11 in the U.S. Bankruptcy Court for the Western District of Oklahoma on May 24, 2019.

Table 89

Issuer Credit Rating--White Star Petroleum Holdings LLC

Date	To
17-Aug-16	NR/--/--
26-Jul-16	CCC+/Negative/--
28-Apr-16	SD/NM/--
10-Feb-16	CCC/Negative/--
26-Jun-15	CCC+/Positive/--
25-Jun-15	SD/NM/--
27-May-15	CC/Watch Neg/--
5-May-15	CCC+/Negative/--
4-Sep-14	B-/Stable/--

Sheridan Investment Partners II L.P.

- US$388 million bank loan

- US$800 million term loan bank loan due 2020

On May 31, 2019, S&P Global Ratings lowered its long-term issuer credit ratings on Sheridan Production Partners II-A L.P., Sheridan Investment Partners II L.P., and Sheridan Production Partners II-M L.P. (collectively referred to as "Sheridan Fund II") to 'SD' from 'CCC-'. The downgrade reflected that Sheridan Fund II entered into agreements with its creditors to defer debt service payments on its revolving credit facility and secured term loan to July 31. The term and revolver lenders would not receive $9 million in interest payments on the original May 31 due date, and $1.4 million in amortization payments on the term loan due at the end of June would not be made at that time. We view such missed payments, with no additional consideration for the deferral, as a default.

On Sept. 17, 2019, we lowered our long-term issuer credit ratings on Sheridan to 'D' after it entered a restructuring support agreement with respective lenders.

Later, on Dec. 12, 2019, we withdrew our issuer credit ratings on the company at its request.

Table 90

Issuer Credit Rating--Sheridan Investment Partners II L.P.

Date	To
12-Dec-19	NR/--/--
17-Sep-19	D/--/--
31-May-19	SD/NM/--
18-Apr-19	CCC-/Negative/--
20-Oct-17	CCC+/Negative/--
8-Feb-16	CCC-/Negative/--
2-Feb-16	SD/NM/--
29-Dec-15	CCC/Negative/--

Table 90

Issuer Credit Rating--Sheridan Investment Partners II L.P. (cont.)

Date	To
23-Dec-14	B+/Negative/--
4-Dec-13	B+/Stable/--

Sheridan Investment Partners I LLC

- US$255 million revolver bank loan due May 31, 2019

- US$900 million term loan B-2 bank loan due Oct. 1, 2019

On May 31, 2019, S&P Global Ratings lowered its long-term issuer credit ratings on Sheridan Production Partners I-A L.P., Sheridan Investment Partners I LLC, and Sheridan Production Partners I-M L.P. (collectively referred to as "Sheridan Fund I") to 'SD' from 'CCC-'. The rating action followed the extension of the fund's $168 million maturing revolving credit facilities to June 14, 2019, and the fund's proposal to extend the revolver and term loan maturities to match the expected 2022 end of the fund.

On Oct. 3, 2019, S&P Global Ratings downgraded Sheridan Investment Partners I LLC to 'D' from 'SD' after it decided to cease interest payments. The company had obtained waivers from the majority if term loan and revolving credit facilities lenders regarding the payment of cash interest and the maturity of the credit facilities as it negotiated a potential restructuring transaction.

Later, on Dec. 12, 2019, we withdrew our issuer credit ratings on the company at its request.

Table 91

Issuer Credit Rating--Sheridan Investment Partners I LLC

Date	To
12-Dec-19	NR/--/--
3-Oct-19	D/--/--
31-May-19	SD/NM/--
26-Oct-18	CCC-/Watch Dev/--
13-Dec-16	CCC+/Negative/--
8-Feb-16	CCC-/Negative/--
2-Feb-16	SD/NM/--
29-Dec-15	CCC/Negative/--
23-Dec-14	B+/Negative/--
4-Dec-13	B+/Stable/--

FTD Inc.

On May 31, 2019, FTD Inc., a wholly owned subsidiary of FTD Cos., a U.S.-based company engaged in providing floral, gift, and related products and services, completed the sale of the company's

Interflora business in the U.K. through the sale of all of the issued and outstanding equity interests of its wholly owned subsidiary. Subsequently, on June 3, 2019, FTD Inc. defaulted after filing for Chapter 11 bankruptcy.

Earlier, on Aug. 28, 2008, S&P Global Ratings had withdrawn its ratings on the issuer.

Table 92

Issuer Credit Rating--FTD Inc.

Date	To
28-Aug-08	NR/--/--
30-Apr-08	B+/Watch Neg/--
29-Jan-04	B+/Stable/--

Legacy Reserves L.P.

- US$250 million 6.625% notes due Dec. 1, 2021

- US$300 million 8.00% senior unsecured notes due Dec. 1, 2020

- US$300 million second-lien term bank loan due Aug. 31, 2021

On June 4, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Midland, Texas-based oil and gas exploration and production company Legacy Reserves L.P. to 'D' from 'CCC-'. The rating was lowered after the issuer announced that it elected not to make its interest payments on its senior unsecured and convertible notes due 2020, 2021, and 2023. We did not expect the company to make these payments within 30 days. We view the missed interest payments as a general default.

Table 93

Issuer Credit Rating--Legacy Reserves L.P.

Date	To
5-Aug-19	NR/--/--
4-Jun-19	D/--/--
18-Mar-19	CCC-/Negative/--
28-Sep-18	CCC/Negative/--
21-Sep-18	SD/NM/--
18-Sep-18	CC/Negative/--
27-Sep-16	CCC/Negative/--
9-Feb-16	B-/Stable/--
2-Oct-15	B/Stable/--
16-Jan-15	B+/Negative/--
8-May-14	B+/Stable/--
13-Nov-12	B/Stable/--

Neiman Marcus Group LLC (The)

- US$125 million 7.125% senior debt due June 1, 2028

- US$12.697 million term bank loan due Oct. 25, 2020

- US$600 million 8.75% payment-in-kind toggle notes due Oct. 15, 2021

- US$960 million 8.00% cash pay notes due Oct. 15, 2021

On June 11, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Massachusetts-based retail company The Neiman Marcus Group LLC to 'SD' from 'CC'. The rating was lowered after the issuer announced the settlement of its comprehensive restructuring, including a second-lien note offering and debt exchange. We viewed the restructuring (including the second-lien note offering and debt exchange) as a selective default because of the company's distressed financial condition and the likelihood of a conventional default in the absence of the restructuring, and because debt investors received less than the promise of the original securities.

Later, on June 14, 2019, we raised our long-term issuer credit rating on The Neiman Marcus Group LLC to 'CCC' from 'SD', owing to a perceived continued risk of default in the next 12 months.

Table 94

Issuer Credit Rating--Neiman Marcus Group LLC (The)

Date	To
14-Jun-19	CCC/Negative/--
11-Jun-19	SD/NM/--
4-Mar-19	CC/Negative/--
29-Oct-18	CCC-/Negative/--
30-Jun-17	CCC/Negative/--
9-Feb-17	CCC+/Negative/--
17-Mar-16	B-/Negative/--
7-Jan-16	B-/Stable/--
4-Oct-13	B/Stable/--
10-Sep-13	B+/Watch Neg/--
21-Apr-11	B+/Stable/--
26-Mar-10	B/Stable/--
16-Apr-09	B/Negative/--
5-Feb-09	B+/Watch Neg/--
11-Dec-08	B+/Negative/--
9-Oct-07	BB-/Stable/--
22-Mar-07	B+/Watch Pos/--
30-Sep-05	B+/Stable/--
16-Mar-05	BBB/Watch Neg/--
20-Jan-04	BBB/Stable/--
7-Feb-02	BBB/Negative/--

Table 94

Issuer Credit Rating--Neiman Marcus Group LLC (The) (cont.)

Date	To
30-Oct-98	BBB/Stable/--
30-Apr-98	BBB/Positive/--

New Academy Holding Co. LLC

- US$1.825 billion term B bank loan due July 1, 2022

On June 14, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Texas-based sporting goods retailer New Academy Holding Co. LLC to 'SD' from 'CCC+'. The rating was lowered after the issuer repurchased an additional $54.4 million of principal of its senior secured term loan facility due in 2022 at approximately 30% lower than par through open-market transactions. We view these repurchases at less than the original promise as de facto partial restructuring.

Later, on June 20, 2019, we raised our long-term issuer credit rating on the company to 'CCC+' from 'SD' after it completed repurchases of its senior secured term loan facility due 2022, which we considered a distressed exchange. The rating reflected the risk of conventional default and incorporated our view of ongoing risks to the company's business and still-sizable funded debt level.

Table 95

Issuer Credit Rating--New Academy Holding Co. LLC

Date	To
20-Jun-19	CCC+/Negative/--
14-Jun-19	SD/NM/--
14-Sep-17	CCC+/Negative/--
3-Apr-17	B-/Negative/--
1-Nov-16	B-/Stable/--
9-Apr-14	B/Stable/--

Denbury Resources Inc.

- US$1.2 billion 4.625% senior subordinated notes due July 15, 2023

- US$1.25 billion 5.50% senior notes due May 1, 2022

- US$3.5 billion revolving bank loan due Dec. 09, 2019

- US$400 million second-lien notes due 2024

- US$400 million 6.375% senior notes due Aug. 15, 2021

- US$455.7 million 9.25% second-lien notes due 2022

- US$615.1 million 9.00% second-lien notes due May 15, 2021

- US$528.026 million 7.75% second-lien notes due Feb. 15, 2024

- US$245.548 million 6.375% senior unsecured notes due Dec. 31, 2024

On June 19, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Texas-based oil and gas production company Denbury Resources Inc. to 'SD' from 'CC'. The rating was lowered after the issuer closed on its previously announced privately negotiated exchange whereby it exchanged a portion of its senior subordinated notes for a combination of new senior secured second-lien notes, cash, and new senior convertible notes. We viewed the transaction of the subordinated notes as distressed despite the exchange being at nominal par value. We viewed the value of the exchange as less than the original promise under the subordinated notes because of the maturity extension and the potential for forced conversion to equity. In addition, we viewed the exchange as distressed rather than opportunistic because of the trading levels of the notes.

Later, on July 2, 2019, we raised our long-term issuer credit rating on the company to 'CCC+' from 'SD'. While the recent note repurchases reduced gross debt by approximately $120 million, we viewed leverage as high in 2019 and 2020. Under our price and cost assumptions, the company would have limited covenant headroom when it stepped down in 2021. However, the new senior convertible notes' potential conversion to equity could improve debt metrics and decrease leverage.

Table 96

Issuer Credit Rating--Denbury Resources Inc.

Date	To
2-Jul-19	CCC+/Negative/--
19-Jun-19	SD/NM/--
5-Jun-19	CC/Negative/--
26-Mar-19	CCC+/Negative/--
30-Oct-18	B-/Watch Pos/--
14-Aug-18	B-/Stable/--
23-May-18	CCC+/Positive/--
15-Feb-18	CCC+/Stable/--
11-Dec-17	SD/NM/--
4-Dec-17	CC/Negative/--
24-May-16	CCC+/Negative/--
12-May-16	SD/NM/--
4-May-16	CC/Negative/--
9-Feb-16	B/Negative/--
23-Dec-15	BB-/Negative/--
2-Oct-15	BB-/Stable/--
16-Jan-15	BB/Negative/--
22-Jan-13	BB/Stable/--
25-Oct-12	BB/Positive/--
21-Jun-10	BB/Stable/--
26-Jan-09	BB/Negative/--

Table 96

Issuer Credit Rating--Denbury Resources Inc. (cont.)

Date	To
4-Nov-05	BB/Stable/--
11-Mar-04	BB-/Positive/--
20-May-02	BB-/Stable/--
8-Jun-01	B+/Positive/--
3-Sep-99	B+/Stable/--
27-Apr-99	B/Positive/--
11-Aug-98	B/Stable/--
27-Jan-98	B+/Stable/--

Galapagos Holding S.A.

-   EUR250 million 7.00% notes due June 15, 2022

-   EUR127.029 million 5.375% notes due June 15, 2021

-   EUR206.445 million notes due June 15, 2021

-   EUR400 million supersenior bonding facility bank loan due May 20, 2020

-   EUR75 million supersenior secured revolving credit facility bank loan due May 20, 2020

On June 21, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Luxembourg-based heat exchanger manufacturing holding company Galapagos Holding S.A. to 'SD' from 'CC'. The rating was lowered after the issuer missed interest payments of €8.8 million on its €250 million senior unsecured notes and €5.8 million on its €333 million senior secured notes. A payment default had not yet occurred under the indenture governing the notes, which provided a grace period. However, we believed the company would not remedy the missed payments for the senior unsecured and senior secured notes because it announced a balance-sheet restructuring plan and clearly stated that missed interest payments would not be made during the grace period for the senior secured and senior unsecured notes.

Later, on Dec. 23, 2019, we withdrew our issuer credit ratings on the company at its request.

Table 97

Issuer Credit Rating--Galapagos Holding S.A.

Date	To
23-Dec-19	NR/--/--
21-Jun-19	SD/NM/--
13-Jun-19	CC/Negative/--
24-Apr-19	CCC-/Negative/--
25-Sep-17	CCC+/Negative/--
11-Oct-16	B-/Stable/--

Table 97

Issuer Credit Rating--Galapagos Holding S.A. (cont.)

Date	To
1-Oct-14	B/Stable/--

Cell C (Pty) Ltd.

- US$184 million 8.625% notes due Aug. 2, 2020

On June 26, 2019, S&P Global Ratings lowered its long-term issuer credit rating on South Africa-based telecommunication service provider Cell C (Pty) Ltd. to 'SD' from 'CCC-'. The rating was lowered after the issuer amended the terms of the private Airtime Facility agreement to delay the timing of selected repayments. Cell C had fulfilled all of its debt obligations to date, including repayments under this amended agreement, and as such, no conventional event of default had been triggered. However, we viewed the repayment schedule restructuring as a distressed exchange, and therefore tantamount to a selective default, given Cell C's liquidity stress and unsustainable capital structure. Furthermore, because the schedule of agreed repayments had slowed, we believed lenders would receive less value than the promise of the original agreement. We also believed there was a realistic possibility of a conventional payment default before the exchange, given the company's weak liquidity position.

On Aug. 22, 2019, S&P Global Ratings downgraded Cell C to 'D' from 'SD' after the company failed to make interest payments on certain bilateral loan facilities due July 2019. The company had also suspended future interest payments pending the conclusion of its operational and balance-sheet restructuring.

Table 98

Issuer Credit Rating--Cell C (Pty) Ltd.

Date	To
22-Aug-19	D/--/--
26-Jun-19	SD/NM/--
16-Apr-19	CCC-/Developing/--
7-May-18	CCC+/Negative/--
7-Aug-17	B-/Negative/--
6-Feb-17	D/--/--
6-Dec-16	SD/NM/--
14-Oct-16	B/Stable/--
28-Jun-16	B-/Watch Dev/--
22-Dec-15	B-/Watch Pos/--
22-Jul-15	B-/Stable/--
1-Jun-15	B-/Watch Neg/--
21-Jun-12	B-/Stable/--
14-Dec-10	B-/Positive/--

Table 98

Issuer Credit Rating--Cell C (Pty) Ltd. (cont.)

Date	To
15-Sep-10	B-/Watch Pos/--
9-Jul-08	B-/Stable/--
15-May-08	B-/Watch Pos/--
7-Dec-07	B-/Negative/--
13-Jun-06	B/Negative/--
15-Apr-05	B+/Stable/--

Mood Media Corp.

- US$187.9 million PIK notes due Dec. 31, 2024

On June 28, 2019, S&P Global Ratings lowered its long-term issuer credit rating on Delaware-based in-store media solutions provider Mood Media Corp. to 'SD' from 'CC'. The rating was lowered after the issuer completed its offer to exchange its partial cash pay (6% cash and 8% PIK) senior unsecured notes due in 2024 (old debt) for new $259.2 million senior unsecured notes (100% PIK) due in 2023. In aggregate, the company expected to issue approximately $277.8 million of new notes, including accrued and unpaid interest. The company also announced that it had previously raised an additional $34.4 million under its old debt to fund the acquisition of franchisee South Central A/V.

Later, on July 1, 2019, we raised our long-term issuer credit rating on the company to 'CCC' from 'SD' after the company completed its exchange offer. In our opinion, the company should have had the resources to service its debt over the short term, due to recent actions. However, ongoing operational challenges would continue to pressure free cash flow and weaken credit metrics. Therefore, we still believed there was a risk of another debt restructuring within the next 12 months without a significant improvement in the business.

Table 99

Issuer Credit Rating--Mood Media Corp.

Date	To
1-Jul-19	CCC/Negative/--
28-Jun-19	SD/NM/--
28-May-19	CC/Negative/--
31-Jul-18	CCC+/Negative/--
30-Jun-17	B-/Negative/--
29-Jun-17	SD/NM/--
18-Apr-17	CC/Negative/--
17-Apr-15	CCC+/Negative/--
7-Apr-14	B-/Negative/--
24-Apr-13	B-/Stable/--

Table 99

Issuer Credit Rating--Mood Media Corp. (cont.)

Date	To
9-Oct-12	B/Stable/--
27-Apr-12	B/Positive/--
6-Apr-11	B/Stable/--

Weatherford International PLC

- US$1.1 billion 5.875% senior notes due July 1, 2021

- US$500 million term A bank loan due July 13, 2020

- US$600 million 9.875% senior notes due March 1, 2025

- US$750 million 7.75% senior notes due June 15, 2021

- US$750 million 8.25% senior notes due June 15, 2023

- US$790 million 9.875% senior notes due Feb. 15, 2024

- US$300 million 6.80% senior notes due June 15, 2037

- US$250 million 9.875% senior notes due March 1, 2039

- US$500 million 7.00% senior notes due March 15, 2038

- US$550 million 5.95% senior notes due April 15, 2042

- US$583 million unsecured guaranteed revolver bank loan due July 13, 2020

- US$600 million 6.50% senior notes due Aug. 1, 2036

- US$600 million 6.75% notes due Sept. 15, 2040

- US$750 million 4.50% notes due April 15, 2022

- US$800 million 5.125% notes due Sept. 15, 2020

On July 2, 2019, S&P Global Ratings lowered its issuer credit rating on Ireland-based oilfield service provider Weatherford International PLC to 'D' from 'CC' following the company's filing for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code.

Later, on Dec. 16, 2019, we raised the issuer credit rating on Weatherford to 'B-' from 'D', after revisions to our recovery ratings criteria.

Table 100

Issuer Credit Rating--Weatherford International PLC

Date	To
16-Dec-2019	B-/Negative/--
2-Jul-2019	D/--/--
13-May-2019	CC/Negative/--
24-Dec-2018	CCC/Negative/--

Table 100

Issuer Credit Rating--Weatherford International PLC (cont.)

Date	To
24-Oct-2018	B-/Negative/--
24-Oct-2017	B/Negative/--
15-Nov-2016	B+/Negative/--
17-May-2016	BB-/Negative/--
28-Mar-2016	BB+/Negative/--
17-Nov-2015	BB+/Stable/--

PES Holdings LLC

- US$120 million tranche A term bank loan due Dec. 31, 2022

- US$417 million tranche C term bank loan due Dec. 31, 2022

- US$82.5 million tranche B term bank loan due Dec. 31, 2022

- US$58 million first-lien guaranteed senior secured bank loan due Feb. 14, 2022

On July 3, 2019, S&P Global Ratings lowered its issuer credit rating on New Jersey-based oil and gas refining company PES Holdings LLC to 'D' from 'B-' after the company elected to not make an interest payment due on June 28, 2019, which constituted an event of default under our timeliness of payments criteria.

Later, on Sept. 30, 2019, we withdrew our issuer credit rating on PES Holdings LLC at the issuer's request.

Table 101

Issuer Credit Rating--PES Holdings LLC

Date	To
30-Sep-2019	NR/--/--
3-Jul-2019	D/--/--
11-Sep-2018	B-/Stable/--

Stearns Holdings LLC

- US$250 million 9.375% notes due Aug. 15, 2020

On July 11, 2019, S&P Global Ratings lowered its issuer credit rating on California-based mortgage lending services company Stearns Holdings LLC to 'D' from 'CCC+' following the company's announcement of an agreement with its majority equityholder, Blackstone, to implement a restructuring plan. This restructuring would be implemented through a Chapter 11 bankruptcy filing.

On Nov. 21, 2019, we raised the issuer credit rating on Stearns to 'CCC' from 'D' after it emerged

from Chapter 11 bankruptcy on Nov. 5, with funds of Blackstone, Stearns' financial sponsor, acquiring 100% stake in the company. Subsequent to the upgrade, we withdrew our issuer credit rating on the company at its request.

Table 102

Issuer Credit Rating--Stearns Holdings LLC

Date	To
21-Nov-2019	NR/--/--
21-Nov-2019	CCC/Negative/--
11-Jul-2019	D/--/--
20-Dec-2018	CCC+/Negative/--
16-Aug-2018	B-/Negative/--
21-Aug-2017	B/Negative/--
23-Aug-2016	B/Stable/--
11-Dec-2015	B+/Negative/--
21-Aug-2015	B+/Watch Neg/--
13-Jun-2014	B+/Negative/--
30-Jul-2013	B+/Stable/--

American Energy Permian Holdings LLC

- US$515 million notes due May 1, 2022

- US$295 million 8.00% secured second-lien notes due June 15, 2020

- US$350 million 6.737% senior unsecured notes due Aug. 1, 2019

- US$560 million first-lien notes due Dec. 31, 2020

- US$600 million 7.375% senior unsecured notes due Nov. 1, 2021

- US$650 million 7.125% senior unsecured notes due Nov. 1, 2020

On July 18, 2019, S&P Global Ratings lowered its issuer credit rating on Oklahoma City-based American Energy Permian Holdings LLC (formerly known as Sable Permian Resources Holdings LLC), the parent and debt-issuing vehicle of oil and gas company American Energy - Permian Basin LLC, to 'D' from 'CC'. This downgrade came after the subsidiary missed the 30-day forbearance period and the subsequent extension on the missed interest payments on its senior unsecured notes due 2019, 2020, and 2021.

On Nov. 20, 2019, we raised our issuer credit rating on the company upon completion of a comprehensive debt restructuring outside of bankruptcy. Despite the debt restructuring, which resulted in a $1.4 billion reduction in overall debt, we expected that debt leverage would remain high. We also assessed liquidity as less than adequate, given our expectation for negative free cash flow over the next 12 months, combined with modest maturities of the stub portions of the company's old senior unsecured notes.

Table 103

Issuer Credit Rating--American Energy Permian Holdings LLC

Date	To
20-Nov-2019	CCC+/Negative/--
18-Jul-2019	D/--/--
8-May-2019	CC/Negative/--
27-Jul-2018	CCC/Negative/--
11-Sep-2017	CCC+/Negative/--
25-May-2016	CCC/Negative/--
13-May-2016	SD/NM/--
2-Oct-2015	CCC+/Negative/--
4-May-2015	B-/Negative/--
30-Oct-2014	B/Negative/--

Blackhawk Mining LLC

- US$624.463 million first-lien senior secured bank loan due Feb. 17, 2022

- US$35.537 million first-lien senior secured bank loan due Feb. 17, 2022

- US$229.239 million second-lien secured bank loan due April 7, 2021

On July 19, 2019, Blackhawk Mining LLC filed for Chapter 11.

On Nov. 16, 2015, we had withdrawn our ratings on the issuer at its request, less than a year after we first rated the company.

Table 104

Issuer Credit Rating--Blackhawk Mining

Date	To
16-Nov-2015	NR/--/--
05-May-2015	B/Stable/--

99 Cents Only Stores LLC

- US$250 million 11.00% senior notes due Dec. 15, 2019

- US$433.99 million first-lien term bank loan due Jan. 13, 2022

- US$140.11 million 13.00% secured notes due April 14, 2022

- US$160 million first-lien guaranteed senior secured bank loan due April 8, 2021

- US$25 million first-lien guaranteed senior secured bank loan due April 8, 2021

- US$130 million second-lien guaranteed bank loan due April 12, 2022

On July 23, 2019, S&P Global Ratings lowered its issuer credit rating on City of Commerce,

Calif.-based food products retailer 99 Cents Only Stores LLC to 'SD' from 'CC' as the company executed an exchange of its second-lien term loan and secured notes facilities (both unrated) for its common and preferred equity. We considered this offer a distressed exchange, tantamount to a default, following the completion, based on the transaction terms and our criteria.

On Aug. 1, 2019, we raised our issuer credit rating on the company to 'CCC+' from 'SD' as the company completed its exchange. The 'CCC+' rating reflected our view of the company's capital structure as unsustainable, owing to the high leverage despite the debt reduction.

Table 105

Issuer Credit Rating--99 Cents Only Stores LLC

Date	To
01-Aug-2019	CCC+/Developing/--
23-Jul-2019	SD/NM/--
06-Jun-2019	CC/Negative/--
19-Dec-2017	CCC+/Negative/--
08-Nov-2017	SD/NM/--
29-Sep-2017	CC/Negative/--
24-May-2016	CCC+/Negative/--
19-Nov-2015	B-/Negative/--
24-Nov-2014	B-/Stable/--
01-Oct-2013	B/Negative/--
17-Feb-2012	B/Stable/--

Avianca Holdings S.A.

- US$550 million 8.375% notes due May 10, 2020

- US$495 million floating-rate first-lien bank loan due Aug. 18, 2022

On July 23, 2019, S&P Global Ratings lowered its issuer credit rating on Colombia-based airline operator Avianca Holdings S.A. to 'SD' from 'CCC+' following the company's announcement on July 22, 2019, that it had missed payments on several long-term leases and on the principal on some loan obligations, which constitutes an event of default. The company also announced an exchange offer proposal on its $550 million senior unsecured notes due May 2020 that, in our view, would not constitute a distressed exchange because the offer considers a par-value exchange with a higher interest rate and collateral promising equal or more value than the original notes, despite an extended maturity.

In early September 2019, the company announced that it tendered 86.41% of its existing notes for exchange, which would allow it to continue re-profiling its capital structure. This agreement would allow Avianca's noteholders to exchange their existing 8.375% notes due 2020 for the new notes. Avianca offered to exchange the notes at par value with a higher coupon rate (9%) due May 2023 upon the closing of an investment of up to $250 million of new equity or convertible debt from United Airlines Inc. and Kingsland Holdings. The new notes would include additional collateral that consists of certain intellectual property, including the Avianca brand, and stock representing the residual value after debt and other liabilities of the company's aircraft fleet, estimated at about $1

billion, which we believed could compensate creditors.

On Dec. 20, 2019, we raised our issuer credit rating on Avianca to 'B-' from 'SD' after it announced completion of its liability management plan after the renegotiation of its operating and financial leases.

Table 106

Issuer Credit Rating--Avianca Holdings S.A.

Date	To
20-Dec-2019	B-/Stable/--
23-Jul-2019	SD/NM/--
13-May-2019	CCC+/Watch Neg/--
13-Apr-2016	B/Stable/--
5-May-2015	B+/Stable/--
28-Mar-2014	B+/Positive/--
25-Apr-2013	B+/Stable/--

Barneys New York Inc.

On Aug. 6, 2019, New York-based retailer Barneys New York Inc. filed for Chapter 11 proceedings while it attempted to restructure its business in hopes of selling it.

In May 2012, we had withdrawn our ratings on Barneys New York Inc. at the issuer's request.

Table 107

Issuer Credit Rating--Barneys New York Inc.

Date	To
09-May-2012	NR/--/--
09-May-2012	B-/Stable/--
08-May-2012	SD/NM/--
09-Feb-2012	CC/Negative/--
10-Jun-2010	CCC/Negative/--
21-Apr-2010	CCC/Watch Pos/--
13-Apr-2009	CCC/Negative/--
05-Mar-2009	B-/Negative/--
12-Nov-2008	B-/Stable/--
27-Jul-2007	B/Negative/--

Halcon Resources Corp.

- US$625 million 6.75% senior notes due Feb. 15, 2025

- US$275 million first-lien guaranteed senior secured bank loan due Sept. 7, 2022

On Aug. 7, 2019, S&P Global Ratings lowered its issuer credit rating on Oklahoma City-based oil and gas exploration and production company Halcon Resources Corp. to 'D' from 'CC' after the company voluntarily filed for Chapter 11 bankruptcy.

On Oct. 14, 2019, S&P Global Ratings withdrew its ratings on Halcon at the company's request.

Table 108

Issuer Credit Rating--Halcon Resources Corp.

Date	To
14-Oct-2019	NR/--/--
07-Aug-2019	D/--/--
14-May-2019	CC/Negative/--
07-Jan-2019	CCC+/Negative/--
07-Aug-2018	B-/Negative/--
21-Sep-2016	B-/Stable/--
23-May-2016	D/--/--
28-Aug-2015	SD/NM/--
22-Jun-2015	B-/Negative/--
01-May-2015	SD/NM/--
10-Apr-2015	CCC+/Negative/--
16-Jan-2015	B/Negative/--
07-Dec-2012	B/Stable/--
22-Oct-2012	B-/Watch Pos/--
25-Jun-2012	B-/Positive/--

Sanchez Energy Corp.

- US$1.15 billion 6.125% senior notes due Jan. 15, 2023

- US$400 million 7.25% first-lien notes due Feb. 15, 2023

- US$600 million 7.75% notes due June 15, 2021

- US$25 million first-lien guaranteed senior secured bank loan due Feb. 14, 2023

On Aug. 12, 2019, S&P Global Ratings lowered its issuer credit rating on Houston-based oil exploration and production company Sanchez Energy Corp. to 'D' from 'CC' following the company's filing for Chapter 11 bankruptcy. Sanchez was in discussion with bondholders to restructure its debt. It engaged financial adviser Moelis & Co. LLC to explore strategic alternatives in December 2018 and deferred the coupon payment on its 2023 notes due July 15, 2019.

On Oct. 11, 2019, we withdrew our ratings on Sanchez Energy at the company's request.

Table 109

Issuer Credit Rating--Sanchez Energy Corp.

Date	To
11-Oct-2019	NR/--/--

Table 109

Issuer Credit Rating--Sanchez Energy Corp. (cont.)

Date	To
12-Aug-2019	D/--/--
17-Jul-2019	CC/Negative/--
08-Nov-2018	CCC/Negative/--
06-Feb-2018	B/Stable/--
12-Apr-2017	B/Positive/--
13-Jan-2017	B/Watch Pos/--
09-Feb-2016	B/Negative/--
28-May-2015	B/Stable/--
23-May-2014	B/Positive/--
04-Mar-2014	B/Stable/--
04-Jun-2013	B-/Positive/--

Burger BossCo Intermediate Inc.

- US$192.5 million first-lien term bank loan due April 25, 2024

- US$25 million revolving bank loan due April 25, 2022

On Sept. 3, 2019, S&P Global Ratings lowered its issuer credit rating on Florida-based quick-service restaurant operator and franchisor Burger BossCo Intermediate Inc. to 'SD' from 'CCC+' as the company converted the interest payments on its second-lien to payment-in-kind (PIK) from cash payments after executing an amendment to its first- and second-lien facilities. We considered this conversion tantamount to default because the PIK interest provided less than the original promise of the security.

Subsequently, on Sept. 5, 2019, we raised our issuer credit rating on the company to 'CCC' from 'SD', reflecting our view that despite the completion of the distressed exchange, the capital structure was unsustainable given the company's operating performance, weak liquidity, and very high leverage.

Table 110

Issuer Credit Rating--Burger BossCo Intermediate Inc.

Date	To
05-Sep-2019	CCC/Negative/--
03-Sep-2019	SD/NM/--
11-Dec-2018	CCC+/Negative/--
10-Jul-2018	B-/Stable/--

Alta Mesa Resources Inc.

- US$500 million 7.875% senior notes due Dec. 15, 2024

On Sept. 12, 2019, S&P Global Ratings lowered its issuer credit rating on Texas-based oil and gas exploration and production company Alta Mesa Resources Inc. to 'D' from 'CCC-' following the company's filing for Chapter 11 bankruptcy in Houston courts. The company had been experiencing production shortfalls, which, combined with a challenging commodity price environment and a capital market that was highly constrained for energy companies, ultimately led to the bankruptcy filing. As a result, we lowered the issuer credit ratings on Alta Mesa Resources Inc. and Alta Mesa Holdings L.P., as well as the issue ratings on their debt obligations, to 'D'.

Later, on Nov. 18, 2019, we withdrew our issuer credit rating on the company at its request.

Table 111

Issuer Credit Rating--Alta Mesa Resources Inc.

Date	To
18-Nov-2019	NR/--/--
12-Sep-2019	D/--/--
4-Mar-2019	CCC-/Negative/--
27-Dec-2018	CCC+/Developing/--
17-Sep-2018	B/Negative/--

Chesapeake Energy Corp.

- US$1 billion 6.125% senior notes due Feb. 15, 2021
- US$1.05 billion 8.00% senior notes due Jan. 15, 2025
- US$1.1 billion 5.75% unsecured notes due March 15, 2023
- US$1.3 billion 8.00% notes due June 15, 2027
- US$400 million 7.50% callable notes due Oct. 1, 2026
- US$850 million 7.00% callable notes due Oct. 1, 2024
- US$918.514 million 8.00% notes due March 15, 2026
- US$700 million 6.875% notes due Feb. 1, 2025
- US$500 million 6.875% senior notes due Nov. 15, 2020
- US$1.4 billion 6.625% senior notes due Aug. 15, 2020
- US$700 million 5.375% unsecured notes due June 15, 2021
- US$1.5 billion 4.875% senior notes due April 15, 2022
- US$1.25 billion 5.50% senior convertible due Sept. 15, 2026
- Reserve-based revolver due Sept. 12, 2023

- Reserve-based revolver due Dec. 19, 2021

On Sept. 13, 2019, S&P Global Ratings lowered its issuer credit rating on Oklahoma City-based Chesapeake Energy Corp. to 'SD' from 'B+' after the company entered into a privately negotiated securities exchange agreement whereby it agreed to exchange preferred stock and various amounts of unsecured notes maturing between 2022 and 2027 for equity at below par value. We viewed the transaction as distressed and tantamount to default based on the discounted trading levels of the securities prior to the announcement, the company's upcoming maturity schedule, high debt levels, and our expectation that it would outspend operating cash flow over at least the next two years.

Table 112

Issuer Credit Rating--Chesapeake Energy Corp.

Date	To
13-Sep-2019	SD/NM/--
11-Feb-2019	B+/Stable/--
31-Oct-2018	B/Watch Pos/--
05-Mar-2018	B/Stable/--
20-Jan-2017	B-/Positive/--
06-Dec-2016	CCC+/Watch Pos/--
29-Sep-2016	CCC+/Negative/--
19-Sep-2016	SD/NM/--
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/--

PT Delta Merlin Dunia Textile

- US$300 million 8.625% notes due March 12, 2024
- US$215 million guaranteed senior secured first-lien term loan due June 21, 2023

On Sept. 13, 2019, S&P Global Ratings lowered its issuer credit rating on Indonesian spinning, weaving, dyeing, finishing, and knitting company PT Delta Merlin Dunia Textile to 'D' from 'CC' after the company missed interest payments on its senior unsecured notes due on Sept. 12, 2019.

On Oct. 17, 2019,, S&P Global Ratings withdrew its ratings on the company at its request.

Table 113

Issuer Credit Rating--PT Delta Merlin Dunia Textile

Date	To
17-Oct-2019	NR/--/--
13-Sep-2019	D/--/--
22-Aug-2019	CC/Negative/--
16-Jul-2019	CCC-/Negative/--
13-Mar-2019	BB-/Stable/--

EP Energy LLC

- US$1 billion 7.75% notes due May 15, 2026

- US$1 billion 8.00% notes due Feb. 15, 2025

- US$500 million 8.00% senior notes due Nov. 29, 2024

- US$800 million 6.375% notes due June 15, 2023

- US$350 million 7.75% senior unsecured notes due Sept. 1, 2022

- US$2 billion 9.375% senior unsecured notes due May 1, 2020

- Reserve-based revolver due Nov. 23, 2021

On Sept. 17, 2019, S&P Global Ratings lowered its issuer credit rating on Houston-based EP Energy LLC to 'D' from 'CC' as the company failed to make a $40 million interest payment on its 1.5-lien senior secured notes due 2025, which constituted an event of default under the bond indenture and the credit agreement. The company failed to make the interest payment before the 30-day grace period expired because active discussions with some of the company's creditors were ongoing regarding its evaluation of strategic alternatives.

Table 114

Issuer Credit Rating--EP Energy LLC

Date	To
17-Sep-2019	D/--/--
16-Aug-2019	CC/Negative/--
09-Apr-2019	CCC-/Negative/--
08-Jan-2018	CCC+/Negative/--
21-Dec-2017	SD/NM/--
21-Nov-2017	CC/Negative/--
27-Jun-2017	CCC+/Negative/--
16-Jun-2017	B-/Negative/--
03-Jun-2016	B/Negative/--
09-Feb-2016	B/Stable/--

Table 114

Issuer Credit Rating--EP Energy LLC (cont.)

Date	To
08-Jun-2012	BB-/Stable/--

Thomas Cook Group PLC

- EUR400 million 3.875% notes due July 15, 2023

- EUR750 million 6.25% notes due June 15, 2022

On Sept. 24, 2019, S&P Global Ratings lowered its issuer credit rating on U.K.-based tour operator Thomas Cook Group PLC to 'D' from 'CC' as the company entered into liquidation after the group failed to reach an agreement with its main stakeholders to restructure. Following the liquidation announcement, we revised our approach to calculating debt recoveries from a going concern to a discrete asset valuation, implying lower estimated recoveries.

Later, on Oct. 23, 2019, we withdrew our issuer credit rating on Thomas Cook at the company's request.

Table 115

Issuer Credit Rating--Thomas Cook Group PLC

Date	To
23-Oct-2019	NR/--/--
24-Sep-2019	D/--/--
12-Jul-2019	CC/Negative/--
22-May-2019	CCC+/Negative/--
2-May-2019	B-/Watch Neg/--
19-Feb-2019	B/Negative/--
29-Nov-2018	B+/Negative/--
18-Jan-2018	B+/Stable/--
15-Feb-2017	B/Positive/--
30-Apr-2015	B/Stable/--
16-Apr-2014	B/Positive/--
4-Jul-2013	B/Stable/--
16-May-2013	B-/Watch Pos/--
6-Jul-2012	B-/Negative/--
25-Nov-2011	B/Negative/--
19-Jul-2011	BB-/Negative/--
29-Mar-2011	BB-/Stable/--

Premiere Global Services Inc.

- US$665 million term loan bank loan due Dec. 8, 2021

- US$50 million revolver bank loan due Dec. 8, 2021

On Sept. 27, 2019, S&P Global Ratings lowered its issuer credit rating on Atlanta-based audio conference service provider Premiere Global Services Inc. to 'D' from 'CCC-' following the company's proposed amendment with its lender group that would push out the maturities of each of its debt tranches by two years, reduce the amortization requirements on its senior secured first-lien term loan, and allow the second-lien term loan to pay in kind.

Subsequently, on Oct. 11, 2019, we raised our issuer credit rating on the company to 'CCC+' from 'D'. The upgrade followed our review of the company's credit profile subsequent to the execution of its agreement to amend its first- and second-lien facilities.

Table 116

Issuer Credit Rating--Premiere Global Services Inc.

Date	To
11-Oct-2019	CCC+/Negative/--
27-Sep-2019	SD/NM/--
28-Dec-2018	CCC-/Negative/--
08-Oct-2018	CCC+/Negative/--
25-Apr-2018	B-/Negative/--
31-Oct-2017	B/Negative/--
18-Nov-2016	B/Stable/--
28-Jan-2016	B/Negative/--

Acosta Inc.

- US$33.5 million nonextending RCF bank loan due Sept. 26, 2019

- US$800 million 7.75% senior notes due Oct. 1, 2022

- US$2.065 billion term B-1 bank loan due Sept. 26, 2019

- US$143.4 million revolver bank loan due June 25, 2021

On Oct. 2, 2019, S&P Global Ratings lowered its issuer credit rating on Florida-based outsourced sales and marketing services company Acosta Inc. to 'SD' from 'CCC' after the company entered into a forbearance agreement with its extended revolver and term loan lenders.

Later, on Nov. 15, 2019, we downgraded the company to 'D' after it elected to miss interest payments on its term loan B and extended revolver that were due Oct. 31, 2019, and entered into a restructuring support agreement with creditors accounting for the majority of its bank and bond commitments.

Table 117

Issuer Credit Rating--Acosta Inc.

Date	To
15-Nov-2019	D/--/--
02-Oct-2019	SD/NM/--
07-Feb-2019	CCC/Negative/--
22-Mar-2018	CCC+/Negative/--
28-Sep-2017	B-/Negative/--
01-Dec-2016	B/Negative/--
06-Aug-2014	B/Stable/--
29-Jul-2014	B+/Watch Neg/--
10-Mar-2011	B+/Stable/--

Syncreon Group Holdings B.V.

- US$225 million second-out term bank loan due April 1, 2025

- US$125.5 million first-out term bank loan due Oct. 1, 2024

- US$225 million 8.625% senior unsecured notes due Nov. 1, 2024

- US$525 million term bank loan due Dec. 31, 2020

- US$100 million floating-rate RCF bank loan due Oct. 28, 2020

On Oct. 2, 2019, U.S.-based logistics services provider Syncreon Group Holdings B.V. announced it had exchanged $679 million senior secured debt for $225 million of newly issued first-lien, second-out term loan claims, 80% of reorganized equity of the company. As a result, S&P Global Ratings lowered its issuer credit rating on the company to 'SD' from 'CC', viewing this debt exchange as tantamount to default.

Earlier, on May 24, 2019, we had lowered our issuer credit rating on the company to 'CC' from 'CCC-' when the company made the initial offer for the above debt exchange.

Later, on Oct. 4, 2019, we raised our issuer credit rating on the company to 'CCC+' from 'SD' upon successful completion of the exchange.

Table 118

Issuer Credit Rating--Syncreon Group Holdings B.V.

Date	To
04-Oct-2019	CCC+/Stable/--
02-Oct-2019	SD/NM/--
24-May-2019	CC/Watch Neg/--
29-Mar-2019	CCC-/Negative/--
28-Mar-2018	CCC+/Stable/--
02-Jun-2015	B-/Stable/--
30-Sep-2013	B/Stable/--

Deluxe Entertainment Services Group Inc.

- US$805 million first-lien term bank loan due Feb. 28, 2020

- US$75 million nonterm bank loan due Feb. 28, 2020

- US$73 million delayed draw term bank loan due Feb. 27, 2020

- US$115 million first-lien asset-based revolver due Nov. 20, 2019

On Oct. 3, 2019, S&P Global Ratings lowered its issuer credit rating on Delaware-based media and entertainment services company Deluxe Entertainment Services Group Inc. to 'D' from 'CC' following its filing for Chapter 11 protection to address its debt-heavy capital structure. Prior to bankruptcy, the company had pursued an out-of-court settlement to reorganize and exchange all of its existing first-lien term loan debt for 100% of the reorganized company.

On Aug. 5, 2019, we had lowered the issuer credit rating on the company to 'CCC-' from 'B-', citing significant refinancing risk. Subsequently, on Sept. 11, 2019, we lowered the rating to 'CC' as the company announced it had entered into a restructuring support agreement with its term loan lenders that would reduce its debt load by more than half the outstanding amount ($782 million due February 2020).

Table 119

Issuer Credit Rating--Deluxe Entertainment Services Group Inc.

Date	To
06-Nov-2019	NR/--/--
03-Oct-2019	D/--/--
10-Sep-2019	CC/Negative/--
05-Aug-2019	CCC-/Negative/--
24-Aug-2018	B-/Watch Neg/--
28-Oct-2015	B-/Stable/--
09-Oct-2014	CCC+/Negative/--
23-Sep-2014	CCC/Watch Pos/--
21-Aug-2014	CCC/Negative/--
10-Feb-2014	B/Stable/--
08-May-2013	CCC/Negative/--
14-Dec-2012	CCC+/Negative/--
20-Sep-2012	B-/Negative/--
31-Jul-2012	B-/Stable/--
06-Jan-2012	B/Stable/--
02-Dec-2011	B-/Watch Dev/--
29-Oct-2009	B-/Stable/--
01-Oct-2009	B-/Watch Pos/--
29-Oct-2008	B-/Stable/--
02-May-2008	B/Negative/--

Table 119

Issuer Credit Rating--Deluxe Entertainment Services Group Inc. (cont.)

Date	To
13-Jan-2006	B/Stable/--

Medical Depot Holdings Inc.

- US$122.5 million first-lien bank loan due Jan. 3, 2023

- US$2.5 million revolver bank loan due Jan. 3, 2023

- US$167 million second-lien bank loan due Jan. 3, 2024

- US$167 million payment-in-kind 1.5-lien term bank loan due July 3, 2023

On Oct. 7, 2019, S&P Global Ratings lowered its issuer credit rating on New York-based medical equipment manufacturer and distributor Medical Depot Holdings Inc. to 'D' from 'CC' after the company completed a financing transaction in which it extended its revolver maturity, suspended first-lien debt amortization for six quarters, and exchanged second-lien debt for new convertible paid-in-kind loans.

Earlier, on Sept. 13, 2019, we had lowered our issuer credit rating on the company to 'CCC' from 'B-', citing cash flow deficits and tightening liquidity. Subsequently, on Sept. 24, 2019, we lowered the rating to 'CC'.

On Oct. 15, 2019, upon completion of the distressed exchange, we raised the issuer credit rating on the company to 'CCC+' from 'D'.

Table 120

Issuer Credit Rating--Medical Depot Holdings Inc.

Date	To
15-Oct-2019	CCC+/Negative/--
07-Oct-2019	D/--/--
23-Sep-2019	CC/Watch Neg/--
12-Sep-2019	CCC/Negative/--
24-Jul-2017	B-/Negative/--
14-Nov-2016	B/Stable/--

Jain Irrigation Systems Ltd.

- US$200 million 7.125% notes due Jan. 23, 2022

On Oct. 15, 2019, S&P Global Ratings lowered its issuer credit rating on Indian microirrigation company Jain Irrigation Systems Ltd. to 'SD' from 'CCC' after the company missed certain principal payments under its working capital facilities.

Earlier, on June 20, 2019, we had lowered our issuer credit rating on the company to 'B-' from 'B+',

citing tight liquidity and operational risks. Subsequently, on July 26, 2019, we lowered the rating to 'CCC'.

Table 121

Issuer Credit Rating--Jain Irrigation Systems Ltd.

Date	To
14-Oct-2019	SD/NM/--
26-Jul-2019	CCC/Watch Neg/--
20-Jun-2019	B-/Watch Neg/--
07-Apr-2017	B+/Stable/--

Rite Aid Corp.

- US$300 million 7.70% debentures due Feb. 15, 2027

- US$150 million 6.875% debentures due Dec. 15, 2028

- US$1.8 billion 6.125% senior notes due April 1, 2023

- US$2.7 billion revolving bank loan due Dec. 31, 2023

- US$450 million term bank loan due Dec. 31, 2023

On Oct. 15, 2019, S&P Global Ratings lowered its issuer credit rating on Pennsylvania-based retail drug store chain Rite Aid Corp. to 'SD' from 'B-' after the company repurchased $84 million of the aggregate principal of its outstanding 2027 and 2028 unsecured notes at approximately 39% below par.

Earlier, on April 26, 2019, we had lowered our issuer credit rating on the company to 'B-' from 'B', citing industry headwinds.

On Oct. 23, 2019, upon completion of the debt repurchase, we raised the issuer credit rating on the company to 'CCC+' from 'SD'.

Table 122

Issuer Credit Rating--Rite Aid Corp.

Date	To
22-Oct-2019	CCC+/Stable/--
15-Oct-2019	SD/NM/--
26-Apr-2019	B-/Negative/--
13-Aug-2018	B/Negative/--
19-Oct-2017	B/Stable/--
28-Oct-2015	B/Watch Pos/--
19-Mar-2015	B/Positive/--
30-Sep-2013	B/Stable/--
14-Jul-2009	B-/Stable/--
16-Oct-2008	B-/Negative/--

Table 122

Issuer Credit Rating--Rite Aid Corp. (cont.)

Date	To
10-Jan-2008	B/Negative/--
08-May-2007	B/Stable/--
24-Aug-2006	B+/Watch Neg/--
12-Aug-2005	B+/Negative/--
23-Apr-2003	B+/Stable/--
14-Apr-2003	B/Watch Pos/--
09-May-2001	B/Positive/--
12-Jul-2000	B/Negative/--
24-May-2000	B/Developing/--
22-May-2000	B/Watch Neg/--
13-Jan-2000	B/Developing/--
22-Oct-1999	BB/Watch Neg/--
07-Oct-1999	BBB-/Watch Neg/--
22-Sep-1999	BBB/Watch Neg/--
14-Jun-1999	BBB/Stable/--
08-Apr-1999	BBB+/Watch Neg/--
22-Jul-1997	BBB+/Negative/--
30-Apr-1996	BBB+/Stable/--
30-Nov-1995	A-/Watch Neg/--
05-Apr-1995	A-/Stable/--
07-Feb-1994	A-/Negative/--
17-Oct-1990	A/Watch Neg/--
16-Oct-1990	A+/Stable/--
31-Mar-1988	A+/Negative/--
23-Oct-1984	A+/-/--
15-Feb-1978	A/-/--

CDR HRB Holdings Inc.

- US$250 million 8.875% senior notes due March 15, 2025

On Oct. 17, 2019, S&P Global Ratings lowered its issuer credit ratings on U.S.-based High Ridge Brands Co. and parent CDR HRB Holdings Inc. to 'D' from 'CCC-' after the company executed forbearance agreements with most of its debtholders prior to skipping the semiannual interest payment due on its $250 million 8.875% senior unsecured notes maturing March 15, 2025, and the principal and interest payments due on its unrated senior secured bank credit facility.

Earlier, on May 2, 2019, we had lowered our issuer credit rating on the company to 'CCC-' from

'CCC', citing an apparently unsustainable capital structure.

Later, on Nov. 18, 2019, we withdrew our issuer credit rating on the company.

Table 123

Issuer Credit Rating--CDR HRB Holdings Inc.

Date	To
18-Nov-2019	NR/--/--
17-Oct-2019	D/--/--
02-May-2019	CCC-/Negative/--
24-May-2018	CCC/Negative/--
29-Nov-2017	B-/Negative/--
25-May-2017	B/Negative/--
13-Mar-2017	B/Stable/--

Dura Automotive Systems LLC

On Oct. 17, 2019, Delaware-based automotive parts supplier Dura Automotive Systems LLC filed for Chapter 11.

This company has not been rated since April 5, 2007, when S&P Global Ratings withdrew its ratings on the company at its request.

Table 124

Issuer Credit Rating--Dura Automotive Systems LLC

Date	To
05-Apr-2007	NR/--/--
16-Oct-2006	D/--/--
28-Jul-2006	CCC/Negative/--
09-Feb-2006	B-/Negative/--
18-Mar-2005	B/Negative/--
02-Nov-2004	B+/Negative/--
15-Sep-2004	BB-/Watch Neg/--
16-Oct-2003	BB-/Negative/--
09-Apr-1999	BB-/Stable/--

Destination Maternity Corp.

On Oct. 21, 2019, Philadelphia-based Destination Maternity Corp. filed for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court for the District of Delaware.

On Dec. 6, 2012, S&P Global Ratings had withdrawn all ratings on the company at its request, including the 'B+' corporate credit rating and 'BB' term loan rating.

Table 125

Issuer Credit Rating--Destination Maternity Corp.

Date	To
06-Dec-2012	NR/--/--
12-Aug-2011	B+/Stable/--
10-Feb-2010	B/Stable/--
26-Aug-2009	B-/Positive/--
12-Jan-2009	B-/Stable/--
21-May-2008	B-/Negative/--
27-Nov-2007	B/Negative/--
29-Aug-2007	B/Stable/--
14-Dec-2006	B/Positive/--
19-May-2006	B-/Positive/--
10-Oct-2005	B-/Negative/--
29-Nov-2004	B/Negative/--
03-Sep-2004	B+/Negative/--
14-Apr-2004	B+/Stable/--
26-Jun-2002	B+/Positive/--
27-Feb-2001	B+/Stable/--
04-Mar-1999	B/Positive/--
23-Apr-1997	B/Negative/--
15-Oct-1996	B+/Watch Neg/--
17-Jul-1995	B+/Negative/--

Foresight Energy L.P.

- US$825 million first-lien term bank loan due March 28, 2022

- US$170 million revolver bank loan due March 26, 2021

- US$425 million 11.50% second-lien notes due April 1, 2023

On Oct. 31, 2019, S&P Global Ratings lowered its issuer credit rating on Florida-based coal company Foresight Energy L.P. to 'SD' from 'CCC-' after the company missed an interest payment on its 11.50% second-lien senior secured notes due 2023 within the 30-day grace period, which expired on Oct. 31, 2019.

Earlier, on June 21, 2019, we had lowered our issuer credit rating on the company to 'CCC+' from 'B-', reflecting our view of a possible impending distressed exchange. Subsequently, on Oct. 2, 2019, we lowered the rating to 'CCC-'.

Table 126

Issuer Credit Rating--Foresight Energy L.P.

Date	To
31-Oct-2019	SD/NM/--
02-Oct-2019	CCC-/Watch Neg/--
20-Jun-2019	CCC+/Negative/--
01-Mar-2017	B-/Stable/--
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/--

Hovnanian Enterprises Inc.

- US$212.5 million 5.00% term bank loan due Jan. 29, 2027

- US$90.59 million 13.50% notes due Feb. 1, 2026

- US$90.12 million 5.00% notes due Feb. 1, 2040

- US$400 million 10.50% senior secured notes due July 15, 2024

- US$440 million 10.00% senior secured notes due July 15, 2022

- US$75 million 9.50% first-lien notes due Nov. 15, 2020

- US$250 million 8.00% notes due Nov. 1, 2019

- US$53.2 million 2.00% notes due Nov. 1, 2021

- US$141.8 million 5.00% notes due Nov. 1, 2021

On Nov. 6, 2019, S&P Global Ratings lowered its issuer credit ratings on New Jersey-based residential homebuilder Hovnanian Enterprises Inc. and its wholly owned subsidiary, K. Hovnanian Enterprises Inc., to 'SD' from 'CCC+' after the companies completed a debt exchange whereby holders of the 10.5% senior secured notes partially exchanged the debt for 7.75% 1.125-lien notes, 11.25% 1.5-lien notes, and cash--an exchange we viewed as distressed.

Table 127

Issuer Credit Rating--Hovnanian Enterprises Inc.

Date	To
06-Nov-2019	SD/NM/--

Table 127

Issuer Credit Rating--Hovnanian Enterprises Inc. (cont.)

Date	To
06-Jul-2018	CCC+/Negative/--
06-Apr-2018	CC/Negative/--
06-Feb-2018	CCC+/Stable/--
30-Jan-2018	SD/NM/--
08-Jan-2018	CC/Watch Neg/--
03-May-2016	CCC+/Negative/--
23-Apr-2013	B-/Stable/--
05-Nov-2012	CCC+/Stable/--
19-Sep-2012	CCC-/Watch Pos/--
27-Jul-2012	CCC-/Positive/--
03-Nov-2011	CCC-/Negative/--
02-Nov-2011	SD/NM/--
05-Oct-2011	CC/Negative/--
28-Jun-2011	CCC/Negative/--
14-Sep-2010	CCC+/Negative/--
05-Oct-2009	CCC+/Developing/--
01-Apr-2009	CCC/Negative/--
04-Mar-2009	B-/Watch Neg/--
05-Dec-2008	B-/Negative/--
05-Dec-2008	SD/NM/--
30-Oct-2008	B-/Watch Neg/--
15-Feb-2008	B-/Negative/--
16-Jan-2008	B+/Watch Neg/--
21-Nov-2007	B+/Negative/--
15-Aug-2007	BB-/Negative/--
24-May-2007	BB/Negative/--
10-Nov-2006	BB/Stable/--
28-Apr-2004	BB/Positive/--
01-May-2003	BB/Stable/--
06-Mar-2003	BB-/Positive/--
14-Apr-1998	BB-/Stable/--
03-Apr-1998	BB-/Negative/--

Dean Foods Co.

- US$700 million 6.50% senior notes due March 15, 2023

On Nov. 12, 2019, S&P Global Ratings lowered its issuer credit rating on Texas-based food and beverage company Dean Foods Co. to 'SD' from 'CCC-' after the company filed voluntary petitions for reorganization under Chapter 11 of the U.S. Bankruptcy Code.

Earlier, on Feb. 1, 2019, we had lowered our issuer credit rating on the company to 'B-' from 'B+' after the company announced that it was in discussions to refinance its revolving credit facility following an agreement with its receivable purchase agreement lender to waive the financial covenant requiring Dean Foods to maintain a total net leverage ratio below 4.25x for the period ended Dec. 31, 2018. Subsequently, on March 5, 2019, we lowered the rating to 'CCC+'.

Table 128

Issuer Credit Rating--Dean Foods Co.

Date	To
12-Nov-2019	D/--/--
05-Mar-2019	CCC+/Negative/--
01-Feb-2019	B-/Watch Neg/--
21-Nov-2018	B+/Negative/--
09-Nov-2017	BB-/Stable/--
10-May-2017	BB/Stable/--
14-Mar-2016	BB-/Positive/--
23-Jul-2014	BB-/Stable/--
10-Aug-2012	B+/Positive/--
20-Mar-2012	B+/Stable/--
22-Feb-2011	B+/Negative/--
09-Dec-2010	B+/Stable/--
02-Dec-2010	B+/Negative/--
13-May-2010	BB-/Negative/--
08-May-2009	BB-/Stable/--
23-Dec-2008	BB-/Negative/--
19-Jun-2008	BB-/Watch Neg/--
03-Oct-2007	BB-/Negative/--
27-Aug-2007	BB/Negative/--
02-Mar-2007	BB/Stable/--
04-Nov-2005	BB+/Stable/--
22-Jul-2003	BB+/Positive/--
02-Jun-2003	BB+/Watch Pos/--
06-Nov-2002	BB+/Stable/--
05-Apr-2001	BB+/Negative/--
08-Nov-1999	BB+/Stable/--
08-Nov-1999	BB+/NM/--
22-Sep-1999	BB+/Watch Neg/--
18-Mar-1998	BB+/Stable/--

APC Automotive Technologies Intermediate Holdings LLC

- US$25 million A-1 term bank loan due May 31, 2025

- US$143 million B term bank loan due May 31, 2024

- US$25 million A-3 term bank loan due May 31, 2025

- US$155 million A-2 term bank loan due May 31, 2025

- US$315 million floating-rate first-lien term bank loan due May 10, 2024

On Nov. 12, 2019, S&P Global Ratings lowered its issuer credit rating on Colorado-based auto part manufacturer APC Automotive Technologies Intermediate Holdings LLC to 'SD' from 'CC' after the company completed an exchange offer for its first-lien term loan, exchanging the existing 2024 loan for a mix of longer-tenor term loans A and a term loan B.

Earlier, on Sept. 18, 2019, we had lowered our issuer credit rating on the company to 'CCC' from 'CCC+' after the company reported second-quarter results that showed continuing margin declines, negative free cash flow, and a larger-than-expected draw on its asset-backed lending facility revolver. Subsequently, on Nov. 5, 2019, we lowered the rating to 'CC'.

On Nov. 19, 2019, upon completion of the exchange offer for the first-lien term loan, S&P Global Ratings raised the issuer credit rating on the company to 'CCC' from 'SD'.

Table 129

Issuer Credit Rating--APC Automotive Technologies Intermediate Holdings LLC

Date	To
18-Nov-2019	CCC/Negative/--
13-Nov-2019	SD/NM/--
05-Nov-2019	CC/Negative/--
18-Sep-2019	CCC/Negative/--
14-May-2019	CCC+/Negative/--
12-Dec-2018	CCC+/Developing/--
01-Jun-2018	B-/Negative/--
24-Apr-2017	B/Stable/--

IPC Corp.

- US$132.052 million floating-rate lien term bank loan due Aug. 6, 2021

- US$293 million floating-rate term bank loan due Aug. 6, 2021

- EUR29 million notes due Aug. 6, 2021

- GBP66 million notes due Aug. 6, 2021

- US$610 million first-lien term bank loan due Aug. 6, 2021

- US$305 million floating-rate second-lien bank loan due Feb. 6, 2022

- US$25 million floating-rate revolver bank loan due Feb. 6, 2020

On Nov. 14, 2019, S&P Global Ratings lowered its issuer credit rating on New Jersey-based global trading communication systems, compliance solutions, and network services provider IPC Corp. to 'SD' from 'CC' as the company executed an amendment with its second-lien lenders.

Earlier, on Jan. 15, 2019, we had lowered our issuer credit rating on the company to 'CCC+' from 'B-' after the company's operating and financial performance continued to decline. Subsequently, on July 3, 2019, we lowered the rating to 'CC'.

On Nov. 27, 2019, upon completion of the exchange offer for the first-lien term loan, S&P Global Ratings raised the issuer credit rating on the company to 'CCC+' from 'SD'.

Table 130

Issuer Credit Rating--IPC Corp.

Date	To
26-Nov-2019	CCC+/Negative/--
14-Nov-2019	SD/NM/--
03-Jul-2019	CC/Watch Neg/--
14-Jan-2019	CCC+/Negative/--
19-Mar-2018	B-/Stable/--
12-Jun-2017	B-/Negative/--
23-Feb-2017	B/Watch Neg/--
07-Jan-2015	B/Stable/--

Approach Resources Inc.

- US$325 million term first-lien guaranteed senior secured due May 7, 2020

- US$250 million 7.00% senior unsecured notes due June 15, 2021

On Oct. 21, 2019, Fort Worth, Texas-based exploration and production company Approach Resources Inc. initiated proceedings for its bankruptcy filing under Chapter 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of Texas.

On May 31, 2017, S&P Global Ratings had withdrawn the corporate credit and debt ratings on Approach Resources Inc. at the company's request.

Table 131

Issuer Credit Rating--Approach Resources Inc.

Date	To
30-May-2017	NR/--/--
25-Apr-2017	CCC+/Stable/--
27-Jan-2017	SD/NM/--
03-Nov-2016	CC/Negative/--
09-Feb-2016	CCC+/Negative/--
03-Jun-2013	B/Stable/--

Bumble Bee Parent Inc.

On Nov. 21, 2019, California-based seafood products company Bumble Bee Parent Inc. filed for Chapter 11.

This company has not been rated since Sept. 15, 2017, when S&P Global Ratings withdrew its 'CCC+' corporate credit rating on the company upon repayment of the existing notes after the company's bondholder notice period.

Table 132

Issuer Credit Rating--Bumble Bee Parent Inc.

Date	To
15-Sep-2017	NR/--/--
21-Aug-2017	CCC+/Stable/--
07-Mar-2017	CCC/Negative/--
15-Nov-2016	B-/Watch Neg/--
07-Mar-2011	B/Stable/--
01-Dec-2010	B+/Negative/--
06-Aug-2010	B+/Watch Neg/--
04-Dec-2009	B+/Stable/--

AAC Holdings Inc.

- US$55 million floating-rate revolver bank loan due June 30, 2022

- US$275 million floating-rate term B bank loan due June 30, 2022

- US$30 million term first-lien guaranteed senior secured due April 15, 2020

On Nov. 25, 2019, S&P Global Ratings lowered its issuer credit rating on Nevada-based substance use treatment service provider AAC Holdings Inc. to 'SD' from 'CCC' after the company's third-quarter reports indicated it failed to make the mandatory $3.4 million debt amortization payment due Sept. 30, 2019.

Earlier, on March 15, 2019, we had lowered our issuer credit rating on the company to 'CCC' from 'B-' on higher risk of a debt restructuring.

Table 133

Issuer Credit Rating--AAC Holdings Inc.

Date	To
25-Nov-2019	SD/NM/--
15-Mar-2019	CCC/Negative/--
09-Nov-2018	B-/Negative/--
06-Jun-2017	B-/Positive/--

Community Health Systems Inc.

- US$699.924 million 8.00% senior notes due Dec. 15, 2027

- US$1.7 billion 6.875% senior notes due April 1, 2028

- US$2.08 billion 8.00% notes due Dec. 31, 2016

- US$1.027 billion 8.125% notes due Dec. 31, 2024

- US$1.77 billion junior-priority notes due June 30, 2023

- US$1.355 billion 8.125% junior-priority notes due June 30, 2024

- US$2 billion 8.00% senior notes due Nov. 15, 2019

- US$3.1 billion 6.25% senior notes due March 31, 2023

- US$1 billion term G bank loan due Dec. 31, 2019

- US$3.5 billion term H bank loan due Jan. 27, 2021

- US$3 billion 6.875% senior unsecured notes due Feb. 1, 2022

- US$1 billion 5.125% senior secured notes due Aug. 1, 2021

- US$1.2 billion 7.125% senior unsecured notes due July 15, 2020

On Nov. 25, 2019, S&P Global Ratings lowered its issuer credit rating on Tennessee-based health care services provider Community Health Systems Inc. to 'SD' from 'CC' after the company completed new debt offerings to exchange unsecured notes due 2022 for new senior secured notes due 2027 and new unsecured notes due 2028.

Earlier, on Oct. 31, 2019, we had lowered our issuer credit rating on the company to 'CC' from 'CCC+' after the company announced a proposed exchange offer for its unsecured notes due 2022, offering to exchange the existing 2022 notes for a mix of new senior secured and senior unsecured notes of longer tenor.

On Nov. 27, 2019, upon completion of the distressed exchange that addressed most of its debt due in 2022, S&P Global Ratings raised the issuer credit rating on the company to 'CCC+' from 'SD'.

Table 134

Issuer Credit Rating--Community Health Systems Inc.

Date	To
27-Nov-2019	CCC+/Negative/--
25-Nov-2019	SD/NM/--
31-Oct-2019	CC/Negative/--
28-Jun-2018	CCC+/Negative/--
26-Jun-2018	SD/NM/--
21-Jun-2018	CC/Negative/--
09-May-2018	CCC-/Watch Neg/--
14-Mar-2018	CCC+/Negative/--
04-Aug-2017	B-/Stable/--
31-Oct-2016	B/Negative/--

Table 134

Issuer Credit Rating--Community Health Systems Inc. (cont.)

Date	To
08-Aug-2016	B/Stable/--
09-Nov-2015	B+/Negative/--
29-Jan-2015	B+/Stable/--
31-Jul-2013	B+/Negative/--
26-Jul-2007	B+/Stable/--
20-Mar-2007	BB-/Watch Neg/--
15-Dec-2006	BB-/Stable/--
22-Sep-2005	BB-/Positive/--
20-Jun-2002	BB-/Stable/--
28-Sep-2001	B+/Stable/--

Shandong Yuhuang Chemical Co. Ltd.

- US$300 million 6.625% notes due March 27, 2020

- CNY500 million 7.00% unsecured notes due Dec. 12, 2021

- CNY500 million 6.00% unsecured notes due Nov. 21, 2021

On Nov. 29, 2019, S&P Global Ratings lowered its issuer credit rating on Chinese chemical products company Shandong Yuhuang Chemical Co. Ltd. to 'D' from 'CC' after the company failed to repay its RMB500 million onshore bond within a five-business-day imputed grace period.

Earlier, on June 14, 2019, we had lowered our issuer credit rating on the company to 'B-' from 'B+' owing to high refinancing and liquidity risks. Subsequently, on Sept. 5, 2019, we lowered the rating to 'CCC+', and on Nov. 22, 2019, we lowered the rating to 'CC'.

Later, on Jan. 9, 2020, S&P Global Ratings withdrew its issuer credit rating on the company.

Table 135

Issuer Credit Rating--Shandong Yuhuang Chemical Co. Ltd.

Date	To
29-Nov-2019	D/--/--
22-Nov-2019	CC/Negative/--
05-Sep-2019	CCC+/Watch Neg/--
14-Jun-2019	B-/Negative/--
26-Jun-2018	B+/Negative/--
14-Mar-2017	B+/Stable/--

McDermott International Inc.

- US$2.26 billion floating-rate term bank loan due May 10, 2025

- US$1.3 billion 10.625% senior notes due May 1, 2024

- US$1.3 billion term bank loan due Oct. 21, 2021

On Dec. 3, 2019, S&P Global Ratings lowered its issuer credit rating on Panama-based engineering and construction provider McDermott International Inc. to 'SD from 'CC' after the company announced that it entered into a forbearance agreement with 35% of the holders of its unsecured notes due in 2024, related to a missed interest payment due Nov. 1, 2019.

Earlier, on March 7, 2019, we had lowered our issuer credit rating on the company to 'B' from 'B+' owing to greater-than-expected project losses. Subsequently, on Aug. 6, 2019, we lowered the rating to 'B-', owing to greater-than-expected cash outflows, and then, on Nov. 22, we lowered the rating to 'CCC' upon the company's hiring of external advisers to evaluate opportunities for changes to its capital structure. On Oct. 28, 2019, we lowered the rating to 'CC' on a potential distressed exchange.

Table 136

Issuer Credit Rating--McDermott International Inc.

Date	To
03-Dec-2019	SD/NM/--
28-Oct-2019	CC/Negative/--
20-Sep-2019	CCC/Watch Dev/--
06-Aug-2019	B-/Negative/--
06-Mar-2019	B/Negative/--
09-Nov-2018	B+/Negative/--
14-May-2018	B+/Stable/--
19-Dec-2017	B+/Watch Neg/--
12-Jul-2017	B+/Positive/--
26-Nov-2014	B+/Stable/--
03-Apr-2014	BB-/Negative/--
17-Mar-2014	BB/Negative/--
30-Mar-2010	BB/Stable/--
09-Dec-2009	BB+/Watch Neg/--
28-May-2008	BB+/Positive/--
24-May-2007	BB/Stable/--
09-May-2006	B+/Positive/--
01-Dec-2005	B+/Stable/--
27-Sep-2005	B-/Watch Pos/--
19-Mar-2004	B-/Stable/--
17-Oct-2003	CCC+/Watch Pos/--
07-Apr-2003	CCC+/Negative/--

Table 136

Issuer Credit Rating--McDermott International Inc. (cont.)

Date	To
07-Nov-2002	B/Watch Neg/--
08-Aug-2002	B/Negative/--
10-Jun-2002	B/Developing/--
20-Dec-2000	B/Watch Neg/--
22-Feb-2000	BB+/Watch Neg/--
21-Sep-1999	BBB-/Stable/--

Indra Holdings Corp.

- US$245 million floating-rate first-lien bank loan due 2021

On Dec. 4, 2019, S&P Global Ratings lowered its issuer credit rating on Ohio-based apparel and accessories manufacturer Indra Holdings Corp. to 'D' from 'CCC' after the company did not make the Oct. 31, 2019, interest and principal payments on its first- and second-lien term loans because it entered into a restructuring support agreement with its current lenders to right-size its capital structure.

Earlier, on May 13, 2019, we had lowered our issuer credit rating on the company to 'CCC' from 'CCC+' on deteriorating liquidity.

On Dec. 4, 2019, S&P Global Ratings withdrew its issuer credit rating on the company.

Table 137

Issuer Credit Rating - Indra Holdings Corp.

Date	To
04-Dec-2019	NR/--/--
04-Dec-2019	D/--/--
13-May-2019	CCC/Negative/--
02-Nov-2017	CCC+/Negative/--
10-Jan-2017	CCC+/Stable/--
29-May-2015	B-/Stable/--
15-Apr-2014	B/Stable/--

Mallinckrodt PLC

- US$600 million 4.75% senior unsecured notes due April 15, 2023

- US$900 million floating-rate revolving facility bank loan due March 19, 2022

- US$750 million 5.625% notes due Oct. 15, 2023

- US$1.862 billion term B bank loan due Sept. 24, 2024

- US$600 million floating rate term bank loan due Feb. 24, 2025

- US$900 million 5.75% unsecured notes due Aug. 1, 2022

- US$700 million 4.875% senior notes due April 15, 2020

- US$700 million 5.50% senior notes due April 15, 2025

On Dec. 6, 2019, S&P Global Ratings lowered its issuer credit rating on U.K.-based specialty pharmaceutical manufacturer Mallinckrodt PLC to 'SD' from 'CC' after the company completed its limited offer to exchange various series of its unsecured notes maturing between 2020 and 2025 for a lesser principal of new 10% second-lien notes due in 2025.

Earlier, on Sept. 11, 2019, we had lowered our issuer credit rating on the company to 'CCC' from 'B+' owing to increased risk of a distressed exchange. Subsequently, on Nov. 5, 2019, we lowered the rating to 'CC' on exchange offers.

On Dec. 10, 2019, upon completion of the distressed exchange that swapped $706 million of various unsecured notes for $323 million of new 10% second-lien notes due 2025 (not rated), S&P Global Ratings raised the issuer credit rating on the company to 'CCC' from 'SD'.

Table 138

Issuer Credit Rating - Mallinckrodt PLC

Date	To
10-Dec-2019	CCC/Negative/--
06-Dec-2019	SD/NM/--
05-Nov-2019	CC/Watch Neg/--
11-Sep-2019	CCC/Negative/--
15-Jul-2019	B+/Negative/--
07-Dec-2018	B+/Watch Neg/--
14-May-2018	B+/Stable/--
25-Jan-2018	BB-/Negative/--
29-Dec-2017	BB-/Watch Neg/--
25-Jan-2016	BB-/Stable/--
11-Aug-2015	BB-/Negative/--
20-Feb-2014	BB-/Stable/--
11-Feb-2014	BBB-/Watch Neg/--
18-Mar-2013	BBB-/Stable/--

Tapstone Energy LLC

- US$300 million 9.75% senior notes due June 1, 2022

On Dec. 6, 2019, S&P Global Ratings lowered its issuer credit rating on Oklahoma-based oil and gas exploration and production company Tapstone Energy LLC to 'D' from 'CCC+' after the company elected to use the 30-day grace period expiring Jan. 1, 2020, for the coupon payment on its 9.75% senior unsecured notes due 2022.

Earlier, on April 26, 2019, S&P Global Ratings had lowered its issuer credit rating on the company to 'CCC+' from 'B-' on free cash flow outspend and liquidity constraints.

Table 139

Issuer Credit Rating--Tapstone Energy LLC

Date	To
10-Dec-2019	D/--/--
26-Apr-2019	CCC+/Negative/--
26-Apr-2018	B-/Stable/--
03-May-2017	B-/Positive/--

4L Technologies Inc.

- US$760 million floating-rate term bank loan due May 8, 2020

On Dec. 12, 2019, S&P Global Ratings lowered its issuer credit rating on Illinois-based imaging supplies remanufacturer 4L Technologies Inc. to 'D' from 'CCC' after the company entered into a restructuring support agreement with a group of lenders holding more than 67% of its long-term debt, expected to be implemented through a prepackaged Chapter 11 bankruptcy filing. On Dec. 16, 2019, the company filed a voluntary petition for reorganization under Chapter 11 in the U.S. Bankruptcy Court for the District of Delaware.

Earlier, on March 21, 2019, we had raised our issuer credit rating on the company to 'CCC+' from 'B-' on debt reduction and senior secured credit facilities extension. Subsequently, on July 17, 2019, we lowered the rating to 'CCC' on likely debt restructuring.

Table 140

Issuer Credit Rating--4L Technologies Inc.

Date	To
12-Dec-2019	D/--/--
16-Jul-2019	CCC/Watch Neg/--
21-Mar-2019	B/Stable/--
06-Oct-2017	B-/Stable/--
26-Oct-2016	B/Stable/--
12-Dec-2014	B+/Negative/--
03-Apr-2014	B+/Stable/--

PizzaExpress Financing 1 PLC

- GBP20 million floating-rate bank loan due July 31, 2020

- GBP465 million 6.625% notes due Aug. 1, 2021

- GBP200 million 8.625% notes due Aug. 1, 2022

On Dec. 13, 2019, S&P Global Ratings lowered its issuer credit rating on U.K.-based pizza chain

PizzaExpress Financing 1 PLC to 'SD' from 'CCC-' after Hony Capital completed the purchase of 36% of PizzaExpress' senior unsecured notes at a price of GBP400 per GBP1,000 in aggregate principal.

Earlier, on Nov. 11, 2019, we had lowered our issuer credit rating on the company to 'CCC-' from 'CCC+' on potential restructuring.

On Dec. 17, 2019, upon completion of the distressed exchange, S&P Global Ratings raised the issuer credit rating on the company to 'CCC-' from 'SD'.

Table 141

Issuer Credit Rating--PizzaExpress Financing 1 PLC

Date	To
17-Dec-2019	CCC-/Negative/--
13-Dec-2019	SD/NM/--
11-Nov-2019	CCC-/Watch Neg/--
24-Sep-2019	CCC+/Negative/--
27-Sep-2018	CCC+/Stable/--
18-Sep-2017	B-/Stable/--
03-Nov-2014	B/Stable/--

Novartex

On Dec. 13, 2019, S&P Global Ratings lowered its issuer credit rating on French apparel retailer Novartex to 'SD' from 'CC' after the company completed a distressed debt exchange for common equity.

Earlier, on July 23, 2019, we had lowered our issuer credit rating on the company to 'CC' from 'CCC' on a likely inability to repay debt due in October.

On Dec. 23, 2019, S&P Global Ratings raised its issuer credit rating on the company to 'B-' from 'SD' following a recapitalization.

Table 142

Issuer Credit Rating--Novartex

Date	To
17-Dec-2019	SD/NM/--
23-Jul-2019	CC/Watch Neg/--
06-Jul-2017	CCC/Stable/--
06-Jun-2017	SD/NM/--
25-Jan-2017	CC/Negative/--
29-Jul-2016	CCC/Negative/--
20-Jan-2015	CCC+/Stable/--

Bank Audi S.A.L.

- US$350 million 6.75% medium-term subordinated note due Oct. 16, 2023

On Dec. 4, 2019, Lebanon's central bank issued a circular requesting banks to pay half of the interest due on U.S. dollar-denominated term deposits in the local currency, Lebanese pounds. This move, following a number of other measures, further limited depositors' access to their funds. S&P Global Ratings viewed these changes as consistent with its definition under its criteria of a restricted default of rated banks in Lebanon. As a result, we lowered the foreign and local currency issuer credit ratings on Bank Audi S.A.L., Blom Bank S.A.L., and Bankmed S.A.L. to 'SD' from 'CCC'.

Earlier, on Nov. 14, 2019, S&P Global Ratings had lowered its issuer credit ratings on the three banks to 'CCC' from 'B-' on rising liquidity pressure.

Table 143

Issuer Credit Rating--Bank Audi S.A.L.

Date	To
18-Dec-2019	SD/NM/--
14-Nov-2019	CCC/Watch Neg/--
28-Oct-2019	B-/Watch Neg/--
05-Mar-2019	B-/Negative/--
06-Sep-2016	B-/Stable/--
16-Sep-2015	B-/Negative/--
17-Apr-2014	B-/Stable/--
06-Nov-2013	B-/Negative/--
30-May-2012	B/Negative/--
19-Jan-2011	B/Stable/--
23-Dec-2009	B/Positive/--
06-Aug-2008	B-/Stable/--
01-Feb-2008	CCC+/Stable/--
27-Nov-2007	B-/Watch Neg/--
12-Sep-2006	B-/Negative/--
14-Jul-2006	B-/Watch Neg/--
10-Oct-2003	B-/Stable/--
24-Apr-2003	B-/Positive/--
19-Dec-2002	B-/Stable/--
10-Apr-2002	B-/Negative/--
28-Sep-2001	B/Negative/--
25-May-2001	B+/Negative/--
18-Sep-2000	B+/Stable/--
07-Jun-2000	BB-/Watch Neg/--
05-Feb-1998	BB-/Negative/--

Table 143

Issuer Credit Rating--Bank Audi S.A.L. (cont.)

Date	To
27-Aug-1997	BB-/Stable/--

Bankmed S.A.L.

On Dec. 4, 2019, Lebanon's central bank issued a circular requesting banks to pay half of the interest due on U.S. dollar-denominated term deposits in the local currency, Lebanese pounds. This move, following a number of other measures, further limited depositors' access to their funds. S&P Global Ratings viewed these changes as consistent with its definition under its criteria of a restricted default of rated banks in Lebanon. As a result, we lowered our foreign and local currency issuer credit ratings on Bank Audi S.A.L., Blom Bank S.A.L., and Bankmed S.A.L. to 'SD' from 'CCC'.

Earlier, on Nov. 14, 2019, S&P Global Ratings had lowered its issuer credit rating on the three banks to 'CCC' from 'B-' on rising liquidity pressure.

Table 144

Issuer Credit Rating--Bankmed S.A.L.

Date	To
18-Dec-2019	SD/NM/--
14-Nov-2019	CCC/Watch Neg/--
28-Oct-2019	B-/Watch Neg/--
05-Mar-2019	B-/Negative/--
06-Sep-2016	B-/Stable/--
16-Sep-2015	B-/Negative/--
17-Apr-2014	B-/Stable/--
06-Nov-2013	B-/Negative/--
30-May-2012	B/Negative/--
19-Jan-2011	B/Stable/--
23-Dec-2009	B/Positive/--
06-Aug-2008	B-/Stable/--
01-Feb-2008	CCC+/Stable/--
27-Nov-2007	B-/Watch Neg/--
12-Sep-2006	B-/Negative/--
14-Jul-2006	B-/Watch Neg/--
10-Oct-2003	B-/Stable/--
24-Apr-2003	B-/Positive/--
19-Dec-2002	B-/Stable/--
10-Apr-2002	B-/Negative/--

Table 144

Issuer Credit Rating--Bankmed S.A.L. (cont.)

Date	To
28-Sep-2001	B/Negative/--
25-May-2001	B+/Negative/--
18-Sep-2000	B+/Stable/--
07-Jun-2000	BB-/Watch Neg/--
05-Feb-1998	BB-/Negative/--
07-Aug-1997	BB-/Stable/--

Blom Bank S.A.L.

- US$300 million 7.5% senior unsecured notes due May 4, 2023

On Dec. 4, 2019, Lebanon's central bank issued a circular requesting banks to pay half of the interest due on U.S. dollar-denominated term deposits in the local currency, Lebanese pounds. This move, following a number of other measures, further limited depositors' access to their funds. S&P Global Ratings viewed these changes as consistent with its definition under its criteria of a restricted default of rated banks in Lebanon. As a result, we lowered our foreign and local currency issuer credit ratings on Bank Audi S.A.L., Blom Bank S.A.L., and Bankmed S.A.L. to 'SD' from 'CCC'.

Earlier, on Nov. 14, 2019, S&P Global Ratings had lowered its issuer credit rating on the three banks to 'CCC' from 'B-' on rising liquidity pressure.

Table 145

Issuer Credit Rating--Blom Bank S.A.L.

Date	To
18-Dec-2019	SD/NM/--
14-Nov-2019	CCC/Watch Neg/--
28-Oct-2019	B-/Watch Neg/--
05-Mar-2019	B-/Negative/--
06-Sep-2016	B-/Stable/--
16-Sep-2015	B-/Negative/--
17-Apr-2014	B-/Stable/--
06-Nov-2013	B-/Negative/--
30-May-2012	B/Negative/--
19-Jan-2011	B/Stable/--
23-Dec-2009	B/Positive/--
06-Aug-2008	B-/Stable/--
01-Feb-2008	CCC+/Stable/--
27-Nov-2007	B-/Watch Neg/--

Table 145

**Issuer Credit Rating--Blom Bank
S.A.L. (cont.)**

Date	To
12-Sep-2006	B-/Negative/--
14-Jul-2006	B-/Watch Neg/--
10-Oct-2003	B-/Stable/--
24-Apr-2003	B-/Positive/--
19-Dec-2002	B-/Stable/--
10-Apr-2002	B-/Negative/--
28-Sep-2001	B/Negative/--
25-May-2001	B+/Negative/--
18-Sep-2000	B+/Stable/--
07-Jun-2000	BB-/Watch Neg/--
05-Feb-1998	BB-/Negative/--
17-Nov-1997	BB-/Stable/--

Related Research

- The Global Recession Is Likely To Push The U.S. Default Rate To 10%, March 19, 2020

- U.S. Recovery Study: Distressed Exchanges Have Boosted Recent Bond Recoveries, Dec. 12, 2019

This report does not constitute a rating action.