

Direct Testimony and Schedules
Joshua D. Taran

Before the Minnesota Public Utilities Commission

State of Minnesota

In the Matter of the Application of Minnesota Power
For Authority to Increase Rates for Electric Utility
Service in Minnesota

Docket No. E015/GR-23-155

Exhibit _____

CAPITAL STRUCTURE AND COST OF CAPITAL

November 1, 2023

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. Please state your name and business address.**

3 A. I am Joshua D. Taran, and my business address is 30 West Superior Street, Duluth,
4 Minnesota 55802.

5
6 **Q. By whom are you employed and in what position?**

7 A. I am employed by ALLETE, Inc., doing business as Minnesota Power (“Minnesota
8 Power” or the “Company”). My current position is Manager – Financial Planning.

9
10 **Q. Please describe your educational background and work experience with ALLETE,**
11 **Inc. (“ALLETE”) and Minnesota Power.**

12 A. I have a Bachelor of Business Administration in Finance from the University of
13 Minnesota Duluth. I joined ALLETE in 2011 as a Financial Analyst and have served
14 in various roles in the finance department since. I have been in my current position
15 since 2022. In this position, I am responsible for financial forecasting for ALLETE.

16
17 **Q. What is the purpose of the testimony you are presenting on behalf of Minnesota**
18 **Power?**

19 A. My testimony will address the recommended capital structure and overall rate of return
20 for Minnesota Power (“Minnesota Power” or the “Company”).

21
22 **Q. How is your testimony organized?**

23 A. My testimony is organized as follows:

- 24 • In Section II, I describe ALLETE’s corporate structure;
- 25 • In Section III, I describe Minnesota Power’s financial position. This section will
- 26 explain the credit ratings, risks facing Minnesota Power, and recent actions taken
- 27 by the rating agencies;
- 28 • In Section IV, I discuss the recommended test year capital structure; and
- 29 • In Section V, I provide my overall conclusions and recommendations.

My testimony provides support for the Minnesota Public Utilities Commission (“Commission”) to establish an overall rate of return of 7.5286 percent. This is based on a recommended capital structure that consists of 53.00 percent common equity and a 10.30 percent return on equity (“ROE”) as supported in the Direct Testimony of Company witness Ms. Ann E. Bulkley. The recommended capital structure and rate of return are needed to support and maintain adequate investment-grade corporate credit ratings and financial integrity necessary for Minnesota Power to continue to provide quality electric service. My recommendations are summarized below in Table 1.

Table 1. Recommended 2024 Test Year Capital Structure and Rate of Return

	Percentage	Cost	Weighted Cost
Long-Term Debt	47.00 %	4.4035 %	2.0696 %
Common Equity	53.00 %	10.3000 %	5.4590 %
Total	100.00 %		7.5286 %

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. I am sponsoring the following schedules to my Direct Testimony:

- MP Exhibit ____ (Taran), Direct Schedule 1 – Moody’s Investor Services (“Moody’s”) Rating Methodology – Regulated Electric and Gas Utilities. (Jun. 23, 2017);
- MP Exhibit ____ (Taran), Direct Schedule 2 – Moody’s Credit Report on ALLETE, Inc. (Apr. 30, 2020);
- MP Exhibit ____ (Taran), Direct Schedule 3 – Moody’s Credit Report on ALLETE, Inc. (Apr. 27, 2021);
- MP Exhibit ____ (Taran), Direct Schedule 4 – Moody’s Credit Report on ALLETE, Inc. (May 31, 2022);
- MP Exhibit ____ (Taran), Direct Schedule 5 – Moody’s Credit Report on ALLETE, Inc. (June 2, 2023);

- MP Exhibit ____ (Taran), Direct Schedule 6 – Standard & Poor’s (“S&P”) Corporation Key Credit Factors for the Regulated Utilities Industry (Nov. 19, 2013);
- MP Exhibit ____ (Taran), Direct Schedule 7 – S&P’s Credit Report on ALLETE, Inc. (Apr. 22, 2020);
- MP Exhibit ____ (Taran), Direct Schedule 8 – S&P’s Credit Report on ALLETE, Inc. (May 18, 2021);
- MP Exhibit ____ (Taran), Direct Schedule 9 – S&P’s Credit Report on ALLETE, Inc. (Feb. 10, 2023);
- MP Exhibit ____ (Taran), Direct Schedule 10 – S&P’s Credit Report on ALLETE, Inc. (June 14, 2023); and
- MP Exhibit ____ (Taran), Direct Schedule 11 – S&P’s Corporate Methodology (Nov. 19, 2013).

Q. Are there other schedules in the rate filing that support the recommendations in your testimony?

A. Yes. For General Rates, my testimony and recommendations are supported by the rate of return and cost of capital exhibits in Volume 3, including:

- Direct Schedule D-1 – Rate of Return/Cost of Capital Summary;
- Direct Schedule D-2 – Embedded Cost of Long-Term Debt; and
- Direct Schedule D-3 – Average Short-Term Securities.

Direct Schedule D-1, Rate of Return/Cost of Capital Summary, shows the cost of each capital element (including ROE), capitalization amounts and ratios, weighted cost of each capital element, and overall rate of return. The actual cost is provided for the 2022 calendar year, and projected costs are provided for 2023 and the 2024 test year. Direct Schedule D-2, Embedded Cost of Long-Term Debt, shows the actual weighted cost of capital for all issuances of long-term debt for 2022 and as projected for 2023 and the 2024 test year. Direct Schedule D-3, Average Short-Term Securities, explains that Minnesota Power does not have any short-term debt in its capital structure.

For Interim Rates, my testimony is supported by the rate of return and cost of capital exhibits in Volume 1, including:

- Direct Schedule C-6 (IR) – Capital Structure and Rate of Return Calculations Comparison to Most Recent General Rate Case;
- Direct Schedule C-7 (IR) – Description of Changes to Capital Structure and Rate of Return Calculations Comparison to Most Recent General Rate Case;
- Direct Schedule D-6 (IR) – Capital Structure and Rate of Return Calculations Comparison to Most Recent (Actual) Fiscal Year; and
- Direct Schedule D-7 (IR) – Description of Changes to Capital Structure and Rate of Return Calculations Comparison to Most Recent (Actual) Fiscal Year.

In addition, my Direct Testimony is supported by the capital structure calculations in Volume 4, including Workpaper COC-1 – Minnesota Power Capital Structure Determination.

II. ALLETE CORPORATE STRUCTURE

Q. What is the purpose of this section of your testimony?

A. The purpose of this section of my testimony is to describe the corporate structure of ALLETE and how Minnesota Power fits into that structure.

Q. Please explain the significance of Minnesota Power to ALLETE.

A. Minnesota Power is an operating division of ALLETE and is ALLETE's dominant business by a significant margin, representing approximately 61 percent of ALLETE's capital.

Q. What are ALLETE's other investments, in addition to Minnesota Power?

A. ALLETE's other investments are organized into three segments: (1) other regulated operations; (2) ALLETE Clean Energy; and (3) corporate and other. ALLETE's regulated operations in addition to Minnesota Power are: American Transmission Company (approximately 8 percent ownership), an independent transmission company

1 in Wisconsin; and Superior Water, Light & Power (“SWLP”), an electric, water, and
2 gas utility in Wisconsin. ALLETE Clean Energy is a company that develops, acquires,
3 and manages clean and renewable energy projects. The corporate and other segment
4 includes the following: New Energy Equity, a company that develops community,
5 commercial and industrial, and small utility-scale solar energy projects; BNI Energy,
6 whose primary business is a lignite coal mining operation in North Dakota that serves
7 the Milton R. Young generating plant located at the mine site; ALLETE South Wind,
8 an investment in the Nobles 2 Wind Farm, which commenced operation in late 2020;
9 ALLETE Properties, a legacy Florida real estate investment; an investment in a utility-
10 scale solar project; and South Shore Energy, an investment in the Nemadji Trail Energy
11 Center.
12

13 **Q. How does Minnesota Power’s capital structure relate to that of ALLETE?**

14 A. As an operating division of ALLETE, Minnesota Power has a capital structure derived
15 from ALLETE’s consolidated capital structure.¹ The ALLETE consolidated capital
16 structure includes common equity and debt that finance business activities across
17 ALLETE, including those of its subsidiary operations. Minnesota Power’s capital
18 structure used for ratemaking purposes is calculated by starting with ALLETE’s capital
19 structure and then extracting the debt located at ALLETE’s subsidiaries and ALLETE’s
20 equity and debt investments in those subsidiaries. Minority interest investments in
21 subsidiary operations are also excluded when calculating the Minnesota Power capital
22 structure. This capital structure methodology is unchanged from the Company’s
23 proposal in prior rate cases. Capital structure calculations are included in Volume 4,
24 Workpaper COC-1– Minnesota Power Capital Structure Determination.
25

26 **Q. You note that Minnesota Power is an operating division of ALLETE. Has**
27 **ALLETE considered forming a holding company?**

28 A. Yes, ALLETE has considered this structure and continues evaluating the potential
29 formation of a holding company as communicated in Minnesota Power’s 2023 Capital

¹ ALLETE’s capital structure is reflected in its 2022 Form 10-K filed with the U.S. Securities and Exchange Commission and included in this filing as Direct Schedule F-1 in Volume 3.

1 Structure Petition.² The nature and timing of any such proposed formation and
2 associated regulatory filing remains undetermined, but would take place after this rate
3 case filing, thus having no impact on this filing. If a holding company formation was
4 implemented, it would not impact the cost structure or allocations for customers.
5

6 III. MINNESOTA POWER'S FINANCIAL POSITION

7 A. The Company's Current Financial Position

8 **Q. What is the purpose of this section of your testimony?**

9 A. This section of the testimony outlines the challenges that Minnesota Power has faced in
10 recent years. Since the evidentiary hearing in Minnesota Power's 2021 Rate Case,
11 Docket No. E015/GR-21-335 ("2021 Rate Case"), Minnesota Power has experienced
12 the following: significant inflation, supply chain challenges, increased costs to recruit
13 and retain a skilled workforce, including a new collective bargaining agreement with
14 the International Brotherhood of Electrical Workers Local 31 union, other general
15 increases to operations and maintenance ("O&M") expense, a rising interest rate
16 environment resulting in increased financing costs, and tighter rating agency credit
17 metric requirements needed to maintain our current credit rating. I will outline the
18 impacts of these challenges and what the Company has done to manage through this
19 period.
20

21 **Q. Please summarize Minnesota Power's present authorized capital structure and**
22 **rate of return.**

23 A. In the 2021 Rate Case, the Commission concluded that an equity ratio of 52.50 percent
24 and a 9.65 percent ROE were appropriate, resulting in an overall rate of return of 7.12
25 percent.
26

² See Footnote 1 of the February 17, 2023 Capital Structure Petition Initial Filing in Docket No. E15/S-23-89.

1 **Q. Please describe Minnesota Power’s debt financing since the 2021 Rate Case.**

2 A. Compared to the 2021 Rate Case, Minnesota Power’s long-term debt portion of the
3 capital structure has increased by \$63.6 million,³ while the cost of long-term debt has
4 increased by 8 basis points. The increased cost of long-term debt is due to the maturity
5 of low interest rate debt subsequently refinanced by new bonds priced in a high interest
6 rate environment. Since testimony concluded in the 2021 Rate Case, the Federal Reserve
7 enacted a series of nine interest rate hikes to tame extensive inflation across the United
8 States economy. This resulted in an increase of 450 basis points to the federal funds
9 target interest rate in that same period. Due to utility bond coupon rates and the federal
10 funds interest rate having a direct correlation, the inflationary pressure across the United
11 States economy resulted in Minnesota Power executing the highest coupon bond pricing
12 since the period of the Great Recession that started in 2008. The recent high interest
13 rate environment has further solidified the importance of Minnesota Power maintaining
14 a positive regulatory framework that results in a supportive credit rating such that
15 moving forward, the Company will continue to have access to low-cost capital for the
16 benefit of customers. This will be of critical importance while Minnesota Power
17 continues to make significant capital investments to provide safe and reliable service to
18 customers and support its clean energy journey towards compliance with Minnesota’s
19 100 percent by 2040 clean electricity standard.

20
21 **Q. Has Minnesota Power maintained its approved equity ratio following its last rate**
22 **proceeding?**

23 A. Yes. Since the 2021 Rate Case, Minnesota Power’s actual capital structure has been
24 prudently managed close to the 2022 approved capital structure (equity to capital ratio
25 of 52.50 percent). Table 2 below displays Minnesota Power’s actual capital structure
26 for 2022 as well as the projected amounts for 2023 and 2024. While Minnesota Power
27 is requesting an equity to capital ratio of 53.00 percent in 2024, the Company is
28 projecting to carry a slightly higher ratio of 53.21 percent.

29

³ The long-term debt amount from Minnesota Power’s most recent general rate case is derived from the requested total capitalized combined with the approved equity ratio from Docket No. E-015/GR-21-335.

Table 2. Minnesota Power Capital Structure 2022–2024

	2022 Actual	2023 Projected	2024 Projected	2024 Requested
Common Equity	\$1,543,229	\$1,534,037	\$1,616,727	
Short-term Debt	-	-	-	
Long-term Debt	1,347,066	1,387,341	1,421,876	
Total Capitalization	\$2,890,295	\$2,921,378	\$3,038,603	
<i>Equity Ratio</i>	53.39%	52.51%	53.21%	53.00%
<i>Debt Ratio</i>	46.61%	47.49%	46.79%	47.00%

Q. Has Minnesota Power earned its allowed rate of return in recent years?

A. No. Minnesota Power’s 2022 unadjusted MN Jurisdictional rate of return was 6.96 percent and the projected 2023 unadjusted MN Jurisdictional rate of return is 6.93 percent. These returns are below the authorized level due to incurred costs that were not included in rates and high inflation that increased O&M including labor, materials, and maintenance costs. This was partially offset by taconite sales and lower property tax expense. The inflationary pressures are expected to continue in the 2024 test year and are a primary driver of the revenue deficiency. Without rate relief, the Company’s proposed 2024 test year MN Jurisdictional rate of return is projected to be only 3.81 percent, which will challenge the Company’s credit metrics further and increase business risk which could restrict the Company’s access to capital.

Q. Why is Minnesota Power’s financial position since the 2021 Rate Case relevant to this proceeding?

A. Minnesota Power’s financial position is relevant to this proceeding because it speaks to the challenging conditions the Company continues to endure and why a constructive rate case outcome is needed to allow Minnesota Power to continue executing its *EnergyForward* strategy toward a carbon-free future. Without reasonable rate relief and a strong rate of return aligned with changing market conditions, the Company’s financial metrics and overall financial integrity will continue to be challenged and put downward pressure on the Company’s credit metrics. Ultimately, this could result in a

1 credit rating downgrade which would increase the Company's cost of capital and
2 increase customer rates. A downgrade would also shift the Company closer to a non-
3 investment grade credit rating, which would significantly limit the Company's access
4 to capital. Additionally, a supportive regulatory framework is instrumental to avoid a
5 further decline to the Company's credit rating, which would place ALLETE's S&P
6 rating one notch above a "junk" rating and just one notch higher at Moody's. As
7 Minnesota Power continues to execute the energy policy of the State of Minnesota and
8 is at a critical point in its clean energy journey—leading in the delivery of 50 percent
9 renewable energy to customers—the financial health of the Company remains critical
10 for further decarbonization of the electric system.

11
12 **B. Importance of Credit Ratings**

13 **Q. Why are adequate investment grade credit ratings important?**

14 A. Credit ratings are the primary measure used by investors to evaluate the risk and
15 creditworthiness of companies. The ratings help debt investors differentiate between
16 companies that are often competing for the same investment dollars, particularly in
17 industries (like the energy industry) with high infrastructure investment needs and
18 therefore high capital needs. An assessment of the Company's creditworthiness is
19 performed by two major credit rating agencies, S&P and Moody's. The credit ratings
20 assigned by these entities affirm their opinions of the Company's ability to meet its
21 financial obligations in full and on time. Rating agency opinions are valued by potential
22 investors because they represent independent, third-party assessments based upon a
23 consistent approach to the evaluation of company risk over time. Investors and other
24 stakeholders want assurance the Company operates in a stable regulatory environment
25 that will allow the recovery of prudently incurred costs and earn a reasonable rate of
26 return on investments necessary to provide safe, reliable, and clean service to its
27 customers.

28
29 The Company's credit ratings, access to both debt and equity markets, and cost of capital
30 accessed directly impact the cost of capital incurred by Minnesota Power customers.
31 The stronger the Company's credit ratings, the greater the number of investors willing

1 to consider investing in the Company's debt and the less the Company will need to pay
2 in fees and interest in order to issue debt, providing benefits for customers. Investment-
3 grade credit ratings are crucial because the cost of debt increases rapidly—and the
4 number of potential buyers decreases substantially—for those companies rated near the
5 bottom of or below investment grade. Because the income available to common equity
6 holders is subordinate to debt obligations, the weakening of a company's
7 creditworthiness also increases the cost of equity.

8
9 In addition to the benefit of lower interest costs, from which customers benefit, many
10 counterparties to Minnesota Power's contracts require ALLETE to have an investment
11 credit rating or post-credit support, such as letters of credit. Posting letters of credit will
12 be of greater frequency and relevance in coming years as Minnesota Power makes
13 substantial infrastructure investments while executing its *EnergyForward* strategy
14 toward a carbon-free future. If ALLETE were downgraded from its current levels, it
15 would put ALLETE's rating at S&P's lowest investment grade rating and just one notch
16 higher at Moody's—which is precariously close to a "junk" bond rating—leaving little
17 room to avoid adverse outcomes. Thus, an investment grade rating avoids significant
18 costs to customers by not having to post letters of credit or pursue other credit
19 enhancements.

20
21 **Q. Do Minnesota Power customers benefit if ALLETE has higher credit ratings?**

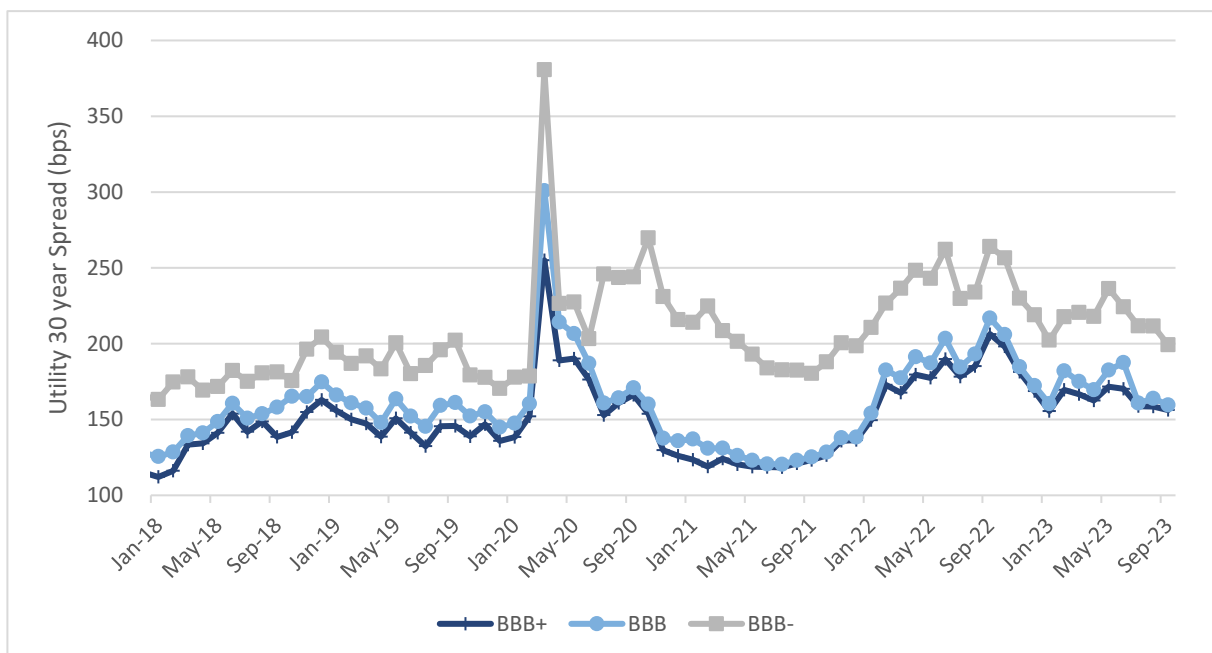
22 A. Yes—the higher the credit rating, the lower the debt cost to the Company's customers.
23 The contrary is also true—the lower the credit rating, the greater the risk to the
24 Company's ability to access capital to serve customers (particularly during turbulent
25 market conditions) and the higher the cost to our customers. A strong credit rating
26 allows Minnesota Power to execute capital projects to develop, maintain, and support
27 the infrastructure needed to ensure safe, reliable, and cost-effective service to customers.
28 The Company must also be able to maintain its operations without interruption and
29 refinance maturing debt on time, regardless of the prevailing financial market
30 conditions, which have proven to be unpredictably volatile over the last several years.

31

1 **Q. Do credit spreads differ based on credit ratings?**

2 A. Yes. Investors view lower credit ratings as riskier and therefore demand a higher return
3 to compensate for the risk premium. Figure 1 below displays credit spreads for BBB+
4 (the Company's rating prior to the outcome in Minnesota Power's 2016 rate case,
5 Docket No. E015/GR-16-664 ("2016 Rate Case"), BBB (the Company's current credit
6 rating), and BBB- (the rating if the Company is downgraded again). This Figure
7 illustrates credit spreads (and thus cost of debt) increases as credit ratings decline. The
8 impacts of the downgrades will increase Minnesota Power's cost of debt over time as
9 more debt is issued at lower ratings. The difference in credit spreads between BBB+
10 and BBB- have averaged approximately 59 basis points over the last five years.
11 However, the difference in spreads is dramatically amplified in periods of economic
12 volatility. For example, during the COVID-19 pandemic, the difference between these
13 credit spreads peaked at 125 basis points in March 2020.⁴

14
15 **Figure 1. Utility 30 Year BBB+, BBB, and BBB- Credit Spreads**



17
18
⁴ Source: Per Bloomberg.

1 **Q. How do economic conditions affect the Company in terms of credit ratings?**

2 A. Credit ratings take on greater importance when economic conditions worsen and access
3 to capital becomes constrained. As credit availability tightens, investors become
4 increasingly selective with respect to the companies in which they will invest. The most
5 assured access to capital is for companies that have solid financial positions, strong
6 credit ratings, and sufficient cash flow generation to meet obligations as they become
7 due. Volatile economic conditions such as periods of high inflation and the COVID-19
8 pandemic constrain the Company's ability to adequately generate cash flow, which is
9 one of the most significant quantitative measures assessed by the rating agencies in
10 determining the creditworthiness of a company. Lower credit ratings reduce access to
11 capital markets and increase the expense of obtaining capital. Attracting competitively
12 priced capital in unexpected or volatile economic conditions is critical in order to
13 provide reliable and safe utility service to the Company's customers at affordable rates.

14
15 **Q. Can you provide examples of how the Company has been impacted by these**
16 **economic conditions?**

17 A. Yes. Due to its unique customer concentration, Minnesota Power is heavily impacted
18 by downturns in the taconite and paper industries, which in turn can have an impact on
19 its credit ratings because those industries represent such a large portion of Minnesota
20 Power's revenue. In fact, revenue from industrial customers was approximately
21 63 percent of Minnesota Power total retail revenue in 2022.⁵ The way such downturns
22 can affect Minnesota Power was demonstrated in 2015, when the Company endured
23 significant impacts as a result of an economic downturn in the steel industry. Taconite
24 customer power nomination levels dropped to 80 percent of capacity in
25 September 2015. In the second quarter of 2015, U.S. Steel Corporation temporarily
26 idled its Minnesota ore operations at its Keewatin Taconite ("Keetac") plant in
27 Keewatin, Minnesota and a portion of its Minnesota ore operations at its Minntac plant
28 in Mountain Iron, Minnesota. In August 2015, Cliffs Natural Resources, Inc.
29 temporarily idled its United Taconite plant in Eveleth, Minnesota. Magnetation, another

⁵ Based on Form FERC Form 1 for ALLETE, Inc. (2022).

1 Minnesota Power customer, idled its facilities in 2016 and later filed bankruptcy,
2 resulting in a permanent 20-megawatt (MW) load reduction.

3
4 In addition to these taconite reductions in 2015 and 2016, Blandin Paper announced in
5 October 2017 that it would permanently shut down its Paper Machine #5 in Grand
6 Rapids, Minnesota. Paper Machine #5 ceased operations in December 2017, which was
7 approximately a 25 MW permanent reduction in load for Minnesota Power.

8
9 In April 2020, U.S. Steel Corporation stated it would idle its Keetac facility in response
10 to the sudden and dramatic decline in business conditions resulting from the COVID-
11 19 pandemic. U.S. Steel Corporation eventually resumed production at Keetac in
12 December 2020. In June 2020, Verso Corporation indefinitely idled its Duluth paper
13 mill. Verso Corporation then sold the Duluth Mill in 2021 and ST Paper began
14 operations at the site in early 2023, but at a much lower capacity amount.

15
16 More recently in February 2022, Cleveland-Cliffs announced its decision to idle all
17 production at its Northshore mine until April 2023, where it then resumed partial
18 operations. These customer decisions about where and how to operate their mills and
19 other facilities underscore the unique and ongoing business risks facing the Company,
20 which are reflected in our credit ratings.

21
22 **Q. Can you address why a customer rate stabilization mechanism would be credit**
23 **positive and help the Company during changes in economic conditions?**

24 **A.** As discussed in the Direct Testimonies of Mr. Frank L. Frederickson, Ms. Jennifer J.
25 Cady, and Ms. Julie I. Pierce, Minnesota Power's proposed customer rate stabilization
26 mechanism would be a simple and balanced method to align risks and benefits of Large
27 Power ("LP") operational volatility that occur between rate cases with all customer
28 classes. The mechanism would provide Minnesota Power the ability to provide a flow
29 back to customers for the net revenue associated with changes to LP customer
30 operations and the addition of new large customers while also ensuring future rate cases
31 would not need to be filed solely because of changes to LP operations, which has

1 historically been a driver for Minnesota Power's rate cases. Because the customer rate
2 stabilization mechanism would mitigate one of the biggest risk factors identified by our
3 rating agencies (industrial customer concentration), its approval by the Commission
4 would support Minnesota Power's credit ratings and would more closely align
5 Minnesota Power's risk profile with that of other utilities. Additionally, approval of this
6 mechanism will result in more stable rates for customers and reduce the impact of LP
7 class volatility on both the Company and customers.

8
9 **Q. Why are strong credit ratings important for the 2024 test year and beyond?**

10 A. Attracting capital is important for Minnesota Power in 2024 and moving forward.
11 Minnesota Power is investing and will continue to invest in our infrastructure to make
12 it more reliable, resilient, safe, and clean. It is our responsibility to diligently plan for
13 these important capital investments as efficiently as possible. The Company will also
14 need to refinance its existing maturing debt in 2024 and beyond. A strong credit rating
15 is imperative to ensure the Company has the financial strength and flexibility to fund
16 both long-term capital requirements, as well as short-term funding needs, to continue
17 executing the clean energy transition. Debtholders are selective regarding where they
18 will invest their capital. Favorable credit ratings and a sound regulatory environment
19 will allow the Company to finance utility infrastructure and renewable projects with
20 favorable terms and low-cost capital for customers.

21
22 In addition, as outlined in Minnesota Power's 2021 Integrated Resource Plan, Docket
23 No. E015/M-21-33, the Company anticipates continuing to invest in incremental
24 carbon-free generation and transmission infrastructure due to the anticipated reduction
25 in coal generation at Boswell Energy Center and more reliance on renewable energy to
26 meet Minnesota energy policy and customer expectations, which will require substantial
27 external financing.

28
29 Finally, a strong regulatory outcome for the 2024 test year would make the potential for
30 a downgrade less likely. This will allow the Company to be able to finance needed

capital additions to continue providing clean, safe, reliable, and affordable energy to its customers as part of the Company's clean-energy transformation.

C. Determination of Credit Ratings and Risk

Q. How does Minnesota Power's capital structure affect the Company's credit rating?

A. As mentioned, Minnesota Power's capital represents a majority of the ALLETE capital structure. Both Moody's and S&P focus on the quantitative and qualitative areas of a company which make up the financial and business risks. For financial risks, the rating agency ratios focus on cash flow, debt payback, and interest coverage, which are directly impacted by the amount of debt carried in the capital structure. A higher level of equity in the capital structure reduces the Company's risk and improves credit metrics. Consequently, Minnesota Power's capital structure and financial performance substantially dictate ALLETE's credit ratings and financial integrity.

Q. How is ALLETE's creditworthiness rated?

A. ALLETE is rated by both Moody's and S&P. Moody's and S&P divide issuer ratings into categories, ranging from Aaa/AAA, reflecting the strongest credit quality, to "C" or "D", reflecting the lowest credit quality. The ratings are modified with a number (1, 2, or 3) for Moody's ratings or a symbol (+ or -) for S&P's ratings to describe the relative position in the credit rating category. For example, Moody's Baa category (comprised of Baa1, Baa2, and Baa3, ranked highest to lowest) aligns with S&P's BBB category (comprised of BBB+, BBB, and BBB-, ranked highest to lowest). A credit rating of Baa3/BBB- is the lowest rating to be considered investment grade; debt rated below Baa3/BBB- is considered non-investment grade or speculative grade (also known as junk grade). In determining ratings, credit rating agencies consider (i) business risk (including regulatory support, customer concentration, and size); (ii) financial risk; (iii) credit metrics; and (iv) other factors. I discuss each of these in turn, below.

1 1. Business Risk

2 **Q. What is “business risk” in the context of credit ratings?**

3 A. Business risk refers to the qualitative assessment used by the rating agencies, which
4 included country and industry risk as well as the competitive position. For Minnesota
5 Power, customer concentration is the biggest and most unique business risk factor
6 identified by both Moody’s and S&P. Moody’s noted the Company’s industrial
7 customer concentration is the highest in their U.S. regulated utility universe and the
8 cyclicality of these customers operating in margin sensitive businesses is “credit
9 negative.” The applicable regulatory framework, Minnesota Power’s small size, service
10 territory, and reduced price offsets in the Midcontinent Independent System Operation
11 (“MISO”) market further contribute to Minnesota Power’s riskier business profile.

12
13 **Q. When establishing a credit rating, what factors do the rating agencies consider**
14 **from a business risk perspective?**

15 A. According to Moody’s June 23, 2017 rating methodology titled *Regulated Electric and*
16 *Gas Utilities* (MP Exhibit ____ (Taran), Direct Schedule 1), nearly 80 percent of the
17 business risk is within the regulatory environment. Since utility rates are set in a
18 regulatory process rather than a competitive process, in this report, Moody’s highlights
19 regulatory framework as a key determinant to the success of a company in the utility
20 industry. In addition, Moody’s examines the ability of a utility to recover its costs and
21 earn an appropriate return because the regulatory environment affects the utility’s ability
22 to generate cash flow and repay its debt over time.

23
24 S&P explains in its November 19, 2013 rating methodology titled *Key Credit Factors*
25 *for the Regulated Utilities Industry* (MP Exhibit ____ (Taran), Direct Schedule 6) that its
26 business risk evaluation for utility companies considers country risks, industry risk, and
27 a company’s advantages and disadvantages within its markets (or its competitive
28 position). Within its evaluation of competitive position, S&P places 60 percent of its
29 weighting on competitive advantage measured by the utility’s regulatory framework.
30 S&P further states that since competitive advantage cannot be measured with the same
31 sub-factors as competitive firms (*i.e.*, non-utility), they instead analyze a utility’s

1 regulatory advantage. Furthermore, S&P bases the foundation of a utility’s regulatory
2 advantage (or disadvantage) on four pillars, including 1) regulatory stability, 2)
3 efficiency of tariff setting procedures, 3) financial stability, and 4) regulatory
4 independence. S&P further explains relevant components of its methodology in its
5 November 19, 2013 publication *Corporate Methodology* (MP Exhibit ____ (Taran),
6 Direct Schedule 11).

7
8 **Q. Does ALLETE’s business risk profile reflect unique characteristics of Minnesota**
9 **Power’s business operations?**

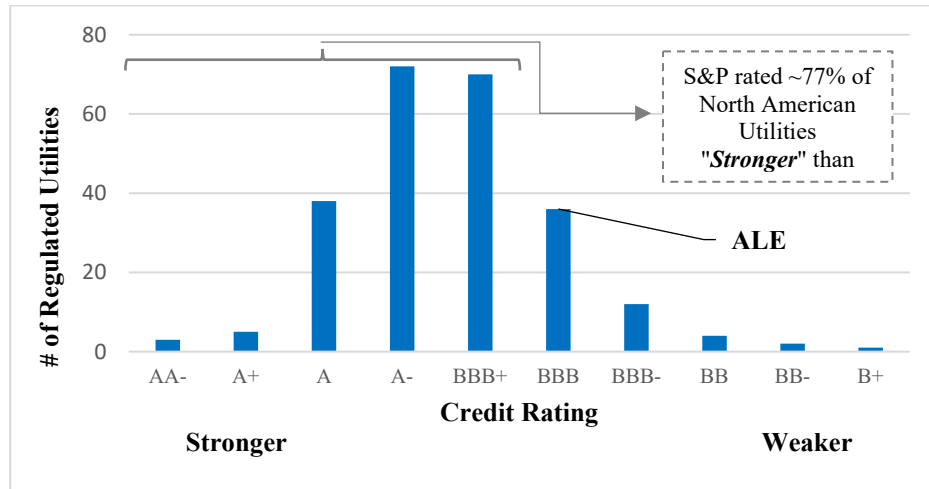
10 A. Yes. According to Moody’s 2023 credit report for ALLETE (MP Exhibit ____ (Taran),
11 Direct Schedule 5), ALLETE’s exposure to industrial customers is substantial,
12 representing roughly 50 percent of annual sales volume in most years—the highest
13 within the Moody’s U.S. regulated utility universe. The Company’s industrial customers
14 consist of operating margin sensitive businesses such as iron pellet and taconite
15 producers (70 percent of industrial kilowatt-hours (“kWh”) sold in 2022); paper, pulp,
16 and wood products companies (11 percent); and oil pipelines and other industrials
17 (19 percent). In addition, Moody’s stated that the credit rating could come under
18 downward pressure if ALLETE’s regulatory framework becomes less credit supportive.
19 Moreover, Moody’s noted Minnesota Power has experienced inconsistent rate case
20 outcomes over the last several years.

21
22 Additionally, this unique risk profile resulted in S&P ranking the Company towards the
23 bottom of all North American regulated utilities in terms of strength.⁶ Out of the 243
24 utilities ranked, the Company was in the bottom quartile, as displayed on Figure 2
25 below.

26

⁶ S&P’s *North American Electric, Gas, And Water Regulated Utilities, Strongest to Weakest* (Aug. 15, 2023).

Figure 2: S&P's Rankings of North American Regulated Utilities, Strongest to Weakest



Q. Can you provide more detail on the risks associated with Minnesota Power's customer concentration?

A. Yes. As previously noted, Minnesota Power's significant industrial customer concentration makes it unique compared to other utilities. As an additional data point for comparison, Minnesota Power's revenue from industrial customers was approximately 63 percent and 65 percent of retail revenue in 2022 and 2021, respectively.⁷ This compares to an industry average of 15 percent in 2021, making Minnesota Power's percentage of revenue from industrial customers among the highest of investor-owned utilities in the United States.⁸

In addition, Minnesota Power's retail customer mix is unique in that energy sales to large industrial customers make up approximately 73 percent of the Company's total retail energy MWh sales, while sales to the residential customer class are only 13 percent of total retail energy MWh sales.⁹

⁷ Based on Form FERC Form 1 for ALLETE, Inc. (2021 and 2022).

⁸ Based on Form EIA-861 Annual Electric Power Industry Report (2021).

⁹ Based on Form FERC Form 1 for ALLETE, Inc. (2022).

1 This industrial customer concentration is a factor that subjects Minnesota Power to
2 substantial earnings volatility risk relative to its peers. Minnesota Power serves a
3 service territory that includes a natural resource-based economy with economic success
4 tied to the operations of a few large customers that function in highly competitive and
5 cyclical industries: taconite processing, paper and wood products manufacturing, and
6 oil pipelines. For example, the 2020 idling of Verso's Duluth paper mill, one of our
7 smaller Large Industrial customers, represented about half of our residential energy
8 sales by comparison. This is unlike the typical utility, which benefits from a stable base
9 of mostly residential and commercial customers.

10
11 The industrial concentration is not only among the industries we serve, but also due to
12 the fact that many of the largest customers we serve are owned by a limited number of
13 companies. In fact, the six taconite producing facilities served by Minnesota Power are
14 owned by just two corporations, both of whom have non-investment grade credit ratings
15 and are in the midst of a sale and acquisition process that could result in one corporation
16 owning all six taconite facilities. Further, these customers have substantial footprints
17 with numerous production facilities across the country. This provides those customers
18 the ability to increase/decrease their production in Minnesota Power's service territory,
19 leading to volatility in Minnesota Power sales. As discussed above, a customer rate
20 stabilization mechanism would help mitigate the risks brought on by this load volatility.

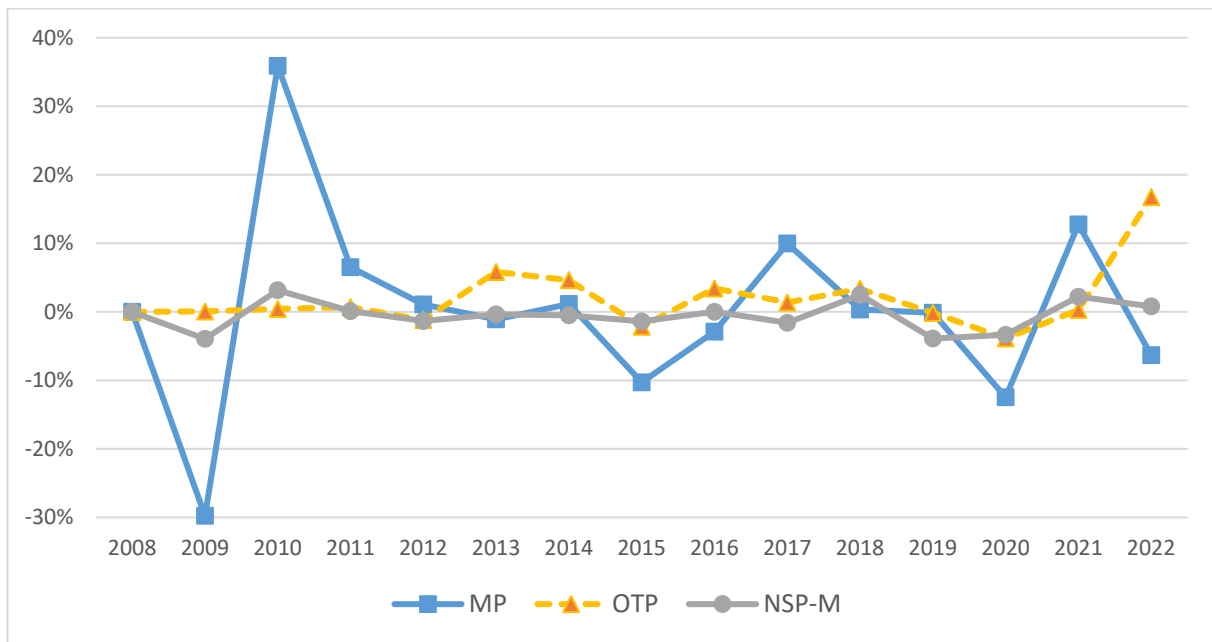
21
22 **Q. Can you provide direct evidence of the uniqueness of the risk that Minnesota**
23 **Power's customer concentration presents?**

24 **A.** Yes. To illustrate the unique level of risk that Minnesota Power's load profile presents,
25 we have compared Minnesota Power to two neighboring Minnesota electric utilities—
26 Northern States Power Company ("NSP") and Otter Tail Power Company ("OTP").
27 These utilities face comparable levels of competition, operate in the same Minnesota
28 regulatory environment, and are allowed essentially the same cost recovery riders. Their
29 load profile, however, is much different because they are not so heavily reliant on sales
30 to a small number of large industrial customers who operate in the highly cyclical
31 taconite and paper industries. Figure 3 below illustrates that Minnesota Power's sales

1 volatility is significantly greater than similar utilities by comparing it to the relative
2 stability of Minnesota's two other investor-owned utilities—OTP and NSP.

3
4 Additionally as noted by the Administrative Law Judge in the Company's 2021 Rate
5 Case, "[i]t is important to recognize the Company's customer concentration and its
6 effect on the cost of equity, as the Commission has previously recognized. Minnesota
7 Power's customer concentration continues to be riskier than other utilities because of its
8 unique load due to both the dominance of large power customers and the types of
9 industries those customers serve."¹⁰

10
11 **Figure 3. MWh Sales to Ultimate Customers Percent Change Year Over Year**



12
13
14 **Q. Does this customer concentration specifically distinguish Minnesota Power from**
15 **other Minnesota investor-owned electric utilities?**

16 **A.** Yes. Minnesota Power's industrial customer concentration is significantly higher than
17 other Minnesota investor-owned electric utilities. As mentioned above, Minnesota
18 Power's percentage of retail revenue from its industrial customers was 63 percent in

¹⁰ *In the Matter of the Application by Minn. Power for Auth. To Increase Rates for Elec. Serv. in Minn.*, Docket No. E-015/GR-21-335, FINDINGS OF FACT, CONCLUSIONS, AND RECOMMENDATION at 21 (Sep. 1, 2022).

2022. This contrasts with the Minnesota operations at OTP and NSP, which saw retail revenue from industrial customers at 26 percent and 19 percent, respectively.¹¹

Q. Has the Administrative Law Judge previously recognized Minnesota Power’s unique customer concentration and the associated variability in the Company’s sales?

A. Yes. In the Company’s 2021 Rate Case, the Administrative Law Judge stated [Minnesota Power’s] industrial customer concentration is a factor that suggests Minnesota Power – ALLETE’s largest company – is subject to “significant” earnings volatility risk relative to its peers... [Minnesota Power’s] customer makeup is unlike that of the typical utility, which benefits from a stable base of mostly residential and commercial customers, and it is unlike Minnesota’s two other electric investor-owned utilities... From an investor’s perspective, the operating and credit risk associated with Minnesota Power’s large amount of customer concentration is significant and requires a higher rate of return.¹²

Q. Does the MISO wholesale market offset the losses the Company has experienced—and will experience—when its industrial customers’ sales decline?

A. Only partially.

Q. Please explain.

A. While the MISO market gives the Company a market into which power can be sold, the margins in this market are based on what can be achieved in the day-ahead or spot prices and not the Company’s actual cost of service. MISO prices have continued to remain lower than historical levels as further described by Company witness Ms. Pierce.

Q. How is this different from the risks facing any other utility operating in the MISO footprint?

A. As previously discussed, Minnesota Power is heavily reliant on sales to a small number of large industrial customers who operate in volatile industries. As a result, Minnesota

¹¹ Based on Form EIA-861 Annual Electric Power Industry Report (2021).

¹² *In the Matter of the Application by Minn. Power for Auth. To Increase Rates for Elec. Serv. in Minn.*, Docket No. E-015/GR-21-335, FINDINGS OF FACT, CONCLUSIONS, AND RECOMMENDATION at 19–21 (Sep. 1, 2022).

1 Power has a much bigger exposure (i.e. risk) to the MISO market when those large
2 customers go offline compared to other utilities with less customer concentration.
3 Likewise, the LP contract provisions only provide a small portion of total revenues if
4 their systems go offline, as further discussed in the testimony of Mr. Frank L.
5 Frederickson.

6
7 **Q. Do the rating agencies also factor in the Company's size, service territory, and**
8 **access to the MISO market when they evaluate the Company?**

9 A. Yes. Both Moody's and S&P evaluate the Company's size, service territory, and access
10 to wholesale markets when determining ALLETE's credit rating. Moody's specifically
11 notes in its 2017 *Regulated Electric and Gas Utilities* rating methodology (MP Exhibit
12 ____ (Taran), Direct Schedule 1) that it looks at the population, size, and breadth of the
13 service territory. Moody's further explains that an issuer with a small service territory
14 that is highly dependent on one or two sectors, especially highly cyclical industries, will
15 score lower on diversification, which increases its business risk.

16
17 **Q. Overall, how do business risk factors translate into impacts to the Company's**
18 **financial metrics and cost of or access to capital?**

19 A. As a result of the business risk factors unique to Minnesota Power, credit rating agencies
20 require the Company to have higher debt coverage ratios to support its credit rating. If
21 Minnesota Power's ratios fall below specified thresholds, the Company's credit rating
22 will be downgraded and ultimately increase costs for customers. This is of elevated
23 importance as Minnesota Power continues to make significant capital investments in
24 order to provide safe and reliable service to customers and support its clean energy
25 journey towards Minnesota's 100 percent by 2040 clean electricity standard.

26
27 **Q. Would a customer rate stabilization mechanism positively affect ALLETE's credit**
28 **rating?**

29 A. Yes. A method such as a customer rate stabilization mechanism would help reduce the
30 lag from needing to file rate cases, which would allow the Company to recover costs

1 and earn a fair and reasonable return in a timely fashion. After the 2016 Rate Case
2 outcome, Moody's stated in its February 8, 2018 report that:

3 Another credit negative outcome of the rate case was the
4 Commission's ruling against the adoption of an annual rate
5 review mechanism (ARRM) which was intended to mitigate the
6 impact of MP's industrial customers idling their plants. Unlike
7 peer utilities in the state with more balanced mix of customers,
8 MP's industrial customers account for about 50% of its annual
9 sales volume, the highest industrial exposure within the Moody's
10 US regulated utility universe...Although the ARRM is not part
11 of MP's existing rate construct, its addition would have been a
12 material credit positive and likely translated into more stability in
13 the company's financial ratios.¹³
14

15 **Q. Have other state agencies recognized that Minnesota Power is unique and riskier**
16 **than other utilities?**

17 A. Yes. For example, in response to Minnesota Power's 2020 petition seeking deferred
18 accounting of extraordinary lost revenues caused by the idling of two industrial
19 customers' plants as a result of the COVID-19 pandemic, the Office of the Attorney
20 General ("OAG") recognized that the "indirect exposure to industrial markets increases
21 Minnesota Power's overall business risk."¹⁴ Additionally, the Department of
22 Commerce – Division of Energy Resources ("Department") noted that "it is not unusual
23 for [Minnesota Power's] large industrial customers to experience periodic downturns,"
24 and "it is not unforeseeable that [Minnesota Power] would be impacted by such a
25 downturn because industrial customers account for 74 percent of sales."¹⁵ Indeed, both
26 the OAG and the Department argued against approval of deferred accounting in that
27 matter because they assumed that the risks associated with Minnesota Power's high
28 percentage of industrial customers that are subject to periodic economic downturns were
29 well known and factored into the Company's approved rate of return.
30

¹³ See Moody's Credit Report on ALLETE, Inc. (Feb 18, 2018).

¹⁴ *In the Matter of Minnesota Power's Petition for Approval to Track and Defer Lost Large Industrial Customer Sales Resulting from the COVID-19 Pandemic*, Docket No. E-015/M-20-814, Comments of the Office of the Attorney General at 2–3 (Jan. 4, 2021).

¹⁵ *In the Matter of Minnesota Power's Petition for Approval to Track and Defer Lost Large Industrial Customer Sales Resulting from the COVID-19 Pandemic*, Docket No. E-015/M-20-814, Comments of the Minnesota Department of Commerce, Division of Energy Resources at 1–2 (Jan. 4, 2021).

1 **Q. How do you recommend that the Commission factor these risks into its**
2 **determinations in this proceeding?**

3 A. Minnesota Power requires a reasonable ability to earn its authorized ROE and produce
4 sufficient cash flow to support its credit rating. The recommended capital structure
5 consisting of 53.00 percent common equity and a ROE of 10.30 percent, supported by
6 the Direct Testimony of Company witness Ms. Bulkley is the first step in allowing
7 ALLETE to maintain its investment grade corporate credit rating and financial integrity
8 to provide its customers with high-quality, safe, and reliable service at competitive rates.

9
10 Additionally, approval of a customer rate stabilization mechanism would allow the
11 Company to appropriately recover costs and earn a fair and reasonable return while
12 mitigating the impacts of material industrial load loss. Company witness Ms. Bulkley's
13 ROE recommendation assumes that some form of a customer rate stabilization
14 mechanism is approved, better aligning the Company's risk profile with that of the many
15 other utilities that have a sales mechanism of some kind. This would address the 2021
16 Rate Case Administrative Law Judge's notation that Minnesota Power "is subject to
17 'significant' earnings volatility risk relative to its peers" and the customer makeup is
18 "unlike Minnesota's two other electric investor-owned utilities."¹⁶ However, the
19 Company is actually requesting an ROE somewhat below the middle of Ms. Bulkley's
20 range to contain the overall rate increase on behalf of customers in light of the
21 inflationary environment affecting the Company as well as customers.

22
23 2. Financial Risk

24 **Q. What does the financial risk profile address?**

25 A. Financial risk addresses the ability of a company to make scheduled payments of
26 principal and interest on its financial obligations. To assess a company's ability to make
27 these payments, the credit agencies evaluate certain financial ratios to determine
28 whether the company will have sufficient levels of cash flow to cover its interest
29 expense and repay the principal amount of its debt. Because it impacts the financial

¹⁶ *In the Matter of the Application by Minn. Power for Auth. To Increase Rates for Elec. Serv. in Minn.*, Docket No. E-015/GR-21-335, FINDINGS OF FACT, CONCLUSIONS, AND RECOMMENDATION at 19-21 (Sep. 1, 2022).

ratios, the credit rating agencies also evaluate the relative amounts of debt and equity in the company's capital structure to determine whether the company is appropriately capitalized given its business risk.

Q. What key financial metrics does Moody's consider in establishing a company's financial risk profile?

A. Moody's evaluates four key financial metrics in order to consider a company's financial risk profile. The four key ratios are listed below. S&P uses similar requirements and metrics to establish its financial risk profile.

- (1) Cash Flow from Operations Before Changes in Working Capital (CFO Pre-Working Capital) to Debt;
- (2) CFO Pre-Working Capital Plus Interest Expense to Interest;
- (3) CFO Pre-Working Capital Minus Dividends to Debt; and
- (4) Debt to Capitalization.

CFO Pre-Working Capital to Debt is the most heavily weighted sub-factor in Moody's assessment of the financial metrics. Based upon Moody's June 2, 2023 credit report for ALLETE basis (MP Exhibit ____ (Taran), Direct Schedule 5), Moody's expects ALLETE's CFO Pre-Working Capital to Debt to be at about 20 percent over the next 12 to 18 months. A downgrade could result if CFO Pre-Working Capital to Debt remains below 19 percent on a sustained.

3. Company Credit Ratings

Q. Where do ALLETE's current credit ratings rank among investment grade credit ratings?

A. Table 3 below depicts the investment grade credit rating scales used by Moody's and S&P. ALLETE, with its downgrades by S&P on April 22, 2020, and Moody's on March 26, 2019, is currently rated BBB (outlook stable) by S&P and Baa1 (outlook stable) by Moody's. These ratings are only one to two notches above the lowest investment grade rating by each respective agency.

Table 3. Investment Grade Credit Ratings

	Moody's	S&P	
Higher	Aaa	AAA	
	Aa1	AA+	
	Aa2	AA	
	Aa3	AA-	
	A1	A+	
	A2	A	
	A3	A-	
	Baa1	BBB+	
	Baa2	BBB	
	Baa3	BBB-	
Lower	Any ratings below this are considered "Junk" (Non-Investment Grade)		

Investment Grade

NSP-MN

OTP

ALLETE

Q. How does the Company's credit rating compare to neighboring utilities?

A. In comparison, our neighboring peers have higher credit ratings. NSP Minnesota is rated A by S&P and A2 by Moody's, which are three and two grades above ALLETE's credit rating, respectively. Similarly, OTP is rated BBB+ by S&P and A3 by Moody's, each of which is one grade above ALLETE's credit rating. This further illustrates the unique business risk facing the Company in comparison to our peers. Due to risk and required rates of returns having a direct relationship, the higher business risk resulting from Minnesota Power's customer concentration suggests a need of a higher rate of return (in comparison to our peers) to compensate for the additional risk.

Q. Why is it important for ALLETE to maintain an adequate credit rating and not be downgraded further?

A. The closer ALLETE is to non-investment grade, the higher its cost of debt will be when it looks to issue debt for future regulated projects or to refinance maturing first mortgage bond debt. The cost of debt increases dramatically during times of financial distress.

1 Credit ratings take on greater importance when economic conditions worsen and access
2 to capital becomes constrained. The most assured access to capital is for companies that
3 have solid financial positions, strong credit ratings and sufficient cash flow generation
4 to meet future obligations. Minnesota Power intends to be strategically aligned and
5 positioned to take advantage of low-cost financing by maintaining or raising its existing
6 credit rating. In addition, if ALLETE were to fall below investment grade, additional
7 costs, such as increases in fees for letters of credit, would be needed to support
8 ALLETE's credit rating when entering into agreements (e.g., with MISO).

9
10 **Q. Do ALLETE's subsidiaries (other than Minnesota Power as an operating division)**
11 **impact its credit metrics?**

12 A. Yes, to a point. ALLETE's subsidiaries positively impact its credit metrics and
13 diversify its cash flows. SWLP is rated Baa1 by Moody's. ATC (an investment by a
14 subsidiary of ALLETE) is rated A2 by Moody's (two notches above ALLETE) and A+
15 by S&P (four notches above ALLETE). In addition, ALLETE's credit rating is
16 determined by ALLETE's financial risk, business risk, and other factors (*i.e.*, corporate
17 governance, liquidity, and capital structure) for Moody's and S&P. Aside from SWLP
18 and the ATC investment, Moody's and S&P do not assess a credit rating for individual
19 subsidiaries under ALLETE because Minnesota Power is ALLETE's dominant
20 business, representing approximately 61 percent of ALLETE's capital. ALLETE
21 appropriately capitalizes its subsidiaries, taking each subsidiary's risk and capital needs
22 into consideration to achieve the desired capital structure, cash flow, and financial risk
23 profile with consideration of Moody's and S&P's rating metrics.

24
25 4. Other Factors

26 **Q. In your experience, does ALLETE compete with other companies for investor**
27 **dollars?**

28 A. Yes. A regulated utility must have the opportunity to earn a return that is competitive
29 and will satisfy investor expectations. From an investor's perspective, the operating and
30 credit risk associated with Minnesota Power's large amount of customer concentration

1 is significant and requires a higher return or a material risk mitigation measure such as
2 the customer rate stabilization mechanism or a combination thereof.

3
4 **Q. Why does this matter?**

5 A. Investors are critical to the Company. ALLETE will have to refinance maturing first
6 mortgage bonds and continue to invest in infrastructure to address reliability in its
7 service territory. The recent high interest rate environment has further solidified the
8 importance of Minnesota Power maintaining a supportive credit rating such that moving
9 forward, the Company will continue to have access to the lowest-cost capital for the
10 benefit of customers. This will be of critical importance while Minnesota Power
11 continues to make significant capital investments in order to provide safe and reliable
12 service to customers and support its clean energy journey towards Minnesota's
13 100 percent by 2040 clean electricity standard.

14
15 **Q. Do Moody's and S&P make adjustments for other items in determining credit**
16 **ratings?**

17 A. Yes. A company's balance sheet by itself does not provide the information necessary
18 to determine the appropriateness of a company's capital structure. It is important to
19 understand that credit ratings do not reflect unadjusted balance sheet capital structure
20 ratios but rather financial ratios that include off-balance sheet debt obligations.
21 Consequently, ALLETE's balance sheet ratios are adjusted to reflect debt equivalents
22 for off-balance sheet debt obligations.

23
24 **Q. What are "debt equivalents" and "off-balance sheet debt obligations"?**

25 A. In the determination of a company's credit rating, rating agencies consider the amount
26 of debt and debt-like instruments (debt equivalents) that a company utilizes relative to
27 the total capital employed by the company. These debt equivalents are either on- or off-
28 balance sheet obligations that the rating agencies treat as debt. All else equal, a
29 company's financial risk profile will increase—and its credit rating will face downward
30 pressure—as the company increases the amount of leverage (debt and debt equivalents)
31 used in its capitalization.

1
2 **Q. Should debt equivalents be considered in determining the reasonableness of**
3 **Minnesota Power’s test year capital structure for ratemaking purposes?**

4 A. Yes. Since credit ratings are driven by financial ratios that include debt equivalents for
5 off-balance sheet obligations, the Company must consider these obligations in its capital
6 structure decisions. Due to the debt equivalents associated with Minnesota Power’s
7 operations, in order to maintain its credit metrics and investment grade credit ratings,
8 the Company is required to carry a higher level of common equity in its capital structure.
9 The Company’s requested equity ratio of 53.00 percent considers these debt adjustments
10 in order to achieve supportive credit metrics.
11

12 **Q. What Minnesota Power “debt equivalents” and “off-balance sheet debt**
13 **obligations” should the Commission consider?**

14 A. Moody’s and S&P financial ratios both include debt equivalents for pension obligations
15 and leases. Additionally, S&P ratios include adjustments for purchased power
16 agreements and asset retirement obligations. Each of these debt equivalents should be
17 considered in the capital structure as they are a key part of Minnesota Power’s ability to
18 provide electrical service to customers in a safe, reliable, and affordable manner.
19

20 **Q. How has the Inflation Reduction Act (“IRA”) impacted Minnesota Power?**

21 A. The primary impact in this context is the IRA provides holders of federal production tax
22 credits (“PTCs”) generated in or after 2023 the ability to transfer the tax credits to
23 eligible taxpayers in exchange for cash payments. Some of Minnesota Power’s existing
24 wind projects generate PTCs that would be eligible for transferability under the new
25 IRA.
26

27 **Q. What is the effect, if any, of the IRA on Minnesota Power for this rate case?**

28 A. Although the final guidance and regulations have not yet been published by the Internal
29 Revenue Service, Minnesota Power is exploring opportunities for tax credit
30 transferability. The impact of such transfers will be addressed in the Company’s next
31 Renewable Resource Rider filing, and thus will not have a direct impact on rates in this

1 rate case. Ultimately, transferring Minnesota Power PTCs will benefit customers. The
2 Direct Testimony of Ms. Rena Verdoljak provides more information on PTCs.
3

4 **Q. What will the impact of tax credit transferability be for the Company's credit**
5 **rating?**

6 A. In August 2023, S&P announced it will include tax credit transfers for cash as part of
7 its funds from operations (FFO) calculation. Moody's has not yet published any such
8 guidance. While tax credit transfers could improve the company's credit metrics, we
9 believe the Company will still be in the acceptable range for Baa1 CFO Pre-Working
10 Capital to Debt ratio for the 2024 test year.
11

12 **D. Recent Credit Actions**

13 1. Basis for Credit Actions Toward ALLETE

14 **Q. Can a negative rate case outcome result in a Credit Rating downgrade?**

15 A. Yes. Following the result of the 2016 Rate Case outcome, Moody's placed ALLETE
16 on negative outlook in February 2018 and then subsequently downgraded it in
17 March 2019. S&P placed ALLETE on negative outlook in February 2018 and then
18 subsequently downgraded it in April 2020. Furthermore, Moody's later stated in 2022
19 that "a rating downgrade could occur if there is a credit negative rate case outcome."¹⁷
20 In Moody's 2023 credit report on ALLETE, Moody's highlighted "historically
21 inconsistent rate case outcomes" as one of the Company's credit challenges. Moody's
22 further stated, "although the outcome of the 2022 rate case was relatively more
23 supportive than past outcomes, the revenue increase was well below the company
24 request." Additionally, Moody's stated that a factor that could lead to a downgrade is if
25 ALLETE's regulatory framework became less credit supportive resulting in a CFO pre-
26 WC to debt ratio falling below 19 percent on a sustained basis.
27

¹⁷ MP Exhibit ____ (Taran), Direct Schedule 4: Moody's Credit Report on ALLETE, Inc. (May 31, 2022)

1 **Q. Is it easy to get upgraded after a downgrade occurs?**

2 A. No, it is not an easy process to receive a credit upgrade after a downgrade occurs. The
3 Company will have to achieve stronger financial ratios on a sustained basis before it can
4 be considered for an upgrade. In fact, the risk of further downgrade still exists if the
5 Company does not meet anticipated rating agency expectations.

6
7 2. Impacts on Access to and Cost of Capital

8 **Q. What are the impacts of the downgrades on the Company?**

9 A. The impacts are all negative and take primarily two forms—reduced access to capital
10 and a higher cost of capital.

11
12 **Q. What are the impacts of the credit downgrade on the Company's cost of capital?**

13 A. While a credit downgrade will not have a significant immediate impact on the debt cost,
14 the impacts will materially increase over time. Based on Bloomberg data, the additional
15 cost in terms of added credit spread paid by BBB- credit companies compared to BBB+
16 rated companies averaged 0.52 percent for the period January 2006 through
17 September 2023. Credit spreads between BBB- and BBB+ rated companies were as
18 high as 1.48 percent at one point during the 2008–2009 financial crisis. Market
19 volatility during the COVID-19 pandemic increased credit spreads between BBB- rated
20 utilities and BBB+ rated utilities by approximately 1.25 percent in March 2020.¹⁸
21 Ultimately, a downgrade will also result in a higher cost of debt for Minnesota Power's
22 customers, which will compound over time and will likely be magnified in financially
23 distressed markets.

24
25 Finally, there is the uncertainty associated with the reduced attractiveness of ALLETE
26 as an investment. As Minnesota Power looks to refinance its debt and issue new debt
27 or letters of credit, the cost of debt and fees will likely be higher than they would have
28 been otherwise. That uncertainty grows when the market becomes less stable, the

¹⁸ Source: Per Bloomberg.

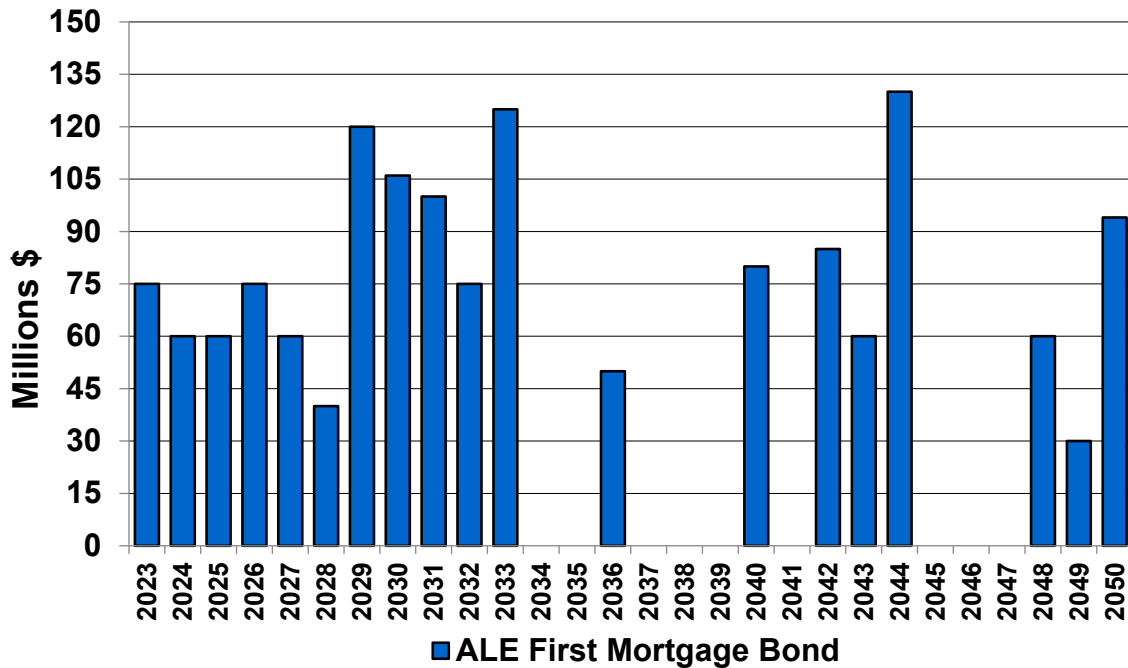
1 Company's revenues shift downward with its LP customers, or other economic
2 conditions deteriorate.

3
4 **Q. How do these factor into future ALLETE debt or equity offerings?**

5 A. ALLETE has a significant amount of first mortgage bond maturities in the next ten years
6 (see Figure 4, below), making access to low-cost capital particularly important. First
7 mortgage bonds are the main debt financing and support for Minnesota Power utility
8 assets. As displayed in Figure 4 below, ALLETE will need to refinance first mortgage
9 bonds every year through 2033 and likely longer as we refinance debt. Also, the
10 Company will need to issue new debt coinciding with the substantial infrastructure
11 investments needed to execute its *EnergyForward* strategy. This is because Minnesota
12 Power's operations will not generate sufficient cash flow to fund these major
13 investments, thus the Company will need to secure additional capital from external
14 sources. It is imperative that Minnesota Power receive a constructive rate case outcome
15 and maintain its credit rating in order to be well-positioned to refinance the maturing
16 first mortgage bonds.

17
18 The timeline for this strategy originally aligned with Minnesota Power's last approved
19 Integrated Resource Plan ("IRP") in November 2022, which outlined the Company's
20 goal of achieving a power supply that was 100 percent carbon free by 2050. However,
21 in early 2023, Minnesota Governor Tim Walz signed legislation into law requiring all
22 Minnesota electric utilities to have 100 percent carbon-free electricity by 2040,
23 expediting the Company's timeline by ten years. This new law will require utilities,
24 including Minnesota Power, to move farther and faster than originally planned in terms
25 of investments in renewables and transmission, further amplifying the importance of
26 access to low-cost capital. These changes will be addressed in our next IRP to be filed
27 in 2025.

Figure 4. Minnesota Power First Mortgage Bond Maturities



Q. Will the Company need external financing beyond refinancing its maturing debt?

A. Yes. Minnesota Power's capital investment plan includes investments to meet safety, environmental, regulatory, and system reliability objectives. Additional investments are planned for Minnesota Power's existing facilities to maintain and expand its system to address reliability as well as previously mentioned carbon reduction initiatives. The Company also plans to invest in transmission opportunities that strengthen or enhance the transmission grid and take advantage of its geographical location between sources of renewable energy and end users. These include the investments to enhance Minnesota Power's own transmission facilities as well as ALLETE investments in other transmission assets (either individually or in partnership with others).

Q. Will the Company have to finance future incremental renewable projects that are currently unknown?

A. Although specifics are not known at this time, the Company expects future investments will be needed due to changing renewable energy and carbon reduction expectations at both the state and federal levels. As technology advances and renewable pricing

continues to become more competitive, the Company will evaluate its portfolio mix and customer costs. It is necessary that the Company remain in good financial standing in order to be able to finance investments needed for a cleaner and more resilient electric system as the Company works towards its vision for a 100 percent carbon-free future.

3. Looking Forward

Q. What is Minnesota Power hoping to achieve in this rate proceeding with respect to its financial metrics and credit ratings?

A. At a minimum, Minnesota Power needs to maintain its current credit rating. As discussed above, in order to achieve this, Minnesota Power must earn an appropriate ROE, as supported in the testimony of Company witness Ms. Bulkley, that adequately recognizes the Company's unique risk. In addition, Minnesota Power needs approval of its recommended 53.00 percent equity ratio, the ability to recover reasonable expenses, and approval of its recommended cost of capital. The Company believes it needs a strong regulatory outcome to improve its credit metrics such that it has a credit rating comparable to its investor-owned utility peers NSP Minnesota and OTP (see Table 3 above).

Q. What regulatory support is needed in Minnesota for the Company to maintain its current credit rating?

A. Regulatory support is heavily weighted by Moody's when determining a utility's business risk profile. Moody's 2017 rating methodology, *Regulated Electric and Gas Utilities* (MP Exhibit ____ (Taran), Direct Schedule 1), explains two factors that are instrumental in determining the credit rating of a company. The two factors include:

- Regulatory Framework; and
- Ability to Recover Costs and Earn Returns.

Moody's states: "[T]he Regulatory Framework is the foundation for how all the decisions that affect utilities are made (including the setting of rates), as well as the predictability and consistency of decision-making provided by that foundation. The Ability to Recover Costs and Earn Returns relates more directly to the actual decisions, including their timeliness and the rate-setting outcomes."

1
2 S&P also states in its 2013 report, *Key Credit Factors for the Regulated Utilities*
3 *Industry* (MP Exhibit ____ (Taran), Direct Schedule 6): “We base our assessment of the
4 regulatory framework’s relative credit supportiveness on our view of how regulatory
5 stability, efficiency or tariff setting procedures, financial stability, and regulatory
6 independence protect a utility’s credit quality and its ability to recover its costs and earn
7 a timely return.”

8
9 These reports and still-recent credit rating agency actions confirm that regulatory
10 support is critical for ALLETE. Regulatory decisions that are perceived as unfavorable
11 can increase the Company’s business risk and put downward pressure on credit ratings.
12 If regulatory support is further jeopardized, Minnesota Power may be perceived as a
13 weakened company, and Minnesota Power customers will ultimately pay for this
14 through higher rates.

15
16 In the next section of my Direct Testimony, I address how these considerations should
17 factor into the Company’s overall 2024 test year capital structure.

18
19 **IV. RECOMMENDED TEST YEAR CAPITAL STRUCTURE**

20 **Q. Please describe the components of Minnesota Power’s capital structure.**

21 A. Minnesota Power recommends a capital structure consisting of 53.00 percent common
22 equity and 47.00 percent long-term debt. Minnesota Power’s capital structures for 2022,
23 the 2023 projected year, and the 2024 test year are shown in Direct Schedule D-1 in
24 Volume 3. For 2022, Minnesota Power’s 13-month average capital structure consisted
25 of 53.39 percent common equity and 46.61 percent long-term debt. For the 2023
26 projected year, the average capital structure is expected to consist of 52.51 percent
27 common equity and 47.49 percent long-term debt. For the 2024 test year, while
28 Minnesota Power is requesting an equity to capital ratio of 53.00 percent, we are
29 projecting to carry a slightly higher ratio of 53.21 percent. These ratios do not reflect
30 any off-balance sheet obligations that, for credit rating purposes, are viewed as the
31 equivalent of debt.

Table 4 below summarizes Minnesota Power's capital structure, ROE, and overall rate of return for 2022 as authorized in the Company's 2021 Rate Case, 2022 actuals, 2023 projected year, and as requested for the 2024 test year.

Table 4. Minnesota Power Rate of Return

(\$000)	Authorized 2022 Retail Rate Case Test Year (E015/GR-21- 335) ¹⁹	2022 Actual	2023 Projected Year	2024 Test Year Requested
Long-Term Debt	\$1,358,299	\$1,347,066	\$1,387,341	\$1,421,876
Common Equity	1,501,278	1,543,229	1,534,037	1,616,727
Total Capital	\$2,859,577	\$2,890,295	\$2,921,378	\$3,038,603
Return on Equity	9.6500%	9.26%	9.25%	10.30%
Overall Rate of Return	7.1207%	6.9628%	6.9257%	7.5286%

Q. Please provide an overview of why this capital structure is reasonable.

A. The Company's objective is to maintain adequate investment credit ratings in order to access needed capital at reasonable costs. This means, at a minimum, maintaining its credit ratings of Baa1 by Moody's and BBB by S&P, as maintaining these ratings is critical for efficiently accessing capital markets and allowing Minnesota Power to pass on these lower capital costs to our customers. The Company's proposed capital structure is reasonable because it is what is currently being carried, it supports the Company's ability to achieve these important objectives to keep overall customer costs at reasonable levels, and it is in line with what the Commission set in recent rate cases.

¹⁹ The long-term debt and common equity amounts above from Minnesota Power's most recent general rate case are derived from the requested total capitalization combined with the approved equity ratio from Docket No. E-015/GR-21- 335.

1 I discuss the components of the capital structure in more detail, below.

2
3 **A. Debt**

4 **Q. Please describe the composition of Minnesota Power's debt.**

5 A. Debt attributable to Minnesota Power consists of first mortgage bonds. Minnesota
6 Power does not carry any short-term debt.

7
8 **Q. Why does Minnesota Power not carry short-term debt?**

9 A. Due to Minnesota Power's risk as determined by rating agencies, using long-term, low-
10 cost, fixed-rate debt better matches Minnesota Power's assets and liabilities. Not having
11 short-term debt is prudent when considering that Minnesota Power's demand has a low
12 seasonality effect compared to other utilities and the cyclical nature of the Company's
13 large industrial customers. This is especially true during economic downturns when
14 access to capital markets is restricted and the Company's financial metrics are
15 challenged (even more so than other utilities due to the make-up of our customer mix),
16 thus putting pressure on credit ratings. To keep costs low in the current high interest
17 rate environment, the Company has avoided issuing any short-term debt and focused
18 solely on long-term debt. Additionally, short-term debt adds repricing risk and subjects
19 the Company to interest rate volatility. It also reduces the rating agencies' liquidity
20 calculations for the Company because short-term debt matures every year, requiring
21 additional financing. By issuing long-term debt, the Company has been able to lock in
22 favorable rates, similar to homeowners locking in fixed mortgages rather than
23 subjecting themselves to fluctuations in interest rates in the market with adjustable rate
24 mortgages. A reliance on short-term debt in the current interest rate environment would
25 subject the Company and its customers to higher costs due to current market conditions
26 where short-term rates are higher than long-term rates.

27
28 **Q. Does ALLETE have other debt outstanding?**

29 A. Yes, but all other debt held at ALLETE is allocated to or held directly at the subsidiary
30 level. This debt is all unsecured and does not impact Minnesota Power's capital
31 structure.

1
2 **Q. What determines which debt supports Minnesota Power and which debt supports**
3 **the subsidiaries?**

4 A. As described above, debt attributable to Minnesota Power consists of only first
5 mortgage bonds. Minnesota Power's first mortgage bonds are secured by Minnesota
6 Power's utility assets, which keeps rates lower—all else being equal.

7
8 The ALLETE debt that supports subsidiaries consists of unsecured notes, and a floating
9 rate tax-exempt bond issued by Collier County, Florida (supported by a letter of credit
10 issued by Wells Fargo), which was originally issued for ALLETE's previously-owned
11 Florida Water subsidiary. Minnesota Power assets do not secure any of the ALLETE
12 debt used by the subsidiaries.

13
14 **Q. Is it beneficial for Minnesota Power to issue first mortgage bonds?**

15 A. Yes, because first mortgage bonds are rated two notches above the unsecured credit
16 rating by Moody's. The two notch upgrade provides the first mortgage bonds with a
17 lower interest rate which directly reduces the Company's cost of debt and thus customer
18 rates.

19
20 **Q. What are the Company's objectives when issuing long-term debt?**

21 A. The primary objectives of the Company's debt financing strategy are to minimize debt
22 costs, maximize financing flexibility, minimize exposure to potential adverse market
23 conditions in the future, maintain a strong liquidity profile, ensure only a small portion
24 of debt matures in a given year, and maintain an adequate investment grade credit rating.
25 Each of these objectives contributes to the overall goal of reducing credit costs and risk.

26
27 **Q. What new debt is expected to be issued in 2024 for Minnesota Power?**

28 A. Minnesota Power expects to issue \$85 million in first mortgage bonds in 2024.
29 Minnesota Power's projected long-term debt balance at the end of the 2024 test year is
30 detailed in Direct Schedule D-2 and is expected to be \$1,427.8 million, or 46.12 percent,
31 of total ending capitalization. When calculated from a 13-month average, however, the

1 balance is \$1,421.9 million, or 46.79 percent, of total average capitalization. As
2 discussed above, the Company is requesting a capital structure with a debt to capital
3 ratio of 47.00 percent. This amount is shown in Direct Schedule D-1 and is used to
4 calculate Minnesota Power's overall cost of capital. The weighted average cost of debt
5 projected in the 2024 test year capital structure is 4.40 percent.

6
7 The precise size, timing, and tenor of debt issuances will depend on prevailing financial
8 market conditions and trends as well as the timing of Minnesota Power's cash receipts
9 and disbursements.

10
11 **Q. Does ALLETE expect to issue any other debt in 2024?**

12 A. ALLETE may issue unsecured debt in support of its subsidiary operations. The specific
13 size, timing, and tenor of any unsecured debt issuances will be dependent on the needs
14 of the subsidiaries. Since this debt will be issued for subsidiary use, it is not included
15 in calculations of Minnesota Power's cost of debt or as part of Minnesota Power's
16 capital structure.

17
18 **Q. Has Minnesota Power considered applying for the new clean energy loans offered
19 by the Department of Energy ("DOE")?**

20 A. Yes. Minnesota Power is always looking for ways to keep its cost of capital as low as
21 possible for the benefit of customers and is exploring opportunities created by the
22 historic federal legislation in the Infrastructure Investment and Jobs Act and the IRA.
23 The Company is in consultation with the DOE Loan Program Office ("LPO") to
24 evaluate opportunities and determine if DOE loans would be beneficial for customers
25 as a method of financing. Minnesota Power is also applying for DOE grants to take
26 advantage of the full scale of opportunities available to the Company. However, it is
27 important to note that such programs require us to make investments to be able to take
28 advantage of the grants available.

1 **Q. Would the new loans offered by the DOE impact credit ratings?**

2 A. Yes. The rating agencies will take all external debt into account when evaluating the
3 creditworthiness of a company. Additionally, the DOE's LPO operations are similar to
4 those of commercial or other private capital market lenders. The LPO performs rigorous
5 due diligence to assess risk that is comparable to what is considered best practice in the
6 private sector. This includes validation by the Risk Management Division, interagency
7 review by the Office of Management and Budget and the U.S. Department of Treasury,
8 review by the DOE Credit Review Board, and Energy Secretary approval.²⁰ These
9 parties assess creditworthiness in a similar fashion as done by the rating agencies, thus
10 further solidifying the importance of maintaining acceptable credit metrics.

11
12 **Q. Are DOE loans guaranteed to be a lower cost than traditional financing?**

13 A. Not necessarily. The DOE loans initially offer an appealing interest rate, starting at just
14 3/8 percent above comparable treasury bonds. However, the overall cost of these loans
15 is subject to adjustments based on various factors. These adjustments take into account
16 considerations such as credit ratings, additional compliance costs, and various fees. It is
17 worth noting that larger issuers tend to benefit from these loans, as they can distribute
18 compliance costs and fees across a larger loan amount. We are currently engaged in a
19 thorough evaluation process in collaboration with the DOE to determine whether these
20 loans will provide the best value for our customers.

21
22 **Q. Would potential DOE financing impact the test year?**

23 A. DOE financing is project specific and due to some of the fixed costs associated with the
24 loan program, the loans are typically \$100 million or more. The timeline for Minnesota
25 Power projects that would be suitable for potential DOE financing are beyond the test
26 year and thus do not impact this rate case.

27

²⁰ Source: Program Guidance for Title 17 Clean Energy Financing Program, issued May 19, 2023, by the Department of Energy's Loan Program Office

1 **Q. Please summarize the embedded cost of the Company’s long-term debt.**

2 A. The cost of long-term debt shown in Direct Schedule D-2—calculated from a 13-month
3 average balance—is 4.33 percent for 2022, 4.36 percent projected for 2023, and
4 4.40 percent for the 2024 test year. These amounts are shown in Direct Schedule D-1
5 and are used to calculate the overall returns.

6
7 **Q. Why has the cost of debt changed since the 2021 Rate Case?**

8 A. Minnesota Power’s projected debt cost has increased since the 2021 Rate Case. The
9 previously approved cost of debt was 4.33 percent and is expected to be 4.40 percent
10 for the 2024 test year. The increased cost of long-term debt is due to the maturity of
11 lower interest rate debt subsequently refinanced by new bonds priced in a higher interest
12 rate environment. Since testimony concluded in the Company’s 2021 Rate Case, the
13 Federal Reserve enacted a series of nine interest rate hikes to tame extensive inflation
14 across the United States economy. This resulted in an increase of 450 basis points to the
15 federal funds target interest rate in that same period. Due to the correlation between
16 utility bond coupon rates and the federal funds interest rate, the inflationary pressure
17 across the United States economy resulted in Minnesota Power executing the highest
18 coupon bond pricing since the period of the Great Recession that started in 2008.

19
20 **B. Common Equity**

21 **Q. Please summarize the level of common equity in the Minnesota Power capital**
22 **structure.**

23 A. The projected common equity balance in Minnesota Power’s capital structure at the end
24 of the 2024 test year is expected to be \$1,668.2 million, or 53.88 percent, of total ending
25 capitalization. When calculated from a 13-month average, however, the balance is
26 \$1,616.7 million, or 53.21 percent, of average capitalization. As discussed above, the
27 Company is requesting a capital structure consisting of 53.00 percent common equity,
28 which is slightly lower than the projected equity ratio that will be carried in 2024. This

1 amount is used to calculate the overall rate of return Minnesota Power is proposing in
2 this case.²¹

3
4 **Q. To determine Minnesota Power’s capital structure, what amount of common**
5 **equity in ALLETE’s capital structure reflects investments in ALLETE**
6 **subsidiaries?**

7 A. In the 2024 test year, ALLETE’s average equity investment balance in subsidiary
8 activities is expected to be \$1,221.3 million. This amount is removed from the ALLETE
9 capital structure to determine Minnesota Power’s test year capital structure.

10
11 **Q. Does the determination of Minnesota Power’s common equity include any other**
12 **adjustments to ALLETE’s balance sheet?**

13 A. Yes. Equity in Minnesota Power’s capital structure includes an accounting entry
14 recorded in ALLETE’s “Accumulated Other Comprehensive Income” (“AOCI”) for
15 amounts associated with non-regulated operations’ post-employment plans, as required
16 by the Statements of Financial Accounting Standards (“SFAS”) 158 (Employers’
17 Accounting for Defined Benefit Pension and Other Post-Employment Plans).

18
19 **Q. Are these adjustments consistent with the adjustments in previous rate filings?**

20 A. Yes, the SFAS 158 adjustment is consistent with the capital structure approved in the
21 Company’s 2021 Rate Case.

22
23 **Q. Please explain the SFAS 158 post-employment plan balance sheet entry.**

24 A. In September 2006, the Financial Accounting Standards Board (“FASB”) issued
25 SFAS 158. SFAS 158 requires employers to recognize certain costs associated with
26 their defined benefit pension and other post-employment plans on their balance sheets.
27 While SFAS 158 amounts for regulated operations are reflected as a long-term
28 regulatory asset, amounts relating to non-regulated operations are recorded in AOCI in
29 the Equity section of the balance sheet.

²¹ See Volume 3, Direct Schedule D-1.

1
2 **Q. Please explain why ALLETE's SFAS 158 post-employment plan entry is reversed**
3 **in Minnesota Power's capital structure.**

4 A. The SFAS 158 amounts recorded in ALLETE's AOCI are removed from Minnesota
5 Power's capital structure because they relate only to non-regulated operations. For the
6 2024 test year, the projected non-regulated post-employment plan amount is
7 \$25.5 million.
8

9 **Q. How much equity does ALLETE carry in its capitalization?**

10 A. Minnesota Power is by far ALLETE's dominant business. Consequently, ALLETE's
11 equity ratios are driven by Minnesota Power's capital structure. For the test year,
12 ALLETE is expected to be capitalized with a projected equity ratio of 61.74 percent and
13 Minnesota Power with a projected equity ratio of 53.21 percent.
14

15 **Q. Why did Minnesota Power reduce its anticipated equity layer from 53.39 percent**
16 **in 2022 to 52.51 percent for 2023?**

17 A. The Company is committed to carrying the capital structure that is authorized by the
18 Commission. In response to the outcome from the 2021 Rate Case, the Company
19 utilized a mix of debt and equity issuances to keep its capital structure aligned with the
20 52.50 percent authorized equity ratio. Since the authorized equity ratio was lower than
21 in past rate cases, additional pressure was placed on the Company's credit metrics from
22 the higher level of debt and interest expense.
23

24 **Q. Why is the Company proposing a 53.00 percent equity ratio for the 2024 test year?**

25 A. The Company is proposing a modest increase in the equity ratio for the 2024 test year
26 commensurate with its overall risk and to keep credit metrics aligned with rating agency
27 requirements. The reduction in the equity ratio in the last rate case was below the equity
28 ratio that the Company had been authorized and had carried for many years prior. The
29 slight increase to 53.00 percent better aligns with the Company's unique risks and would
30 help maintain the Company's current investment grade credit rating.
31

1 **Q. Does ALLETE expect to issue common stock in 2024?**

2 A. Yes. As previously indicated, Minnesota Power has a need for additional external
3 financing. To maintain a capital structure that will support adequate investment grade
4 credit ratings and allow the Company to access needed capital at reasonable costs,
5 ALLETE expects to issue both debt and equity capital.
6

7 **Q. Please summarize why the recommended capital structure for Minnesota Power**
8 **for the 2024 test year is reasonable and appropriate.**

9 A. The Company's objective is to maintain adequate investment-grade credit ratings in
10 order to continue to access the capital it needs at reasonable terms and maintain its
11 financial integrity. The ongoing and new capital expenditure requirements and debt
12 maturities facing Minnesota Power make this objective both more difficult and more
13 important. The Company's recommended test year capital structure produces an
14 adjusted CFO Pre-Working Capital to Debt ratio within the expected range for
15 ALLETE's current Moody's credit rating.
16

17 **C. Return on Equity**

18 **Q. Do you support the analysis and the rate of return on common equity of**
19 **10.30 percent presented by Company witness Ms. Bulkley?**

20 A. Yes. Company witness Ms. Bulkley's conclusion of a 10.30 percent ROE is reasonable
21 in today's economic environment, including the risks that are unique to Minnesota
22 Power, and is representative of the range of equity investors' required rate of return for
23 investment in integrated electric utilities in today's capital markets. The significance of
24 the ROE increases in volatile markets because the level of earnings authorized by the
25 Commission directly impacts the Company's ability to fund capital investment with
26 internally generated funds.
27

28 Ms. Bulkley's recommended ROE considers the Company's unique risk profile—
29 including its customer concentration, capital expenditure program, and debt maturities.
30 Ms. Bulkley's placement of ROE in the range takes into account the approval of a
31 customer rate stabilization mechanism. Additionally, while the Company believes the

1 approved ROE should be on the high end of the range, the Company is requesting a
2 10.30 percent ROE to take into account the fact that our customers are facing the same
3 inflationary pressures and economic conditions driving the need for a rate increase.
4

5 Finally, if other parties recommend a lower range or a customer rate stabilization
6 mechanism is not approved, the recommended ROE placement within the range would
7 have to be revisited. With the Company required to access debt and equity markets for
8 a substantial amount of capital, our ability to attract capital at reasonable returns to
9 ensure continued safe and reliable electric service while maintaining the Company's
10 financial integrity is crucial. Potential investors will evaluate the Company's ability to
11 meet its fixed obligations and provide an acceptable return before committing their
12 capital to the Company.
13

14 V. CONCLUSION

15 **Q. What are your overall recommendations for the 2024 test year?**

16 A. Minnesota Power recommends a capital structure consisting of 53.00 percent common
17 equity and 47.00 percent long-term debt, as well as a 4.40 percent cost of debt for the
18 2024 test year. I also support a rate of return on common equity of 10.30 percent as
19 presented by Company witness Ms. Bulkley.
20

21 As noted previously, and in more detail in the Direct Testimony of Company witness
22 Ms. Cady, Minnesota Power has been consistently achieving the State of Minnesota's
23 energy policy goals on energy conservation, renewable energy additions,
24 decarbonization, and affordability of electricity for customers. However, despite these
25 successes, Minnesota Power has endured challenging financial conditions and
26 significant relief is needed for the Company to continue its transition to a carbon-free
27 future. My testimony has identified several key components required for a utility to
28 remain financially healthy and specific requests to ensure Minnesota Power is well
29 positioned to continue delivering value to customers.
30

1 **Q.** **Does this complete your testimony?**

2 **A.** Yes.

JUNE 23, 2017

INFRASTRUCTURE

Moody's
INVESTORS SERVICE

RATING METHODOLOGY

Regulated Electric and Gas Utilities

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This rating methodology replaces "Regulated Electric and Gas Utilities" last revised on December 23, 2013. We have updated some outdated links and removed certain issuer-specific information.

Summary

This rating methodology explains our approach to assessing credit risk for regulated electric and gas utilities globally. This document does not include an exhaustive treatment of all factors that are reflected in our ratings but should enable the reader to understand the qualitative considerations and financial information and ratios that are usually most important for ratings in this sector.¹

This report includes a detailed scorecard which is a reference tool that can be used to approximate credit profiles within the regulated electric and gas utility sector in most cases. The scorecard provides summarized guidance for the factors that are generally most important in assigning ratings to companies in the regulated electric and gas utility industry. However, the scorecard is a summary that does not include every rating consideration. The weights shown for each factor in the scorecard represent an approximation of their importance for rating decisions but actual importance may vary substantially. In addition, the scorecard uses historical results while ratings are based on our forward-looking expectations. As a result, the scorecard-indicated outcome is not expected to match the actual rating of each company.



THIS METHODOLOGY WAS UPDATED ON THE DATES LISTED AS NOTED: ON SEPTEMBER 10, 2020, WE REMOVED POINT-IN-TIME REFERENCES AND ALSO MADE MINOR FORMATTING CHANGES; ON NOVEMBER 4, 2019, WE UPDATED SOME OUTDATED REFERENCES AND ALSO MADE MINOR FORMATTING CHANGES; ON FEBRUARY 22, 2019, WE AMENDED A REFERENCE TO A METHODOLOGY IN APPENDIX E AND REMOVED OUTDATED TEXT; ON AUGUST 2, 2018, WE MADE MINOR FORMATTING CHANGES THROUGHOUT THE METHODOLOGY; ON FEBRUARY 15, 2018, WE CORRECTED THE FORMATTING OF THE FACTOR 4: FINANCIAL STRENGTH TABLE ON PAGE 34; AND ON SEPTEMBER 27, 2017, WE REMOVED A DUPLICATE FOOTNOTE THAT WAS PLACED IN THE MIDDLE OF THE TEXT ON PAGE 7.

¹ This update may not be effective in some jurisdictions until certain requirements are met.

The scorecard contains four key factors that are important in our assessment for ratings in the regulated electric and gas utility sector:

1. Regulatory Framework
2. Ability to Recover Costs and Earn Returns
3. Diversification
4. Financial Strength

Some of these factors also encompass a number of sub-factors. There is also a notching factor for holding company structural subordination.

This rating methodology is not intended to be an exhaustive discussion of all factors that our analysts consider in assigning ratings in this sector. We note that our analysis for ratings in this sector covers factors that are common across all industries such as ownership, management, liquidity, corporate legal structure, governance and country related risks which are not explained in detail in this document, as well as factors that can be meaningful on a company-specific basis. Our ratings consider these and other qualitative considerations that do not lend themselves to a transparent presentation in a scorecard format. The scorecard used for this methodology reflects a decision to favor a relatively simple and transparent presentation rather than a more complex scorecard that might map scorecard-indicated outcomes more closely to actual ratings.

Highlights of this report include:

- » An overview of the rated universe
- » A summary of the rating methodology
- » A discussion of the scorecard factors
- » Comments on the rating methodology assumptions and limitations, including a discussion of rating considerations that are not included in the scorecard

The Appendices show the full scorecard (Appendix A), our approach to ratings within a utility family (Appendix B), a description of the various types of companies rated under this methodology (Appendix C), regional and other considerations (Appendix D), and treatment of power purchase agreements (Appendix E).

This methodology describes the analytical framework used in determining credit ratings. In some instances, our analysis is also guided by additional publications which describe our approach for analytical considerations that are not specific to any single sector. Examples of such considerations include but are not limited to: the assignment of short-term ratings, the relative ranking of different classes of debt and hybrid securities, how sovereign credit quality affects non-sovereign issuers, and the assessment of credit support from other entities.²

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

² A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

About the Rated Universe

This methodology applies to rate-regulated³ electric and gas utilities that are not Networks⁴. Regulated electric and gas utilities are companies whose predominant⁵ business is the sale of electricity and/or gas or related services under a rate-regulated framework, in most cases to retail customers. Also included under this methodology are rate-regulated utilities that own generating assets as any material part of their business, utilities whose charges or bills to customers include a meaningful component related to the electric or gas commodity, utilities whose rates are regulated at a sub-sovereign level (e.g. by provinces, states or municipalities), and companies providing an independent system operator function to an electric grid. Companies rated under this methodology are primarily rate-regulated monopolies or, in certain circumstances, companies that may not be outright monopolies but where government regulation effectively sets prices and limits competition.

This rating methodology covers regulated electric and gas utilities worldwide. These companies are engaged in the production, transmission, coordination, distribution and/or sale of electricity and/or natural gas, and they are either investor owned companies, commercially oriented government owned companies or, in the case of independent system operators, not-for-profit or similar entities. As detailed in Appendix C, this methodology covers a wide variety of companies active in the sector, including vertically integrated utilities, transmission and distribution utilities with retail customers and/or sub-sovereign regulation, local gas distribution utility companies (LDCs), independent system operators, and regulated generation companies. These companies may be operating companies or holding companies.

An over-arching consideration for regulated utilities is the regulatory environment in which they operate. The nature of regulation can vary significantly from jurisdiction to jurisdiction. While regulation is also a key consideration for networks, a utility's regulatory environment is in comparison often more dynamic and more subject to political intervention. The direct relationship that a regulated utility has with the retail customer, including billing for electric or gas supply that has substantial price volatility, can lead to a more politically charged rate-setting environment. Similarly, regulation at the sub-sovereign level is often more accessible for participation by interveners, including disaffected customers and the politicians who want their votes. Our views of regulatory environments evolve over time in accordance with our observations of regulatory, political, and judicial events that affect issuers in the sector.

This methodology pertains to regulated electric and gas utilities and excludes the following types of issuers, which are covered by separate rating methodologies: regulated networks, unregulated utilities and power companies, public power utilities, municipal joint action agencies, electric cooperatives, regulated water companies and natural gas pipelines.⁶

³ Companies in many industries are regulated. We use the term rate-regulated to distinguish companies whose rates (by which we also mean tariffs or revenues in general) are set by regulators.

⁴ Regulated Electric and Gas Networks are companies whose predominant business is purely the transmission and/or distribution of electricity and/or natural gas without involvement in the procurement or sale of electricity and/or gas; whose charges to customers thus do not include a meaningful commodity cost component; which sell mainly (or in many cases exclusively) to non-retail customers; and which are rate-regulated under a national framework.

⁵ We generally consider a company to be predominantly a regulated electric and gas utility when a majority of its cash flows, prospectively and on a sustained basis, are derived from regulated electric and gas utility businesses. Since cash flows can be volatile (such that a company might have a majority of utility cash flows simply due to a cyclical downturn in its non-utility businesses), we may also consider the breakdown of assets and/or debt of a company to determine which business is predominant.

⁶ A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

About this Rating Methodology

This report explains the rating methodology for regulated electric and gas utilities in six sections, which are summarized as follows:

1. Identification and Discussion of the Scorecard Factors

The scorecard in this rating methodology focuses on four factors. The four factors are comprised of sub-factors that provide further detail:

Factor / Sub-Factor Weighting - Regulated Utilities

Broad Scorecard Factors	Factor Weighting	Sub-Factor	Sub-Factor Weighting
Regulatory Framework	25%	Legislative and Judicial Underpinnings of the Regulatory Framework	12.5%
		Consistency and Predictability of Regulation	12.5%
Ability to Recover Costs and Earn Returns	25%	Timeliness of Recovery of Operating and Capital Costs	12.5%
		Sufficiency of Rates and Returns	12.5%
Diversification	10%	Market Position	5%*
		Generation and Fuel Diversity	5%**
Financial Strength, Key Financial Metrics	40%	CFO pre-WC + Interest / Interest	7.5%
		CFO pre-WC / Debt	15.0%
		CFO pre-WC – Dividends / Debt	10.0%
		Debt/Capitalization	7.5%
Total	100%		100%
Notching Adjustment			
Holding Company Structural Subordination			0 to -3

*10% weight for issuers that lack generation; **0% weight for issuers that lack generation

2. Measurement or Estimation of Factors in the Scorecard

We explain our general approach for scoring each factor and show the weights used in the scorecard. We also provide a rationale for why each of these scorecard components is meaningful as a credit indicator. The information used in assessing the sub-factors is generally found in or calculated from information in company financial statements, derived from other observations or estimated by our analysts. All of the quantitative credit metrics incorporate Moody's standard adjustments to income statement, cash flow statement and balance sheet amounts for restructuring, impairment, off-balance sheet accounts, receivable securitization programs, under-funded pension obligations, and recurring operating leases.⁷

Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends of a company's performance as well as for peer comparisons. We utilize historical data (in most cases, an average of the last three years of reported results) in the scorecard. However, the factors in the scorecard can be assessed using various time

⁷ For more information, see our cross-sector methodology that describes our standard adjustments in the analysis of non-financial corporations. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

periods. For example, rating committees may find it analytically useful to examine both historic and expected future performance for periods of several years or more, or for individual twelve-month periods.

3. Mapping Scorecard Factors to the Rating Categories

After estimating or calculating each sub-factor, the outcomes for each of the sub-factors are mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B, or Caa, also called alpha categories).

4. Assumptions Limitations and Rating Considerations Not Included in the Scorecard

This section discusses limitations in the use of the scorecard to map against actual ratings, some of the additional factors that are not included in the scorecard but can be important in determining ratings, and limitations and assumptions that pertain to the overall rating methodology.

5. Determining the Overall Scorecard-Indicated Outcome⁸

To determine the overall scorecard-indicated outcome, we convert each of the sub-factor ratings into a numeric value based upon the scale below.

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
1	3	6	9	12	15	18	20

The numerical score for each sub-factor is multiplied by the weight for that sub-factor with the results then summed to produce a composite weighted-factor score. The composite weighted factor score is then mapped back to an alphanumeric rating based on the ranges in the table below.

Scorecard-Indicated Outcome

Scorecard-Indicated Outcome	Aggregate Weighted Total Factor Score
Aaa	$x < 1.5$
Aa1	$1.5 \leq x < 2.5$
Aa2	$2.5 \leq x < 3.5$
Aa3	$3.5 \leq x < 4.5$
A1	$4.5 \leq x < 5.5$
A2	$5.5 \leq x < 6.5$
A3	$6.5 \leq x < 7.5$
Baa1	$7.5 \leq x < 8.5$
Baa2	$8.5 \leq x < 9.5$
Baa3	$9.5 \leq x < 10.5$
Ba1	$10.5 \leq x < 11.5$
Ba2	$11.5 \leq x < 12.5$
Ba3	$12.5 \leq x < 13.5$

⁸ In general, the scorecard-indicated outcome is oriented to the Corporate Family Rating (CFR) for speculative-grade issuers and the senior unsecured rating for investment-grade issuers. For issuers that benefit from ratings uplift due to parental support, government ownership or other institutional support, the scorecard-indicated outcome is oriented to the baseline credit assessment. For more information, see our cross-sector methodology that describes our general approach for assessing government-related issuers. Individual debt instrument ratings also factor in decisions on notching for seniority level and collateral. For more information, see our cross-sector methodology that describes principles related to loss given default for speculative grade non-financial companies and also our cross-sector methodology that describes the alignment of corporate instrument ratings based on differences in security and priority of claim. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Scorecard-Indicated Outcome

Scorecard-Indicated Outcome	Aggregate Weighted Total Factor Score
B1	$13.5 \leq x < 14.5$
B2	$14.5 \leq x < 15.5$
B3	$15.5 \leq x < 16.5$
Caa1	$16.5 \leq x < 17.5$
Caa2	$17.5 \leq x < 18.5$
Caa3	$18.5 \leq x < 19.5$
Ca	$x \geq 19.5$

For example, an issuer with a composite weighted factor score of 11.7 would have a Ba2 scorecard-indicated outcome.

6. Appendices

The Appendices present a full scorecard and provide additional commentary and insights on our view of credit risks in this industry.

Discussion of the Scorecard Factors

Our analysis of electric and gas utilities focuses on four broad factors:

- » Regulatory Framework
- » Ability to Recover Costs and Earn Returns
- » Diversification
- » Financial Strength

There is also a notching factor for holding company structural subordination.

Factor 1: Regulatory Framework (25%)

Why It Matters

For rate-regulated utilities, which typically operate as a monopoly, the regulatory environment and how the utility adapts to that environment are the most important credit considerations. The regulatory environment is comprised of two factors - the Regulatory Framework and its corollary factor, the Ability to Recover Costs and Earn Returns. Broadly speaking, the Regulatory Framework is the foundation for how all the decisions that affect utilities are made (including the setting of rates), as well as the predictability and consistency of decision-making provided by that foundation. The Ability to Recover Costs and Earn Returns relates more directly to the actual decisions, including their timeliness and the rate-setting outcomes.

Utility rates⁹ are set in a political/regulatory process rather than a competitive or free-market process; thus, the Regulatory Framework is a key determinant of the success of utility. The Regulatory Framework has many components: the governing body and the utility legislation or decrees it enacts, the manner in which regulators are appointed or elected, the rules and procedures promulgated by those regulators, the judiciary

⁹ In jurisdictions where utility revenues include material government subsidy payments, we consider utility rates to be inclusive of these payments, and we thus evaluate sub-factors 1a, 1b, 2a and 2b in light of both rates and material subsidy payments. For example, we would consider the legal and judicial underpinnings and consistency and predictability of subsidies as well as rates.

that interprets the laws and rules and that arbitrates disagreements, and the manner in which the utility manages the political and regulatory process. In many cases, utilities have experienced credit stress or default primarily or at least secondarily because of a break-down or obstacle in the Regulatory Framework – for instance, laws that prohibited regulators from including investments in uncompleted power plants or plants not deemed “used and useful” in rates, or a disagreement about rate-making that could not be resolved until after the utility had defaulted on its debts.

How We Assess Legislative and Judicial Underpinnings of the Regulatory Framework for the Scorecard

For this sub-factor, we consider the scope, clarity, transparency, supportiveness and granularity of utility legislation, decrees, and rules as they apply to the issuer. We also consider the strength of the regulator's authority over rate-making and other regulatory issues affecting the utility, the effectiveness of the judiciary or other independent body in arbitrating disputes in a disinterested manner, and whether the utility's monopoly has meaningful or growing carve-outs. In addition, we look at how well developed the framework is – both how fully fleshed out the rules and regulations are and how well tested it is – the extent to which regulatory or judicial decisions have created a body of precedent that will help determine future rate-making. Since the focus of our scoring is on each issuer, we consider how effective the utility is in navigating the regulatory framework – both the utility's ability to shape the framework and adapt to it.

A utility operating in a regulatory framework that is characterized by legislation that is credit supportive of utilities and eliminates doubt by prescribing many of the procedures that the regulators will use in determining fair rates (which legislation may show evidence of being responsive to the needs of the utility in general or specific ways), a long history of transparent rate-setting, and a judiciary that has provided ample precedent by impartially adjudicating disagreements in a manner that addresses ambiguities in the laws and rules will receive higher scores in the Legislative and Judicial Underpinnings sub-factor. A utility operating in a regulatory framework that, by statute or practice, allows the regulator to arbitrarily prevent the utility from recovering its costs or earning a reasonable return on prudently incurred investments, or where regulatory decisions may be reversed by politicians seeking to enhance their populist appeal will receive a much lower score.

In general, we view national utility regulation as being less liable to political intervention than regulation by state, provincial or municipal entities, so the very highest scoring in this sub-factor is reserved for this category. However, we acknowledge that states and provinces in some countries may be larger than small nations, such that their regulators may be equally “above-the-fray” in terms of impartial and technically-oriented rate setting, and very high scoring may be appropriate.

The relevant judicial system can be a major factor in the regulatory framework. This is particularly true in litigious societies like the United States, where disagreements between the utility and its state or municipal regulator may eventually be adjudicated in federal district courts or even by the US Supreme Court. In addition, bankruptcy proceedings in the US take place in federal courts, which have at times been able to impose rate settlement agreements on state or municipal regulators. As a result, the range of decisions available to state regulators may be effectively circumscribed by court precedent at the state or federal level, which we generally view as favorable for the credit- supportiveness of the regulatory framework.

Electric and gas utilities are generally presumed to have a strong monopoly that will continue into the foreseeable future, and this expectation has allowed these companies to have greater leverage than companies in other sectors with similar ratings. Thus, the existence of a monopoly in itself is unlikely to be a driver of strong scoring in this sub-factor. On the other hand, a strong challenge to the monopoly could cause lower scoring, because the utility can only recover its costs and investments and service its debt if customers purchase its services. There have been some instances of incursions into utilities' monopoly, including municipalization, self-generation, distributed generation with net metering, or unauthorized use

(beyond the level for which the utility receives compensation in rates). Incursions that are growing significantly or having a meaningful impact on rates for customers that remain with the utility could have a negative impact on scoring of this sub-factor and on factor 2 - Ability to Recover Costs and Earn Returns.

The scoring of this sub-factor may not be the same for every utility in a particular jurisdiction. We have observed that some utilities appear to have greater sway over the relevant utility legislation and promulgation of rules than other utilities – even those in the same jurisdiction. The content and tone of publicly filed documents and regulatory decisions sometimes indicates that the management team at one utility has better responsiveness to and credibility with its regulators or legislators than the management at another utility.

While the underpinnings to the regulatory framework tend to change relatively slowly, they do evolve, and our factor scoring will seek to reflect that evolution. For instance, a new framework will typically become tested over time as regulatory decisions are issued, or perhaps litigated, thereby setting a body of precedent. Utilities may seek changes to laws in order to permit them to securitize certain costs or collect interim rates, or a jurisdiction in which rates were previously recovered primarily in base rate proceedings may institute riders and trackers. These changes would likely impact scoring of sub-factor 2b - Timeliness of Recovery of Operating and Capital Costs, but they may also be sufficiently significant to indicate a change in the regulatory underpinnings. On the negative side, a judiciary that had formerly been independent may start to issue decisions that indicate it is conforming its decisions to the expectations of an executive branch that wants to mandate lower rates.

Factor 1a: Legislative and Judicial Underpinnings of the Regulatory Framework (12.5%)

<p>Utility regulation occurs under a fully developed framework that is national in scope based on legislation that provides the utility a nearly absolute monopoly (see note 1) within its service territory, an unquestioned assurance that rates will be set in a manner that will permit the utility to make and recover all necessary investments, an extremely high degree of clarity as to the manner in which utilities will be regulated and prescriptive methods and procedures for setting rates. Existing utility law is comprehensive and supportive such that changes in legislation are not expected to be necessary; or any changes that have occurred have been strongly supportive of utilities credit quality in general and sufficiently forward-looking so as to address problems before they occurred. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility should they occur, including access to national courts, very strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.</p>	<p>Utility regulation occurs under a fully developed national, state or provincial framework based on legislation that provides the utility an extremely strong monopoly (see note 1) within its service territory, a strong assurance, subject to limited review, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a very high degree of clarity as to the manner in which utilities will be regulated and reasonably prescriptive methods and procedures for setting rates. If there have been changes in utility legislation, they have been timely and clearly credit supportive of the issuer in a manner that shows the utility has had a strong voice in the process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur including access to national courts, strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.</p>	<p>Utility regulation occurs under a well-developed national, state or provincial framework based on legislation that provides the utility a very strong monopoly (see note 1) within its service territory, an assurance, subject to reasonable prudence requirements, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a high degree of clarity as to the manner in which utilities will be regulated, and overall guidance for methods and procedures for setting rates. If there have been changes in utility legislation, they have been mostly timely and on the whole credit supportive for the issuer, and the utility has had a clear voice in the legislative process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur, including access to national courts, clear judicial precedent in the interpretation of utility law, and a strong rule of law. We expect these conditions to continue.</p>	<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory, but with little assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect unpredictable or adverse regulation, based either on the jurisdiction's history of in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or is viewed as not being fully independent of the regulator or other political pressure. Alternately, there may be no redress to an effective independent arbiter. The ability of the utility to enforce its monopoly or prevent uncompensated usage of its system may be limited. There may be a risk of creditor-unfriendly nationalization or other significant intervention in utility markets or rate-setting.</p>
<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory that is generally strong but may have a greater level of exceptions (see note 1), and that, subject to prudency requirements which may be stringent, provides a general assurance (with somewhat less certainty) that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where the jurisdiction has a history of less independent and transparent regulation in other sectors. Either: (i) the judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law; or (ii) where there is no independent arbiter, the regulation has mostly been applied in a manner such redress has not been required. We expect these conditions to continue.</p>	<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility monopoly within its service territory that is reasonably strong but may have important exceptions, and that, subject to prudency requirements which may be stringent or at times arbitrary, provides more limited or less certain assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect less independent and transparent regulation, based either on the regulator's history in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law. Alternately, where there is no independent arbiter, the regulation has been applied in a manner that often requires some redress adding more uncertainty to the regulatory framework. There may be a periodic risk of creditor-unfriendly government intervention in utility markets or rate-setting.</p>	<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory, but with little assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect unpredictable or adverse regulation, based either on the jurisdiction's history of in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or is viewed as not being fully independent of the regulator or other political pressure. Alternately, there may be no redress to an effective independent arbiter. The ability of the utility to enforce its monopoly or prevent uncompensated usage of its system may be limited. There may be a risk of creditor-unfriendly nationalization or other significant intervention in utility markets or rate-setting.</p>	<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory, but with little assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect unpredictable or adverse regulation, based either on the jurisdiction's history of in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or is viewed as not being fully independent of the regulator or other political pressure. Alternately, there may be no redress to an effective independent arbiter. The ability of the utility to enforce its monopoly or prevent uncompensated usage of its system may be limited. There may be a risk of creditor-unfriendly nationalization or other significant intervention in utility markets or rate-setting.</p>

Note 1: The strength of the monopoly refers to the legal, regulatory and practical obstacles for customers in the utility's territory to obtain service from another provider. Examples of a weakening of the monopoly would include the ability of a city or large user to leave the utility system to set up their own system, the extent to which self-generation is permitted (e.g. cogeneration) and/or encouraged (e.g. net metering, DSM generation). At the lower end of the ratings spectrum, the utility's monopoly may be challenged by pervasive theft and unauthorized use. Since utilities are generally presumed to be monopolies, a strong monopoly position in itself is not sufficient for a strong score in this sub-factor, but a weakening of the monopoly can lower the score.

How We Assess Consistency and Predictability of Regulation for the Scorecard

For the Consistency and Predictability sub-factor, we consider the track record of regulatory decisions in terms of consistency, predictability and supportiveness. We evaluate the utility's interactions in the regulatory process as well as the overall stance of the regulator toward the utility.

In most jurisdictions, the laws and rules seek to make rate-setting a primarily technical process that examines costs the utility incurs and the returns on investments the utility needs to earn so it can make investments that are required to build and maintain the utility infrastructure - power plants, electric transmission and distribution systems, and/or natural gas distribution systems. When the process remains technical and transparent such that regulators can support the financial health of the utility while balancing their public duty to assure that reliable service is provided at a reasonable cost, and when the utility is able to align itself with the policy initiatives of the governing jurisdiction, the utility will receive higher scores in this sub-factor. When the process includes substantial political intervention, which could take the form of legislators or other government officials publicly second-guessing regulators, dismissing regulators who have approved unpopular rate increases, or preventing the implementation of rate increases, or when regulators ignore the laws/rules to deliver an outcome that appears more politically motivated, the utility will receive lower scores in this sub-factor.

As with the prior sub-factor, we may score different utilities in the same jurisdiction differently, based on outcomes that are more or less supportive of credit quality over a period of time. We have observed that some utilities are better able to meet the expectations of their customers and regulators, whether through better service, greater reliability, more stable rates or simply more effective regulatory outreach and communication. These utilities typically receive more consistent and credit supportive outcomes, so they will score higher in this sub-factor. Conversely, if a utility has multiple rapid rate increases, chooses to submit major rate increase requests during a sensitive election cycle or a severe economic downturn, has chronic customer service issues, is viewed as frequently providing incomplete information to regulators, or is tone deaf to the priorities of regulators and politicians, it may receive less consistent and supportive outcomes and thus score lower in this sub-factor.

In scoring this sub-factor, we will primarily evaluate the actions of regulators, politicians and jurists rather than their words. Nonetheless, words matter when they are an indication of future action. We seek to differentiate between political rhetoric that is perhaps oriented toward gaining attention for the viewpoint of the speaker and rhetoric that is indicative of future actions and trends in decision-making.

Factor 1b: Consistency and Predictability of Regulation (12.5%)

Aaa	Aa	A	Baa
The issuer's interaction with the regulator has led to a strong, lengthy track record of predictable, consistent and favorable decisions. The regulator is highly credit supportive of the issuer and utilities in general. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a considerable track record of predominantly predictable and consistent decisions. The regulator is mostly credit supportive of utilities in general and in almost all instances has been highly credit supportive of the issuer. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a track record of largely predictable and consistent decisions. The regulator may be somewhat less credit supportive of utilities in general, but has been quite credit supportive of the issuer in most circumstances. We expect these conditions to continue.	The issuer's interaction with the regulator has led to an adequate track record. The regulator is generally consistent and predictable, but there may be some evidence of inconsistency or unpredictability from time to time, or decisions may at times be politically charged. However, instances of less credit supportive decisions are based on reasonable application of existing rules and statutes and are not overly punitive. We expect these conditions to continue.
Ba	B	Caa	
We expect that regulatory decisions will demonstrate considerable inconsistency or unpredictability or that decisions will be politically charged, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. The regulator may have a history of less credit supportive regulatory decisions with respect to the issuer, but we expect that the issuer will be able to obtain support when it encounters financial stress, with some potentially material delays. The regulator's authority may be eroded at times by legislative or political action. The regulator may not follow the framework for some material decisions.	We expect that regulatory decisions will be largely unpredictable or even somewhat arbitrary, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. However, we expect that the issuer will ultimately be able to obtain support when it encounters financial stress, albeit with material or more extended delays. Alternately, the regulator is untested, lacks a consistent track record, or is undergoing substantial change. The regulator's authority may be eroded on frequent occasions by legislative or political action. The regulator may more frequently ignore the framework in a manner detrimental to the issuer.	We expect that regulatory decisions will be highly unpredictable and frequently adverse, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. Alternately, decisions may have credit supportive aspects, but may often be unenforceable. The regulator's authority may have been seriously eroded by legislative or political action. The regulator may consistently ignore the framework to the detriment of the issuer.	

Factor 2: Ability to Recover Costs and Earn Returns (25%)

Why It Matters

This scorecard factor examines the ability of a utility to recover its costs and earn a return over a period of time, including during differing market and economic conditions. While the Regulatory Framework looks at the transparency and predictability of the rules that govern the decision-making process with respect to utilities, the Ability to Recover Costs and Earn Returns evaluates the regulatory elements that directly impact the ability of the utility to generate cash flow and service its debt over time. The ability to recover prudently incurred costs on a timely basis and to attract debt and equity capital are crucial credit considerations. The inability to recover costs, for instance if fuel or purchased power costs ballooned during a rate freeze period, has been one of the greatest drivers of financial stress in this sector, as well as the cause of some utility defaults. In a sector that is typically free cash flow negative (due to large capital expenditures and dividends) and that routinely needs to refinance very large maturities of long-term debt, investor concerns about a lack of timely cost recovery or the sufficiency of rates can, in an extreme scenario, strain access to capital markets and potentially lead to insolvency of the utility. While our scoring for the Ability to Recover Costs and Earn Returns may primarily be influenced by our assessment of the regulatory relationship, it can also be highly impacted by the management and business decisions of the utility.

How We Assess Ability to Recover Costs and Earn Returns

The timeliness and sufficiency of rates are scored as separate sub-factors; however, they are interrelated. Timeliness can have an impact on our view of what constitutes sufficient returns, because a strong assurance of timely cost recovery reduces risk. Conversely, utilities may have a strong assurance that they will earn a full return on certain deferred costs until they are able to collect them, or their generally strong returns may allow them to weather some rate lag on recovery of construction-related capital expenditures. The timeliness of cost recovery is particularly important in a period of rapidly rising costs. Utilities have benefitted from low interest rates and generally decreasing fuel costs and purchased power costs, but these market conditions could easily reverse. For example, fuel is a large component of total costs for vertically integrated utilities and for natural gas utilities, and fuel prices are highly volatile, so the timeliness of fuel and purchased power cost recovery is especially important.

While Factors 1 and 2 are closely inter-related, scoring of these factors will not necessarily be the same. We have observed jurisdictions where the Regulatory Framework caused considerable credit concerns – perhaps it was untested or going through a transition to de-regulation, but where the track record of rate case outcomes was quite positive, leading to a higher score in the Ability to Recover Costs and Earn Returns. Conversely, there have been instances of strong Legislative and Judicial Underpinnings of the Regulatory Framework where the commission has ignored the framework (which would affect Consistency and Predictability of Regulation as well as Ability to Recover Costs and Earn Returns) or has used extraordinary measures to prevent or defer an increase that might have been justifiable from a cost perspective but would have caused rate shock.

One might surmise that Factors 2 and 4 should be strongly correlated, since a good Ability to Recover Costs and Earn Returns would normally lead to good financial metrics. However, the scoring for the Ability to Recover Costs and Earn Returns sub-factor places more emphasis on our expectation of timeliness and sufficiency of rates over time; whereas financial metrics may be impacted by one-time events, market conditions or construction cycles - trends that we believe could normalize or even reverse.

How We Assess Timeliness of Recovery of Operating and Capital Costs for the Scorecard

The criteria we consider include provisions and cost recovery mechanisms for operating costs, mechanisms that allow actual operating and/or capital expenditures to be trued-up periodically into rates without having to file a rate case (this may include formula rates, rider and trackers, or the ability to periodically adjust rates

for construction work in progress) as well as the process and timeframe of general tariff/base rate cases – those that are fully reviewed by the regulator, generally in a public format that includes testimony of the utility and other stakeholders and interest groups. We also look at the track record of the utility and regulator for timeliness. For instance, having a formula rate plan is positive, but if the actual process has included reviews that are delayed for long periods, it may dampen the benefit to the utility. In addition, we seek to estimate the lag between the time that a utility incurs a major construction expenditures and the time that the utility will start to recover and/or earn a return on that expenditure.

How We Assess Sufficiency of Rates and Returns for the Scorecard

The criteria we consider include statutory protections that assure full cost recovery and a reasonable return for the utility on its investments, the regulatory mechanisms used to determine what a reasonable return should be, and the track record of the utility in actually recovering costs and earning returns. We examine outcomes of rate cases/tariff reviews and compare them to the request submitted by the utility, to prior rate cases/tariff reviews for the same utility and to recent rate/tariff decisions for a peer group of comparable utilities. In this context, comparable utilities are typically utilities in the same or similar jurisdiction. In cases where the utility is unique or nearly unique in its jurisdiction, comparison will be made to other peers with an adjustment for local differences, including prevailing rates of interest and returns on capital, as well as the timeliness of rate-setting. We look at regulatory disallowances of costs or investments, with a focus on their financial severity and also on the reasons given by the regulator, in order to assess the likelihood that such disallowances will be repeated in the future.

Factor 2a: Timeliness of Recovery of Operating and Capital Costs (12.5%)

Aaa	Aa	A	Baa
Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous return on all incremental capital investments, with statutory provisions in place to preclude the possibility of challenges to rate increases or cost recovery mechanisms. By statute and by practice, general rate cases are efficient, focused on an impartial review, quick, and permit inclusion of fully forward-looking costs.	Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous or near-contemporaneous return on most incremental capital investments, with minimal challenges by regulators to companies' cost assumptions. By statute and by practice, general rate cases are efficient, focused on an impartial review, of a very reasonable duration before non-appealable interim rates can be collected, and primarily permit inclusion of forward-looking costs.	Automatic cost recovery mechanisms provide full and reasonably timely recovery of fuel, purchased power and all other highly variable operating expenses. Material capital investments may be made under tariff formulas or other rate-making permitting reasonably contemporaneous returns, or may be submitted under other types of filings that provide recovery of cost of capital with minimal delays. Instances of regulatory challenges that delay rate increases or cost recovery are generally related to large, unexpected increases in sizeable construction projects. By statute or by practice, general rate cases are reasonably efficient, primarily focused on an impartial review, of a reasonable duration before rates (either permanent or non-refundable interim rates) can be collected, and permit inclusion of important forward-looking costs.	Fuel, purchased power and all other highly variable expenses are generally recovered through mechanisms incorporating delays of less than one year, although some rapid increases in costs may be delayed longer where such deferrals do not place financial stress on the utility. Incremental capital investments may be recovered primarily through general rate cases with moderate lag, with some through tariff formulas. Alternately, there may be formula rates that are untested or unclear. Potentially greater tendency for delays due to regulatory intervention, although this will generally be limited to rates related to large capital projects or rapid increases in operating costs.
Ba	B	Caa	
There is an expectation that fuel, purchased power or other highly variable expenses will eventually be recovered with delays that will not place material financial stress on the utility, but there may be some evidence of an unwillingness by regulators to make timely rate changes to address volatility in fuel, or purchased power, or other market-sensitive expenses. Recovery of costs related to capital investments may be subject to delays that are somewhat lengthy, but not so pervasive as to be expected to discourage important investments.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to material delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be subject to delays that are material to the issuer, or may be likely to discourage some important investment.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to extensive delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be uncertain, subject to delays that are extensive, or that may be likely to discourage even necessary investment.	

Note: Tariff formulas include formula rate plans as well as trackers and riders related to capital investment.

Factor 2b: Sufficiency of Rates and Returns (12.5%)

Aaa	Aa	A	Baa
Sufficiency of rates to cover costs and attract capital is (and will continue to be) unquestioned.	Rates are (and we expect will continue to be) set at a level that permits full cost recovery and a fair return on all investments, with minimal challenges by regulators to companies' cost assumptions. This will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are strong relative to global peers.	Rates are (and we expect will continue to be) set at a level that generally provides full cost recovery and a fair return on investments, with limited instances of regulatory challenges and disallowances. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally above average relative to global peers, but may at times be average.	Rates are (and we expect will continue to be) set at a level that generally provides full operating cost recovery and a mostly fair return on investments, but there may be somewhat more instances of regulatory challenges and disallowances, although ultimate rate outcomes are sufficient to attract capital without difficulty. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are average relative to global peers, but may at times be somewhat below average.
Ba	B	Caa	
Rates are (and we expect will continue to be) set at a level that generally provides recovery of most operating costs but return on investments may be less predictable, and there may be decidedly more instances of regulatory challenges and disallowances, but ultimate rate outcomes are generally sufficient to attract capital. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally below average relative to global peers, or where allowed returns are average but difficult to earn. Alternately, the tariff formula may not take into account all cost components and/or remuneration of investments may be unclear or at times unfavorable.	We expect rates will be set at a level that at times fails to provide recovery of costs other than cash costs, and regulators may engage in somewhat arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based much more on politics than on prudence reviews. Return on investments may be set at levels that discourage investment. We expect that rate outcomes may be difficult or uncertain, negatively affecting continued access to capital. Alternately, the tariff formula may fail to take into account significant cost components other than cash costs, and/or remuneration of investments may be generally unfavorable.	We expect rates will be set at a level that often fails to provide recovery of material costs, and recovery of cash costs may also be at risk. Regulators may engage in more arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based primarily on politics. Return on investments may be set at levels that discourage necessary maintenance investment. We expect that rate outcomes may often be punitive or highly uncertain, with a markedly negative impact on access to capital. Alternately, the tariff formula may fail to take into account significant cash cost components, and/or remuneration of investments may be primarily unfavorable.	

Factor 3: Diversification (10%)

Why It Matters

Diversification of overall business operations helps to mitigate the risk that economic cycles, material changes in a single regulatory regime or commodity price movements will have a severe impact on cash flow and credit quality of a utility. While utilities' sales volumes have lower exposure to economic recessions than many non-financial corporate issuers, some sales components, including industrial sales, are directly affected by economic trends that cause lower production and/or plant closures. In addition, economic activity plays a role in the rate of customer growth in the service territory and (absent energy efficiency and conservation) can often impact usage per customer. The economic strength or weakness of the service territory can affect the political and regulatory environment for rate increase requests by the utility. For utilities in areas prone to severe storms and other natural disasters, the utility's geographic diversity or concentration can be a key determinant for creditworthiness.

Diversity among regulatory regimes can mitigate the impact of a single unfavorable decision affecting one part of the utility's footprint.

For utilities with electric generation, fuel source diversity can mitigate the impact (to the utility and to its rate-payers) of changes in commodity prices, hydrology and water flow, and environmental or other regulations affecting plant operations and economics. We have observed that utilities' regulatory environments are most likely to become unfavorable during periods of rapid rate increases (which are more important than absolute rate levels) and that fuel diversity leads to more stable rates over time.

For that reason, fuel diversity can be important even if fuel and purchased power expenses are an automatic pass-through to the utility's ratepayers. Changes in environmental, safety and other regulations have caused vulnerabilities for certain technologies and fuel sources. These vulnerabilities have varied widely in different countries and have changed over time.

How We Assess Market Position for the Scorecard

Market position is comprised primarily of the economic diversity of the utility's service territory and the diversity of its regulatory regimes. We also consider the diversity of utility operations (e.g., regulated electric, gas, water, steam) when there are material operations in more than one area.

Economic diversity is a typically a function of the population, size and breadth of the territory and the businesses that drive its GDP and employment. For the size of the territory, we typically consider the number of customers and the volumes of generation and/or throughput. For breadth, we consider the number of sizeable metropolitan areas served, the economic diversity and vitality in those metropolitan areas, and any concentration in a particular area or industry. In our assessment, we may consider various information sources.¹⁰ We also look at the mix of the utility's sales volumes among customer types, as well as the track record of volume sales and any notable payment patterns during economic cycles. For diversity of regulatory regimes, we typically look at the number of regulators and the percentages of revenues and utility assets that are under the purview of each. While the highest scores in the Market Position sub-factor are reserved for issuers regulated in multiple jurisdictions, when there is only one regulator, we make a differentiation of regimes perceived as having lower or higher volatility.

Issuers with multiple supportive regulatory jurisdictions, a balanced sales mix among residential, commercial, industrial and governmental customers in a large service territory with a robust and diverse economy will generally score higher in this sub-factor. An issuer with a small service territory economy that

¹⁰ For example, in the US, information sources on the diversity and vitality of economies of individual states and metropolitan areas may include Moody's Economy.com.

has a high dependence on one or two sectors, especially highly cyclical industries, will generally score lower in this sub-factor, as will issuers with meaningful exposure to economic dislocations caused by natural disasters.

For issuers that are vertically integrated utilities having a meaningful amount of generation, this sub-factor has a weighting of 5%. For electric transmission and distribution utilities without meaningful generation and for natural gas local distribution companies, this sub-factor has a weighting of 10%.

How We Assess Generation and Fuel Diversity for the Scorecard

Criteria include the fuel type of the issuer's generation and important power purchase agreements, the ability of the issuer economically to shift its generation and power purchases when there are changes in fuel prices, the degree to which the utility and its rate-payers are exposed to or insulated from changes in commodity prices, and exposure to Challenged Source and Threatened Sources (see the explanations for how we generally characterize these generation sources in the table below). A regulated utility's capacity mix may not in itself be an indication of fuel diversity or the ability to shift fuels, since utilities may keep old and inefficient plants (e.g., natural gas boilers) to serve peak load. For this reason, we do not incorporate set percentages reflecting an "ideal" or "sub-par" mix for capacity or even generation. In addition to looking at a utility's generation mix to evaluate fuel diversity, we consider the efficiency of the utility's plants, their placement on the regional dispatch curve, and the demonstrated ability/inability of the utility to shift its generation mix in accordance with changing commodity prices.

Issuers having a balanced mix of hydro, coal, natural gas, nuclear and renewable energy as well as low exposure to challenged and threatened sources of generation will score more highly in this sub-factor. Issuers that have concentration in one or two sources of generation, especially if they are threatened or challenged sources, will incur lower scores.

In evaluating an issuer's degree of exposure to challenged and threatened sources, we will consider not only the existence of those plants in the utility's portfolio, but also the relevant factors that will determine the impact on the utility and on its rate-payers. For instance, an issuer that has a fairly high percentage of its generation from challenged sources could be evaluated very differently if its peer utilities face the same magnitude of those issues than if its peers have no exposure to challenged or threatened sources. In evaluating threatened sources, we consider the utility's progress in its plan to replace those sources, its reserve margin, the availability of purchased power capacity in the region, and the overall impact of the replacement plan on the issuer's rates relative to its peer group. Especially if there are no peers in the same jurisdiction, we also examine the extent to which the utility's generation resources plan is aligned with the relevant government's fuel/energy policy.

Factor 3: Diversification (10%)

Weighting 10%	Sub-Factor Weighting	Aaa	Aa	A	Baa
Market Position	5.00% *	A very high degree of multinational and regional diversity in terms of regulatory regimes and/or service territory economies.	Material operations in three or more nations or substantial geographic regions providing very good diversity of regulatory regimes and/or service territory economies.	Material operations in two to three nations, states, provinces or regions that provide good diversity of regulatory regimes and service territory economies. Alternately, operates within a single regulatory regime with low volatility, and the service territory economy is robust, has a very high degree of diversity and has demonstrated resilience in economic cycles.	May operate under a single regulatory regime viewed as having low volatility, or where multiple regulatory regimes are not viewed as providing much diversity. The service territory economy may have some concentration and cyclicality, but is sufficiently resilient that it can absorb reasonably foreseeable increases in utility rates.
Generation and Fuel Diversity	5.00% **	A high degree of diversity in terms of generation and/or fuel sources such that the utility and rate-payers are well insulated from commodity price changes, no generation concentration, and very low exposures to Challenged or Threatened Sources (see definitions below).	Very good diversification in terms of generation and/or fuel sources such that the utility and rate-payers are affected only minimally by commodity price changes, little generation concentration, and low exposures to Challenged or Threatened Sources.	Good diversification in terms of generation and/or fuel sources such that the utility and rate-payers have only modest exposure to commodity price changes; however, may have some concentration in a source that is neither Challenged nor Threatened. Exposure to Threatened Sources is low. While there may be some exposure to Challenged Sources, it is not a cause for concern.	Adequate diversification in terms of generation and/or fuel sources such that the utility and rate-payers have moderate exposure to commodity price changes; however, may have some concentration in a source that is Challenged. Exposure to Threatened Sources is moderate, while exposure to Challenged Sources is manageable.
Weighting 10%	Sub-Factor Weighting	Ba	B	Caa	Definitions
Market Position	5.00% *	Operates in a market area with somewhat greater concentration and cyclicality in the service territory economy and/or exposure to storms and other natural disasters, and thus less resilience to absorbing reasonably foreseeable increases in utility rates. May show somewhat greater volatility in the regulatory regime(s).	Operates in a limited market area with material concentration and more severe cyclicality in service territory economy such that cycles are of materially longer duration or reasonably foreseeable increases in utility rates could present a material challenge to the economy. Service territory may have geographic concentration that limits its resilience to storms and other natural disasters, or may be an emerging market. May show decided volatility in the regulatory regime(s).	Operates in a concentrated economic service territory with pronounced concentration, macroeconomic risk factors, and/or exposure to natural disasters.	Challenged Sources are generation plants that face higher but not insurmountable economic hurdles resulting from penalties or taxes on their operation, or from environmental upgrades that are required or likely to be required. Some examples are carbon-emitting plants that incur carbon taxes, plants that must buy emissions credits to operate, and plants that must install environmental equipment to continue to operate, in each where the taxes/credits/upgrades are sufficient to have a material impact on those plants' competitiveness relative to other generation types or on the utility's rates, but where the impact is not so severe as to be likely require plant closure.

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INFRASTRUCTURE

Generation and Fuel Diversity	5.00% **	Modest diversification in generation and/or fuel sources such that the utility or rate-payers have greater exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be more pronounced, but the utility will be able to access alternative sources without undue financial stress.	Operates with little diversification in generation and/or fuel sources such that the utility or rate-payers have high exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be high, and accessing alternate sources may be challenging and cause more financial stress, but ultimately feasible.	Operates with high concentration in generation and/or fuel sources such that the utility or rate-payers have exposure to commodity price shocks. Exposure to Challenged and Threatened Sources may be very high, and accessing alternate sources may be highly uncertain.	Threatened Sources are generation plants that are not currently able to operate due to major unplanned outages or issues with licensing or other regulatory compliance, and plants that are highly likely to be required to de-activate, whether due to the effectiveness of currently existing or expected rules and regulations or due to economic challenges.
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* 10% weight for issuers that lack generation **0% weight for issuers that lack generation

Factor 4: Financial Strength (40%)

Why It Matters

Electric and gas utilities are regulated, asset-based businesses characterized by large investments in long-lived property, plant and equipment. Financial strength, including the ability to service debt and provide a return to shareholders, is necessary for a utility to attract capital at a reasonable cost in order to invest in its generation, transmission and distribution assets, so that the utility can fulfill its service obligations at a reasonable cost to rate-payers.

How We Assess It for the Scorecard

In comparison to companies in other non-financial corporate sectors, the financial statements of regulated electric and gas utilities have certain unique aspects that impact financial analysis, which is further complicated by disparate treatment of certain elements under US Generally Accepted Accounting Principles (GAAP) versus International Financial Reporting Standards (IFRS). Regulatory accounting may permit utilities to defer certain costs (thereby creating regulatory assets) that a non-utility corporate entity would have to expense. For instance, a regulated utility may be able to defer a substantial portion of costs related to recovery from a storm based on the general regulatory framework for those expenses, even if the utility does not have a specific order to collect the expenses from ratepayers over a set period of time. A regulated utility may be able to accrue and defer a return on equity (in addition to capitalizing interest) for construction-work-in-progress for an approved project based on the assumption that it will be able to collect that deferred equity return once the asset comes into service. For this reason, we focus more on a utility's cash flow than on its reported net income.

Conversely, utilities may collect certain costs in rates well ahead of the time they must be paid (for instance, pension costs), thereby creating regulatory liabilities. Many of our metrics focus on Cash Flow from Operations Before Changes in Working Capital (CFO Pre-WC) because, unlike Funds from Operations (FFO), it captures the changes in long-term regulatory assets and liabilities.

However, under IFRS the two measures are essentially the same. In general, we view changes in working capital as less important in utility financial analysis because they are often either seasonal (for example, power demand is generally greatest in the summer) or caused by changes in fuel prices that are typically a relatively automatic pass-through to the customer. We will nonetheless examine the impact of working capital changes in analyzing a utility's liquidity (see "Other Rating Considerations" – Liquidity).

Given the long-term nature of utility assets and the often lumpy nature of their capital expenditures, it is important to analyze both a utility's historical financial performance as well as its prospective future performance, which may be different from backward-looking measures. Scores under this factor may be higher or lower than what might be expected from historical results, depending on our view of expected future performance. Multi-year periods are usually more representative of credit quality because utilities can experience swings in cash flows from one-time events, including such items as rate refunds, storm cost deferrals that create a regulatory asset, or securitization proceeds that reduce a regulatory asset. Nonetheless, we also look at trends in metrics for individual periods, which may influence our view of future performance and ratings.

For this scoring grid, we have identified four key ratios that we consider the most consistently useful in the analysis of regulated electric and gas utilities. However, no single financial ratio can adequately convey the relative credit strength of these highly diverse companies. Our ratings consider the overall financial strength of a company, and in individual cases other financial indicators may also play an important role.

CFO Pre-Working Capital Plus Interest/Interest or Cash Flow Interest Coverage

The cash flow interest coverage ratio is an indicator for a utility's ability to cover the cost of its borrowed capital. The numerator in the ratio calculation is the sum of CFO Pre-WC and interest expense, and the denominator is interest expense.

CFO Pre-Working Capital / Debt

This important metric is an indicator for the cash generating ability of a utility compared to its total debt. The numerator in the ratio calculation is CFO Pre-WC, and the denominator is total debt.

CFO Pre-Working Capital Minus Dividends / Debt

This ratio is an indicator for financial leverage as well as an indicator of the strength of a utility's cash flow after dividend payments are made. Dividend obligations of utilities are often substantial, quasi- permanent outflows that can affect the ability of a utility to cover its debt obligations, and this ratio can also provide insight into the financial policies of a utility or utility holding company. The higher the level of retained cash flow relative to a utility's debt, the more cash the utility has to support its capital expenditure program. The numerator of this ratio is CFO Pre-WC minus dividends, and the denominator is total debt.

Debt/Capitalization

This ratio is a traditional measure of balance sheet leverage. The numerator is total debt and the denominator is total capitalization. All of our ratios are calculated in accordance with our standard adjustments¹¹, but we note that our definition of total capitalization includes deferred taxes in addition to total debt, preferred stock, other hybrid securities, and common equity. Since the presence or absence of deferred taxes is a function of national tax policy, comparing utilities using this ratio may be more meaningful among utilities in the same country or in countries with similar tax policies. High debt levels in comparison to capitalization can indicate higher interest obligations, can limit the ability of a utility to raise additional financing if needed, and can lead to leverage covenant violations in bank credit facilities or other financing agreements¹². A high ratio may result from a regulatory framework that does not permit a robust cushion of equity in the capital structure, or from a material write-off of an asset, which may not have impacted current period cash flows but could affect future period cash flows relative to debt.

There are two sets of thresholds for three of these ratios based on the level of the issuer's business risk – the Standard Grid and the Lower Business Risk (LBR) Grid. In our view, the different types of utility entities covered under this methodology (as described in Appendix C) have different levels of business risk.

Generation utilities and vertically integrated utilities generally have a higher level of business risk because they are engaged in power generation, so we apply the Standard Grid. We view power generation as the highest-risk component of the electric utility business, as generation plants are typically the most expensive part of a utility's infrastructure (representing asset concentration risk) and are subject to the greatest risks in both construction and operation, including the risk that incurred costs will either not be recovered in rates or recovered with material delays.

Other types of utilities may have lower business risk, such that we believe that they are most appropriately assessed using the LBR Grid, due to factors that could include a generally greater transfer of risk to customers, very strong insulation from exposure to commodity price movements, good protection from volumetric risks, fairly limited capex needs and low exposure to storms, major accidents and natural

¹¹ In certain circumstances, analysts may also apply specific adjustments.

¹² We also examine debt/capitalization ratios as defined in applicable covenants (which typically exclude deferred taxes from capitalization) relative to the covenant threshold level.

disasters. For instance, we tend to view many US natural gas local distribution companies (LDCs) and certain US electric transmission and distribution companies (T&Ds, which lack generation but generally retain some procurement responsibilities for customers), as typically having a lower business risk profile than their vertically integrated peers. In cases of T&Ds that we do not view as having materially lower risk than their vertically integrated peers, we will apply the Standard grid. This could result from a regulatory framework that exposes them to energy supply risk, large capital expenditures for required maintenance or upgrades, a heightened degree of exposure to catastrophic storm damage, or increased regulatory scrutiny due to poor reliability, or other considerations. The Standard Grid will also apply to LDCs that in our view do not have materially lower risk; for instance, due to their ownership of high pressure pipes or older systems requiring extensive gas main replacements, where gas commodity costs are not fully recovered in a reasonably contemporaneous manner, or where the LDC is not well insulated from declining volumes.

The four key ratios, their weighting in the grid, and the Standard and LBR scoring thresholds are detailed in the following table.

Factor 4: Financial Strength

Weighting 40%	Sub-Factor Weighting		Aaa	Aa	A	Baa	Ba	B	Caa
CFO pre-WC + Interest / Interest	7.50%		≥ 8.0x	6.0x - 8.0x	4.5x - 6.0x	3.0x - 4.5x	2.0x - 3.0x	1.0x - 2.0x	< 1.0x
CFO pre-WC / Debt	15.00%	Standard Grid	≥ 40%	30% - 40%	22% - 30%	13% - 22%	5% - 13%	1% - 5%	< 1%
		Low Business Risk Grid	≥ 38%	27% - 38%	19% - 27%	11% - 19%	5% - 11%	1% - 5%	< 1%
CFO pre-WC - Dividends / Debt	10.00%	Standard Grid	≥ 35%	25% - 35%	17% - 25%	9% - 17%	0% - 9%	(5%) - 0%	< (5%)
		Low Business Risk Grid	≥ 34%	23% - 34%	15% - 23%	7% - 15%	0% - 7%	(5%) - 0%	< (5%)
Debt / Capitalization	7.50%	Standard Grid	< 25%	25% - 35%	35% - 45%	45% - 55%	55% - 65%	65% - 75%	≥ 75%
		Low Business Risk Grid	< 29%	29% - 40%	40% - 50%	50% - 59%	59% - 67%	67% - 75%	≥ 75%

Notching for Structural Subordination of Holding Companies

Why It Matters

A typical utility company structure consists of a holding company ("HoldCo") that owns one or more operating subsidiaries (each an "OpCo"). OpCos may be regulated utilities or non-utility companies. A HoldCo typically has no operations – its assets are mostly limited to its equity interests in subsidiaries, and potentially other investments in subsidiaries that are structured as advances, debt, or even hybrid securities.

Most HoldCos present their financial statements on a consolidated basis that blurs legal considerations about priority of creditors based on the legal structure of the family, and scorecard scoring is thus based on consolidated ratios. However, HoldCo creditors typically have a secondary claim on the group's cash flows and assets after OpCo creditors. We refer to this as structural subordination, because it is the corporate legal structure, rather than specific subordination provisions, that causes creditors at each of the utility and non-utility subsidiaries to have a more direct claim on the cash flows and assets of their respective OpCo obligors. By contrast, the debt of the HoldCo is typically serviced primarily by dividends that are up-

streamed by the OpCos¹³. Under normal circumstances, these dividends are made from net income, after payment of the OpCo's interest and preferred dividends. In most non-financial corporate sectors where cash often moves freely between the entities in a single issuer family, this distinction may have less of an impact. However, in the regulated utility sector, barriers to movement of cash among companies in the corporate family can be much more restrictive, depending on the regulatory framework. These barriers can lead to significantly different probabilities of default for HoldCos and OpCos. Structural subordination also affects loss given default. Under most default¹⁴ scenarios, an OpCo's creditors will be satisfied from the value residing at that OpCo before any of the OpCo's assets can be used to satisfy claims of the HoldCo's creditors. The prevalence of debt issuance at the OpCo level is another reason that structural subordination is usually a more serious concern in the utility sector than for investment grade issuers in other non-financial corporate sectors.

The grids for factors 1-4 are primarily oriented to OpCos (and to some degree for HoldCos with minimal current structural subordination; for example, there is no current structural subordination to debt at the operating company if all of the utility family's debt and preferred stock is issued at the HoldCo level, although there is structural subordination to other liabilities at the OpCo level). The additional risk from structural subordination is addressed via a notching adjustment to bring scorecard-indicated outcomes (on average) closer to the actual ratings of HoldCos.

How We Assess It

Scorecard-indicated outcomes of holding companies may be notched down based on structural subordination. The risk factors and mitigants that impact structural subordination are varied and can be present in different combinations, such that a formulaic approach is not practical and case-by-case analyst judgment of the interaction of all pertinent factors that may increase or decrease its importance to the credit risk of an issuer are essential.

Some of the potentially pertinent factors that could increase the degree and/or impact of structural subordination include the following:

- » Regulatory or other barriers to cash movement from OpCos to HoldCo
- » Specific ring-fencing provisions
- » Strict financial covenants at the OpCo level
- » Higher leverage at the OpCo level
- » Higher leverage at the HoldCo level¹⁵
- » Significant dividend limitations or potential limitations at an important OpCo
- » HoldCo exposure to subsidiaries with high business risk or volatile cash flows
- » Strained liquidity at the HoldCo level
- » The group's investment program is primarily in businesses that are higher risk or new to the group

Some of the potentially mitigating factors that could decrease the degree and/or impact of structural subordination include the following:

¹³ The HoldCo and OpCo may also have intercompany agreements, including tax sharing agreements, that can be another source of cash to the HoldCo.

¹⁴ Actual priority in a default scenario will be determined by many factors, including the corporate and bankruptcy laws of the jurisdiction, the asset value of each OpCo, specific financing terms, inter-relationships among members of the family, etc.

¹⁵ While higher leverage at the HoldCo does not increase structural subordination per se, it exacerbates the impact of any structural subordination that exists.

- » Substantial diversity in cash flows from a variety of utility OpCos
- » Meaningful dividends to HoldCo from unlevered utility OpCos
- » Dependable, meaningful dividends to HoldCo from non-utility OpCos
- » The group's investment program is primarily in strong utility businesses
- » Inter-company guarantees - however, in many jurisdictions the value of an upstream guarantee may be limited by certain factors, including by the value that the OpCo received in exchange for granting the guarantee

Notching for structural subordination within the scorecard may range from 0 to negative 3 notches. Instances of extreme structural subordination are relatively rare, so the scorecard convention does not accommodate wider differences, although in the instances where we believe it is present, actual ratings do reflect the full impact of structural subordination.

A related issue is the relationship of ratings within a utility family with multiple operating companies, and sometimes intermediate holding companies. Some of the key issues are the same, such as the relative amounts of debt at the holding company level compared to the operating company level (or at one OpCo relative to another), and the degree to which operating companies have credit insulation due to regulation or other protective factors. Appendix B has additional insights on ratings within a utility family.

Assumptions, Limitations and Other Rating Considerations

The scorecard in this rating methodology represents a decision to favor simplicity that enhances transparency and to avoid greater complexity that might enable the scorecard to map more closely to actual ratings. Accordingly, the four factors and the notching factor in the scorecard do not constitute an exhaustive treatment of all of the considerations that are important for ratings of companies in the regulated electric and gas utility sector. In addition, our ratings incorporate expectations for future performance, while the financial information that is used in the scorecard is mainly historical. In some cases, our expectations for future performance may be informed by confidential information that we cannot disclose. In other cases, we estimate future results based upon past performance, industry trends, competitor actions or other factors. In either case, predicting the future is subject to the risk of substantial inaccuracy.

Assumptions that may cause our forward-looking expectations to be incorrect include unanticipated changes in any of the following factors: the macroeconomic environment and general financial market conditions, industry competition, disruptive technology, regulatory and legal actions.

Key rating assumptions that apply in this sector include our view that sovereign credit risk is strongly correlated with that of other domestic issuers, that legal priority of claim affects average recovery on different classes of debt, sufficiently to generally warrant differences in ratings for different debt classes of the same issuer, and the assumption that lack of access to liquidity is a strong driver of credit risk.

In choosing metrics for this rating methodology scorecard, we did not explicitly include certain important factors that are common to all companies in any industry such as the quality and experience of management, assessments of corporate governance and the quality of financial reporting and information disclosure. Therefore, ranking these factors by rating category in a scorecard would in some cases suggest too much precision in the relative ranking of particular issuers against all other issuers that are rated in various industry sectors.

Ratings may include additional factors that are difficult to quantify or that have a meaningful effect in differentiating credit quality only in some cases, but not all. Such factors include financial controls, exposure to uncertain licensing regimes and possible government interference in some countries.

Regulatory, litigation, liquidity, technology and reputational risk as well as changes to consumer and business spending patterns, competitor strategies and macroeconomic trends also affect ratings. While these are important considerations, it is not possible precisely to express these in the rating methodology scorecard without making the scorecard excessively complex and significantly less transparent.

Ratings may also reflect circumstances in which the weighting of a particular factor will be substantially different from the weighting suggested by the scorecard.

This variation in weighting rating considerations can also apply to factors that we choose not to represent in the scorecard. For example, liquidity is a consideration frequently critical to ratings and which may not, in other circumstances, have a substantial impact in discriminating between two issuers with a similar credit profile. As an example of the limitations, ratings can be heavily affected by extremely weak liquidity that magnifies default risk. However, two identical companies might be rated the same if their only differentiating feature is that one has a good liquidity position while the other has an extremely good liquidity position.

Other Rating Considerations

We consider other factors in addition to those discussed in this report, but in most cases understanding the considerations discussed herein should enable a good approximation of our view on the credit quality of companies in the regulated electric and gas utilities sector. Ratings consider our assessment of the quality of management, corporate governance, financial controls, liquidity management, event risk and seasonality. The analysis of these factors remains an integral part of our rating process.

Liquidity and Access to Capital Markets

Liquidity analysis is a key element in the financial analysis of electric and gas utilities, and it encompasses a company's ability to generate cash from internal sources as well as the availability of external sources of financing to supplement these internal sources. Liquidity and access to financing are of particular importance in this sector. Utility assets can often have a very long useful life- 30, 40 or even 60 years is not uncommon, as well as high price tags. Partly as a result of construction cycles, the utility sector has experienced prolonged periods of negative free cash flow – essentially, the sum of its dividends and its capital expenditures for maintenance and growth of its infrastructure frequently exceeds cash from operations, such that a portion of capital expenditures must routinely be debt financed. Utilities are among the largest debt issuers in the corporate universe and typically require consistent access to the capital markets to assure adequate sources of funding and to maintain financial flexibility. Substantial portions of capex are non-discretionary (for example, maintenance, adding customers to the network, or meeting environmental mandates); however, utilities have been swift to cut or defer discretionary spending during recessions. Dividends represent a quasi-permanent outlay, since utilities typically only rarely will cut their dividend. Liquidity is also important to meet maturing obligations, which often occur in large chunks, and to meet collateral calls under any hedging agreements.

Due to the importance of liquidity, incorporating it as a factor with a fixed weighting in the scorecard would suggest an importance level that is often far different from the actual weight in the rating. In normal circumstances, most companies in the sector have good access to liquidity. The industry generally requires, and for the most part has, large, syndicated, multi-year committed credit facilities. In addition, utilities have

demonstrated strong access to capital markets, even under difficult conditions. As a result, liquidity generally has not been an issue for most utilities and a utility with very strong liquidity may not warrant a rating distinction compared to a utility with strong liquidity. However, when there is weakness in liquidity or liquidity management, it can be the dominant consideration for ratings.

Our assessment of liquidity for regulated utilities involves an analysis of total sources and uses of cash over the next 12 months or more, as is done for all corporates. Using our financial projections of the utility and our analysis of its available sources of liquidity (including an assessment of the quality and reliability of alternate liquidity such as committed credit facilities), we evaluate how its projected sources of cash (cash from operations, cash on hand and existing committed multi-year credit facilities) compare to its projected uses (including all or most capital expenditures, dividends, maturities of short and long-term debt, our projection of potential liquidity calls on financial hedges, and important issuer-specific items such as special tax payments). We assume no access to capital markets or additional liquidity sources, no renewal of existing credit facilities, and no cut to dividends. We examine a company's liquidity profile under this scenario, its ability to make adjustments to improve its liquidity position, and any dependence on liquidity sources with lower quality and reliability.

Management Quality and Financial Policy

The quality of management is an important factor supporting the credit strength of a regulated utility or utility holding company. Assessing the execution of business plans over time can be helpful in assessing management's business strategies, policies, and philosophies and in evaluating management performance relative to performance of competitors and our projections. A record of consistency provides us with insight into management's likely future performance in stressed situations and can be an indicator of management's tendency to depart significantly from its stated plans and guidelines.

We also assess financial policy (including dividend policy and planned capital expenditures) and how management balances the potentially competing interests of shareholders, fixed income investors and other stakeholders. Dividends and discretionary capital expenditures are the two primary components over which management has the greatest control in the short term. For holding companies, we consider the extent to which management is willing to stretch its payout ratio (through aggressive increases or delays in needed decreases) in order to satisfy common shareholders. For a utility that is a subsidiary of a parent company with several utility subsidiaries, dividends to the parent may be more volatile depending on the cash generation and cash needs of that utility, because parents typically want to assure that each utility maintains the regulatory debt/equity ratio on which its rates have been set. The effect we have observed is that utility subsidiaries often pay higher dividends when they have lower capital needs and lower dividends when they have higher capital expenditures or other cash needs. Any dividend policy that cuts into the regulatory debt/equity ratio is a material credit negative.

Size – Natural Disasters, Customer Concentration and Construction Risks

The size and scale of a regulated utility has generally not been a major determinant of its credit strength in the same way that it has been for most other industrial sectors. While size brings certain economies of scale that can somewhat affect the utility's cost structure and competitiveness, rates are more heavily impacted by costs related to fuel and fixed assets. Smaller utilities have sometimes been better able to focus their attention on meeting the expectations of a single regulator than their multi-state peers.

However, size can be a very important factor in our assessment of certain risks that impact ratings, including exposure to natural disasters, customer concentration (primarily to industrial customers in a single sector) and construction risks associated with large projects. While the scorecard attempts to incorporate the first

two of these into Factor 3, for some issuers these considerations may be sufficiently important that the rating reflects a greater weight for these risks. While construction projects always carry the risk of cost overruns and delays, these risks are materially heightened for projects that are very large relative to the size of the utility.

Interaction of Utility Ratings with Government Policies and Sovereign Ratings

Compared to most industrial sectors, regulated utilities are more likely to be impacted by government actions. Credit impacts can occur directly through rate regulation, and indirectly through energy, environmental and tax policies. Government actions affect fuel prices, the mix of generating plants, the certainty and timing of revenues and costs, and the likelihood that regulated utilities will experience financial stress. While our evolving view of the impact of such policies and the general economic and financial climate is reflected in ratings for each utility, some considerations do not lend themselves to incorporation in a simple scorecard.¹⁶

Diversified Operations at the Utility

A small number of regulated utilities have diversified operations that are segments within the utility company, as opposed to the more common practice of housing such operations in one or more separate affiliates. In general, we will seek to evaluate the other businesses that are material in accordance with the appropriate methodology and the rating will reflect considerations from such methodologies. There may be analytical limitations in evaluating the utility and non-utility businesses when segment financial results are not fully broken out and these may be addressed through estimation based on available information. Since regulated utilities are a relatively low risk business compared to other corporate sectors, in most cases diversified non-utility operations increase the business risk profile of a utility. Reflecting this tendency, we note that assigned ratings are typically lower than scorecard-indicated outcomes for such companies.

Event Risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp decline in an issuer's fundamental creditworthiness. Typical special events include mergers and acquisitions, asset sales, spin-offs, capital restructuring programs, litigation and shareholder distributions.

Corporate Governance

Among the areas of focus in corporate governance are audit committee financial expertise, the incentives created by executive compensation packages, related party transactions, interactions with outside auditors, and ownership structure.

Investment and Acquisition Strategy

In our credit assessment, we take into consideration management's investment strategy. Investment strategy is benchmarked with that of the other companies in the rated universe to further verify its consistency. Acquisitions can strengthen a company's business. Our assessment of a company's tolerance for acquisitions at a given rating level takes into consideration (1) management's risk appetite, including the likelihood of further acquisitions over the medium term; (2) share buy-back activity; (3) the company's commitment to specific leverage targets; and (4) the volatility of the underlying businesses, as well as that of the business acquired. Ratings can often hold after acquisitions even if leverage temporarily climbs above normally acceptable ranges. However, this depends on (1) the strategic fit; (2) pro-forma

¹⁶ For more information, see our cross-sector methodology that discusses general principles related to how sovereign credit quality can impact other ratings. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

capitalization/leverage following an acquisition; and (3) our confidence that credit metrics will be restored in a relatively short timeframe.

Financial Controls

We rely on the accuracy of audited financial statements to assign and monitor ratings in this sector. Such accuracy is only possible when companies have sufficient internal controls, including centralized operations, the proper tone at the top and consistency in accounting policies and procedures.

Weaknesses in the overall financial reporting processes, financial statement restatements or delays in regulatory filings can be indications of a potential breakdown in internal controls.

Appendix A: Regulated Electric and Gas Utilities Methodology Factor Scorecard

Factor 1a: Legislative and Judicial Underpinnings of the Regulatory Framework (12.5%)

Aaa	Aa	A	Baa
Utility regulation occurs under a fully developed framework that is national in scope based on legislation that provides the utility a nearly absolute monopoly (see note 1) within its service territory, an unquestioned assurance that rates will be set in a manner that will permit the utility to make and recover all necessary investments, an extremely high degree of clarity as to the manner in which utilities will be regulated and prescriptive methods and procedures for setting rates. Existing utility law is comprehensive and supportive such that changes in legislation are not expected to be necessary; or any changes that have occurred have been strongly supportive of utilities credit quality in general and sufficiently forward-looking so as to address problems before they occurred. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility should they occur, including access to national courts, very strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs under a fully developed national, state or provincial framework based on legislation that provides the utility an extremely strong monopoly (see note 1) within its service territory, a strong assurance, subject to limited review, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a very high degree of clarity as to the manner in which utilities will be regulated and reasonably prescriptive methods and procedures for setting rates. If there have been changes in utility legislation, they have been timely and clearly credit supportive of the issuer in a manner that shows the utility has had a strong voice in the process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur including access to national courts, strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs under a well-developed national, state or provincial framework based on legislation that provides the utility a very strong monopoly (see note 1) within its service territory, an assurance, subject to reasonable prudence requirements, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a high degree of clarity as to the manner in which utilities will be regulated, and overall guidance for methods and procedures for setting rates; or (ii) under a new framework where independent and transparent regulation exists in other sectors. If there have been changes in utility legislation, they have been credit supportive or at least balanced for the issuer but potentially less timely, and the utility had a voice in the legislative process. There is either (i) an independent judiciary that can arbitrate disagreements between the regulator and the utility, including access to courts at least at the state or provincial level, reasonably clear judicial precedent in the interpretation of utility laws, and a generally strong rule of law; or (ii) regulation has been applied (under a well-developed framework) in a manner such that redress to an independent arbiter has not been required. We expect these conditions to continue.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation that provides the utility a strong monopoly within its service territory that may have some exceptions such as greater self-generation (see note 1), a general assurance that, subject to prudence requirements that are mostly reasonable, rates will be set in a manner that will permit the utility to make and recover all necessary investments, reasonable clarity as to the manner in which utilities will be regulated and overall guidance for methods and procedures for setting rates; or (ii) under a new framework where independent and transparent regulation exists in other sectors. If there have been changes in utility legislation, they have been credit supportive or at least balanced for the issuer but potentially less timely, and the utility had a voice in the legislative process. There is either (i) an independent judiciary that can arbitrate disagreements between the regulator and the utility, including access to courts at least at the state or provincial level, reasonably clear judicial precedent in the interpretation of utility laws, and a generally strong rule of law; or (ii) regulation has been applied (under a well-developed framework) in a manner such that redress to an independent arbiter has not been required. We expect these conditions to continue.
Ba	B	Caa	
Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory that is generally strong but may have a greater level of exceptions (see note 1), and that, subject to prudence requirements which may be stringent, provides a general assurance (with somewhat less certainty) that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where the jurisdiction has a history of less independent and transparent regulation in other sectors. Either: (i) the judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law; or (ii) where there is no independent arbiter, the regulation has mostly been applied in a manner such redress has not been required. We expect these conditions to continue.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility monopoly within its service territory that is reasonably strong but may have important exceptions, and that, subject to prudence requirements which may be stringent or at times arbitrary, provides more limited or less certain assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect less independent and transparent regulation, based either on the regulator's history in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or the regulator and the utility may not have clear authority or pressure, but there is a reasonably strong rule of law. Alternately, where there is no independent arbiter, the regulation has been applied in a manner that often requires some redress adding more uncertainty to the regulatory framework. There may be a periodic risk of creditor-unfriendly government intervention in utility markets or rate-setting.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory, but with little assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect unpredictable or adverse regulation, based either on the jurisdiction's history of in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or is viewed as not being fully independent of the regulator or other political pressure. Alternately, there may be no redress to an effective independent arbiter. The ability of the utility to enforce its monopoly or prevent uncompensated usage of its system may be limited. There may be a risk of creditor-unfriendly nationalization or other significant intervention in utility markets or rate-setting.	

Note 1: The strength of the monopoly refers to the legal, regulatory and practical obstacles for customers in the utility's territory to obtain service from another provider. Examples of a weakening of the monopoly would include the ability of a city or large user to leave the utility system to set up their own system, the extent to which self-generation is permitted (e.g. cogeneration) and/or encouraged (e.g. net metering, DSM generation). At the lower end of the ratings spectrum, the utility's monopoly may be challenged by pervasive theft and unauthorized use. Since utilities are generally presumed to be monopolies, a strong monopoly position in itself is not sufficient for a strong score in this sub-factor, but a weakening of the monopoly can lower the score.

* 10% weight for issuers that lack generation **0% weight for issuers that lack generation

Factor 1b: Consistency and Predictability of Regulation (12.5%)

Aaa	Aa	A	Baa
The issuer's interaction with the regulator has led to a strong, lengthy track record of predictable, consistent and favorable decisions. The regulator is highly credit supportive of the issuer and utilities in general. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a considerable track record of predominantly predictable and consistent decisions. The regulator is mostly credit supportive of utilities in general and in almost all instances has been highly credit supportive of the issuer. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a track record of largely predictable and consistent decisions. The regulator may be somewhat less credit supportive of utilities in general, but has been quite credit supportive of the issuer in most circumstances. We expect these conditions to continue.	The issuer's interaction with the regulator has led to an adequate track record. The regulator is generally consistent and predictable, but there may be some evidence of inconsistency or unpredictability from time to time, or decisions may at times be politically charged. However, instances of less credit supportive decisions are based on reasonable application of existing rules and statutes and are not overly punitive. We expect these conditions to continue.
Ba	B	Caa	
We expect that regulatory decisions will demonstrate considerable inconsistency or unpredictability or that decisions will be politically charged, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. The regulator may have a history of less credit supportive regulatory decisions with respect to the issuer, but we expect that the issuer will be able to obtain support when it encounters financial stress, with some potentially material delays. The regulator's authority may be eroded at times by legislative or political action. The regulator may not follow the framework for some material decisions.	We expect that regulatory decisions will be largely unpredictable or even somewhat arbitrary, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. However, we expect that the issuer will ultimately be able to obtain support when it encounters financial stress, albeit with material or more extended delays. Alternately, the regulator is untested, lacks a consistent track record, or is undergoing substantial change. The regulator's authority may be eroded on frequent occasions by legislative or political action. The regulator may more frequently ignore the framework in a manner detrimental to the issuer.	We expect that regulatory decisions will be highly unpredictable and frequently adverse, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. Alternately, decisions may have credit supportive aspects, but may often be unenforceable. The regulator's authority may have been seriously eroded by legislative or political action. The regulator may consistently ignore the framework to the detriment of the issuer.	

Factor 2a: Timeliness of Recovery of Operating and Capital Costs (12.5%)

Aaa	Aa	A	Baa
Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous return on all incremental capital investments, with statutory provisions in place to preclude the possibility of challenges to rate increases or cost recovery mechanisms. By statute and by practice, general rate cases are efficient, focused on an impartial review, quick, and permit inclusion of fully forward-looking costs.	Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous or near-contemporaneous return on most incremental capital investments, with minimal challenges by regulators to companies' cost assumptions. By statute and by practice, general rate cases are efficient, focused on an impartial review, of a very reasonable duration before non-appealable interim rates can be collected, and primarily permit inclusion of forward-looking costs.	Automatic cost recovery mechanisms provide full and reasonably timely recovery of fuel, purchased power and all other highly variable operating expenses. Material capital investments may be made under tariff formulas or other rate-making permitting reasonably contemporaneous returns, or may be submitted under other types of filings that provide recovery of cost of capital with minimal delays. Instances of regulatory challenges that delay rate increases or cost recovery are generally related to large, unexpected increases in sizeable construction projects. By statute or by practice, general rate cases are reasonably efficient, primarily focused on an impartial review, of a reasonable duration before rates (either permanent or non-refundable interim rates) can be collected, and permit inclusion of important forward-looking costs.	Fuel, purchased power and all other highly variable expenses are generally recovered through mechanisms incorporating delays of less than one year, although some rapid increases in costs may be delayed longer where such deferrals do not place financial stress on the utility. Incremental capital investments may be recovered primarily through general rate cases with moderate lag, with some through tariff formulas. Alternately, there may be formula rates that are untested or unclear. Potentially greater tendency for delays due to regulatory intervention, although this will generally be limited to rates related to large capital projects or rapid increases in operating costs.
Ba	B	Caa	
There is an expectation that fuel, purchased power or other highly variable expenses will eventually be recovered with delays that will not place material financial stress on the utility, but there may be some evidence of an unwillingness by regulators to make timely rate changes to address volatility in fuel, or purchased power, or other market-sensitive expenses. Recovery of costs related to capital investments may be subject to delays that are somewhat lengthy, but not so pervasive as to be expected to discourage important investments.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to material delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be subject to delays that are material to the issuer, or may be likely to discourage some important investment.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to extensive delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be uncertain, subject to delays that are extensive, or that may be likely to discourage even necessary investment.	

Note: Tariff formulas include formula rate plans as well as trackers and riders related to capital investment.

Factor 2b: Sufficiency of Rates and Returns (12.5%)

Aaa	Aa	A	Baa
Sufficiency of rates to cover costs and attract capital is (and will continue to be) unquestioned.	Rates are (and we expect will continue to be) set at a level that permits full cost recovery and a fair return on all investments, with minimal challenges by regulators to companies' cost assumptions. This will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are strong relative to global peers.	Rates are (and we expect will continue to be) set at a level that generally provides full cost recovery and a fair return on investments, with limited instances of regulatory challenges and disallowances. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally above average relative to global peers, but may at times be average.	Rates are (and we expect will continue to be) set at a level that generally provides full operating cost recovery and a mostly fair return on investments, but there may be somewhat more instances of regulatory challenges and disallowances, although ultimate rate outcomes are sufficient to attract capital without difficulty. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are average relative to global peers, but may at times be somewhat below average.
Ba	B	Caa	
Rates are (and we expect will continue to be) set at a level that generally provides recovery of most operating costs but return on investments may be less predictable, and there may be decidedly more instances of regulatory challenges and disallowances, but ultimate rate outcomes are generally sufficient to attract capital. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally below average relative to global peers, or where allowed returns are average but difficult to earn.	We expect rates will be set at a level that at times fails to provide recovery of costs other than cash costs, and regulators may engage in somewhat arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based much more on politics than on prudence reviews. Return on investments may be set at levels that discourage investment. We expect that rate outcomes may be difficult or uncertain, negatively affecting continued access to capital.	We expect rates will be set at a level that often fails to provide recovery of material costs, and recovery of cash costs may also be at risk. Regulators may engage in more arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based primarily on politics. Return on investments may be set at levels that discourage necessary maintenance investment. We expect that rate outcomes may often be punitive or highly uncertain, with a markedly negative impact on access to capital. Alternately, the tariff formula may fail to take into account significant cash cost components, and/or remuneration of investments may be primarily unfavorable.	
Alternately, the tariff formula may not take into account all cost components and/or remuneration of investments may be unclear or at times unfavorable.			

Factor 3: Diversification (10%)

Weighting 10%	Sub-Factor Weighting	Aaa	Aa	A	Baa
Market Position	5% *	A very high degree of multinational and regional diversity in terms of regulatory regimes and/or service territory economies.	Material operations in three or more nations or substantial geographic regions providing very good diversity of regulatory regimes and/or service territory economies.	Material operations in two to three nations, states, provinces or regions that provide good diversity of regulatory regimes and service territory economies. Alternately, operates within a single regulatory regime with low volatility, and the service territory economy is robust, has a very high degree of diversity and has demonstrated resilience in economic cycles.	May operate under a single regulatory regime viewed as having low volatility, or where multiple regulatory regimes are not viewed as providing much diversity. The service territory economy may have some concentration and cyclical, but is sufficiently resilient that it can absorb reasonably foreseeable increases in utility rates.
Generation and Fuel Diversity	5% **	A high degree of diversity in terms of generation and/or fuel sources such that the utility and rate-payers are well insulated from commodity price changes, no generation concentration, and very low exposures to Challenged or Threatened Sources (see definitions below).	Very good diversification in terms of generation and/or fuel sources such that the utility and rate-payers are affected only minimally by commodity price changes, little generation concentration, and low exposures to Challenged or Threatened Sources.	Good diversification in terms of generation and/or fuel sources such that the utility and rate-payers have only modest exposure to commodity price changes; however, may have some concentration in a source that is neither Challenged nor Threatened. Exposure to Threatened Sources is low. While there may be some exposure to Challenged Sources, it is not a cause for concern.	Adequate diversification in terms of generation and/or fuel sources such that the utility and rate-payers have moderate exposure to commodity price changes; however, may have some concentration in a source that is Challenged. Exposure to Threatened Sources is moderate, while exposure to Challenged Sources is manageable.
Sub-Factor Weighting					
		Ba	B	Caa	Definitions
Market Position	5% *	Operates in a market area with somewhat greater concentration and cyclical in the service territory economy and/or exposure to storms and other natural disasters, and thus less resilience to absorbing reasonably foreseeable increases in utility rates. May show somewhat greater volatility in the regulatory regime(s).	Operates in a limited market area with material concentration and more severe cyclical in service territory economy such that cycles are of materially longer duration or reasonably foreseeable increases in utility rates could present a material challenge to the economy. Service territory may have geographic concentration that limits its resilience to storms and other natural disasters, or may be an emerging market. May show decided volatility in the regulatory regime(s).	Operates in a concentrated economic service territory with pronounced concentration, macroeconomic risk factors, and/or exposure to natural disasters.	Challenged Sources are generation plants that face higher but not insurmountable economic hurdles resulting from penalties or taxes on their operation, or from environmental upgrades that are required or likely to be required. Some examples are carbon-emitting plants that incur carbon taxes, plants that must buy emissions credits to operate, and plants that must install environmental equipment to continue to operate, in each where the taxes/credits/upgrades are sufficient to have a material impact on those plants' competitiveness relative to other generation types or on the utility's rates, but where the impact is not so severe as to be likely require plant closure.
Generation and Fuel Diversity	5% **	Modest diversification in generation and/or fuel sources such that the utility or rate-payers have greater exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be more pronounced, but the utility will be able to access alternative sources without undue financial stress.	Operates with little diversification in generation and/or fuel sources such that the utility or rate-payers have high exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be high, and accessing alternate sources may be challenging and cause more financial stress, but ultimately feasible.	Operates with high concentration in generation and/or fuel sources such that the utility or rate-payers have exposure to commodity price shocks. Exposure to Challenged and Threatened Sources may be very high, and accessing alternate sources may be highly uncertain.	Threatened Sources are generation plants that are not currently able to operate due to major unplanned outages or issues with licensing or other regulatory compliance, and plants that are highly likely to be required to de-activate, whether due to the effectiveness of currently existing or expected rules and regulations or due to economic challenges.

* 10% weight for issuers that lack generation **0% weight for issuers that lack generation

Factor 4: Financial Strength

Weighting 40%	Sub-Factor Weighting						
		Aaa	Aa	A	Baa	Ba	B
CFO pre-WC + Interest / Interest	7.5%	≥ 8x	6x - 8x	4.5x - 6x	3x - 4.5x	2x - 3x	1x - 2x
							Caa
							< 1x
CFO pre-WC / Debt	15%	Standard Grid ≥ 40%	30% - 40%	22% - 30%	13% - 22%	5% - 13%	1% - 5%
		Low Business Risk Grid ≥ 38%	27% - 38%	19% - 27%	11% - 19%	5% - 11%	1% - 5%
							< 1%
							< 1%
CFO pre-WC - Dividends / Debt	10%	Standard Grid ≥ 35%	25% - 35%	17% - 25%	9% - 17%	0% - 9%	(5%) - 0%
		Low Business Risk Grid ≥ 34%	23% - 34%	15% - 23%	7% - 15%	0% - 7%	(5%) - 0%
							< (5%)
							< (5%)
Debt / Capitalization	7.5%	Standard Grid < 25%	25% - 35%	35% - 45%	45% - 55%	55% - 65%	65% - 75%
		Low Business Risk Grid < 29%	29% - 40%	40% - 50%	50% - 59%	59% - 67%	67% - 75%
							≥ 75%
							≥ 75%

Appendix B: Approach to Ratings within a Utility Family

Typical Composition of a Utility Family

A typical utility company structure consists of a holding company ("HoldCo") that owns one or more operating subsidiaries (each an "OpCo"). OpCos may be regulated utilities or non-utility companies. Financing of these entities varies by region, in part due to the regulatory framework. A HoldCo typically has no operations – its assets are mostly limited to its equity interests in subsidiaries, and potentially other investments in subsidiaries or minority interests in other companies. However, in certain cases there may be material operations at the HoldCo level. Financing can occur primarily at the OpCo level, primarily at the HoldCo level, or at both HoldCo and OpCos in varying proportions. When a HoldCo has multiple utility OpCos, they will often be located in different regulatory jurisdictions. A HoldCo may have both levered and unlevered OpCos.

General Approach to a Utility Family

In our analysis, we generally consider the stand-alone credit profile of an OpCo and the credit profile of its ultimate parent HoldCo (and any intermediate HoldCos), as well as the profile of the family as a whole, while acknowledging that these elements can have cross-family credit implications in varying degrees, principally based on the regulatory framework of the OpCos and the financing model (which has often developed in response to the regulatory framework).

In addition to considering individual OpCos under this (or another applicable) methodology, we typically¹⁷ approach a HoldCo rating by assessing the qualitative and quantitative factors in this methodology for the consolidated entity and each of its utility subsidiaries. Ratings of individual entities in the issuer family may be pulled up or down based on the interrelationships among the companies in the family and their relative credit strength.

In considering how closely aligned or how differentiated ratings should be among members of a utility family, we assess a variety of factors, including:

- » Regulatory or other barriers to cash movement among OpCos and from OpCos to HoldCo
- » Differentiation of the regulatory frameworks of the various OpCos
- » Specific ring-fencing provisions at particular OpCos
- » Financing arrangements – for instance, each OpCo may have its own financing arrangements, or the sole liquidity facility may be at the parent; there may be a liquidity pool among certain but not all members of the family; certain members of the family may better be able to withstand a temporary hiatus of external liquidity or access to capital markets
- » Financial covenants and the extent to which an Event of Default by one OpCo limits availability of liquidity to another member of the family
- » The extent to which higher leverage at one entity increases default risk for other members of the family
- » An entity's exposure to or insulation from an affiliate with high business risk
- » Structural features or other limitations in financing agreements that restrict movements of funds, investments, provision of guarantees or collateral, etc.
- » The relative size and financial significance of any particular OpCo to the HoldCo and the family

¹⁷ See paragraph at the end of this section for approaches to Hybrid HoldCos.

See also those factors noted in "Notching for Structural Subordination of Holding Companies".

Our approach to a Hybrid HoldCo (see definition in Appendix C) depends in part on the importance of its non-utility operations and the availability of information on individual businesses. If the businesses are material and their individual results are fully broken out in financial disclosures, we may be able to assess each material business individually by reference to the relevant Moody's methodologies to arrive at a composite assessment for the combined businesses.¹⁸ If non-utility operations are material but are not broken out in financial disclosures, we may look at the consolidated entity under more than one methodology. When non-utility operations are less material but could still impact the overall credit profile, the difference in business risks and our estimation of their impact on financial performance will be qualitatively incorporated in the rating.

Higher Barriers to Cash Movement with Financing Predominantly at the OpCos

Where higher barriers to cash movement exist on an OpCo or OpCos due to the regulatory framework or debt structural features, ratings among family members are likely to be more differentiated. The degree of separateness may be greater or smaller and is assessed on a case-by-case basis, because situational considerations are important.

One area we consider is financing arrangements. For instance, there will tend to be greater differentiation if each member of a family has its own bank credit facilities and difficulties experienced by one entity would not trigger events of default for other entities. While the existence of a money pool might appear to reduce separateness between the participants, there may be regulatory barriers within money pools that preserve separateness. For instance, non-utility entities may have access to the pool only as a borrower, only as a lender, and even the utility entities may have regulatory limits on their borrowings from the pool or their credit exposures to other pool members. If the only source of external liquidity for a money pool is borrowings by the HoldCo under its bank credit facilities, there would be less separateness, especially if the utilities were expected to depend on that liquidity source. However, the ability of an OpCo to finance itself by accessing capital markets must also be considered. Inter-company tax agreements can also have an impact on our view of how separate the risks of default are.

For a HoldCo, the greater the regulatory, economic, and geographic diversity of its OpCos, the greater its potential separation from the default probability of any individual subsidiary. Conversely, if a HoldCo's actions have made it clear that the HoldCo will provide support for an OpCo encountering some financial stress (for instance, due to delays and/or cost over-runs on a major construction project), we would be likely to perceive less separateness.

Even where high barriers to cash movement exist, onerous leverage at a parent company may not only give rise to greater notching for structural subordination at the parent, it may also pressure an OpCo's rating, especially when there is a clear dependence on an OpCo's cash flow to service parent debt.

While most of the regulatory barriers to cash movement are very real, they are not absolute. Furthermore, while it is not usually in the interest of an insolvent parent or its creditors to bring an operating utility into a bankruptcy proceeding, such an occurrence is not impossible.

The greatest separateness occurs where strong regulatory insulation is supplemented by effective ring-fencing provisions that fully separate the management and operations of the OpCo from the rest of the family and limit the parent's ability to cause the OpCo to commence bankruptcy proceedings as well as limiting dividends and cash transfers. Typically, most entities in US utility families (including HoldCos and

¹⁸ A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

OpCos) are rated within 3 notches of each other. However, it is possible for the HoldCo and OpCos in a family to have much wider notching due to the combination of regulatory imperatives and strong ring-fencing that includes a significant minority shareholder who must agree to important corporate decisions, including a voluntary bankruptcy filing.

Lower Barriers to Cash Movement with Financing Predominantly at the OpCos

Our approach to rating issuers within a family where there are lower regulatory barriers to movement of cash from OpCos to HoldCos places greater emphasis on the credit profile of the consolidated group. Individual OpCos are considered based on their individual characteristics and their importance to the family, and their assigned ratings are typically banded closely around the consolidated credit profile of the group due to the expectation that cash will transit relatively freely among family entities.

Some utilities may have OpCos in jurisdictions where cash movement among certain family members is more restricted by the regulatory framework, while cash movement from and/or among OpCos in other jurisdictions is less restricted. In these situations, OpCos with more restrictions may vary more widely from the consolidated credit profile while those with fewer restrictions may be more tightly banded around the other entities in the corporate family group.

Appendix C: Brief Descriptions of the Types of Companies Rated Under This Methodology

The following describes the principal categories of companies rated under this methodology:

Vertically Integrated Utility: Vertically integrated utilities are regulated electric or combination utilities (see below) that own generation, distribution and (in most cases) electric transmission assets. Vertically integrated utilities are generally engaged in all aspects of the electricity business. They build power plants, procure fuel, generate power, build and maintain the electric grid that delivers power from a group of power plants to end-users (including high and low voltage lines, transformers and substations), and generally meet all of the electric needs of the customers in a specific geographic area (also called a service territory). The rates or tariffs for all of these monopolistic activities are set by the relevant regulatory authority.

Transmission & Distribution Utility: Transmission & Distribution utilities (T&Ds) typically operate in deregulated markets where generation is provided under a competitive framework. T&Ds own and operate the electric grid that transmits and/or distributes electricity within a specific state or region.

T&Ds provide electrical transportation and distribution services to carry electricity from power plants and transmission lines to retail, commercial, and industrial customers. T&Ds are typically responsible for billing customers for electric delivery and/or supply, and most have an obligation to provide a standard supply or provider-of-last-resort (POLR) service to customers that have not switched to a competitive supplier. These factors distinguish T&Ds from Networks, whose customers are retail electric suppliers and/or other electricity companies. In a smaller number of cases, T&Ds rated under this methodology may not have an obligation to provide POLR services, but are regulated in sub-sovereign jurisdictions. The rates or tariffs for these monopolistic T&D activities are set by the relevant regulatory authority.

Local Gas Distribution Company: Distribution is the final step in delivering natural gas to customers. While some large industrial, commercial, and electric generation customers receive natural gas directly from high capacity pipelines that carry gas from gas producing basins to areas where gas is consumed, most other users receive natural gas from their local gas utility, also called a local distribution company (LDC). LDCs are regulated utilities involved in the delivery of natural gas to consumers within a specific geographic area. Specifically, LDCs typically transport natural gas from delivery points located on large-diameter pipelines (that usually operate at fairly high pressure) to households and businesses through thousands of miles of small-diameter distribution pipe (that usually operate at fairly low pressure). LDCs are typically responsible for billing customers for gas delivery and/or supply, and most also have the responsibility to procure gas for at least some of their customers, although in some markets gas supply to all customers is on a competitive basis. These factors distinguish LDCs from gas networks, whose customers are retail gas suppliers and/or other natural gas companies. The rates or tariffs for these monopolistic activities are set by the relevant regulatory authority.

Integrated Gas Utility: Integrated gas regulated utilities are regulated utilities that deliver gas to all end users in a particular service territory by sourcing the commodity; operating transport infrastructure that often combines high pressure pipelines with low pressure distribution systems and, in some cases, gas storage, re-gasification or other related facilities; and performing other supply-related activities, such as customer billing and metering. The rates or tariffs for the totality of these activities are set by the relevant regulatory authority. Many integrated gas utilities are national in scope.

Combination Utility: Combination utilities are those that combine an LDC or Integrated Gas Utility with either a vertically integrated utility or a T&D utility. The rates or tariffs for these monopolistic activities are set by the relevant regulatory authority.

Regulated Generation Utility: Regulated generation utilities (Regulated Gencos) are utilities that almost exclusively have generation assets, but their activities are generally regulated like those of vertically integrated utilities. This typically means that the purchasers of their output (typically other investor-owned, municipal or cooperative utilities) pay a regulated rate based on the total allowed costs of the Regulated Genco, including a return on equity based on a capital structure designated by the regulator. Companies that have been included in this group include certain generation companies that are not rate regulated in the usual sense of recovering costs plus a regulated rate of return on either equity or asset value. Instead, we have looked at a combination of governmental action with respect to setting feed-in tariffs and directives on how much generation will be built (or not built) in combination with a generally high degree of government ownership, and we have concluded that these companies are currently best rated under this methodology. Future evolution in our view of the operating and/or regulatory environment of these companies could lead us to conclude that they may be more appropriately rated under a related methodology.¹⁹

Independent System Operator: An Independent System Operator (ISO) is an organization formed in certain regional electricity markets to act as the sole chief coordinator of an electric grid. In the areas where an ISO is established, it coordinates, controls and monitors the operation of the electrical power system to assure that electric supply and demand are balanced at all times, and, to the extent possible, that electric demand is met with the lowest-cost sources. ISOs seek to assure adequate transmission and generation resources, usually by identifying new transmission needs and planning for a generation reserve margin above expected peak demand. In regions where generation is competitive, they also seek to establish rules that foster a fair and open marketplace, and they may conduct price-setting auctions for energy and/or capacity. The generation resources that an ISO coordinates may belong to vertically integrated utilities or to independent power producers. ISOs may not be rate-regulated in the traditional sense, but fall under governmental oversight. All participants in the regional grid are required to pay a fee or tariff (often volumetric) to the ISO that is designed to recover its costs, including costs of investment in systems and equipment needed to fulfill their function. ISOs may be for profit or not-for-profit entities.

Transmission-Only Utility: Transmission-only utilities are solely focused on owning and operating transmission assets. The transmission lines these utilities own are typically high-voltage and allow energy producers to transport electric power over long distances from where it is generated (or received) to the transmission or distribution system of a T&D or vertically integrated utility. Unlike most of the other utilities rated under this methodology, transmission-only utilities primarily provide services to other utilities and ISOs. Transmission-only utilities in most parts of the world other than the US have typically been rated under a different methodology.²⁰

Utility Holding Company (Utility HoldCo): As detailed in Appendix B, regulated electric and gas utilities are often part of corporate families under a parent holding company. The operating subsidiaries of Utility HoldCos are overwhelmingly regulated electric and gas utilities.

Hybrid Holding Company (Hybrid HoldCo): Some utility families contain a mix of regulated electric and gas utilities and other types of companies, but the regulated electric and gas utilities represent the majority of the consolidated cash flows, assets and debt. The parent company is thus a Hybrid HoldCo.

¹⁹ For more information, see our methodology that describes our general approach for assessing unregulated utilities and unregulated power companies. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

²⁰ For more information, see our methodology that describes our general approach for assessing regulated electric and gas networks. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Appendix D: Regional and Other Considerations

Notching Considerations for US First Mortgage Bonds

In most regions, our approach to notching between different debt classes of the same regulated utility issuer follows the guidance on notching corporate instrument ratings based on differences in security and priority of claim, including a one notch differential between senior secured and senior unsecured debt.²¹ However, in most cases we have two notches between the first mortgage bonds and senior unsecured debt of regulated electric and gas utilities in the US. Wider notching differentials between debt classes may also be appropriate in speculative-grade issuers.²²

First mortgage bond holders in the US generally benefit from a first lien on most of the fixed assets used to provide utility service, including such assets as generating stations, transmission lines, distribution lines, switching stations and substations, and gas distribution facilities, as well as a lien on franchise agreements. In our view, the critical nature of these assets to the issuers and to the communities they serve has been a major factor that has led to very high recovery rates for this class of debt in situations of default, thereby justifying a two-notch uplift. The combination of the breadth of assets pledged and the bankruptcy-tested recovery experience has been unique to the US.

In some cases, there is only a one-notch differential between US first mortgage bonds and the senior unsecured rating. For instance, this is likely when the pledged property is not considered critical infrastructure for the region, or if the mortgage is materially weakened by carve-outs, lien releases or similar creditor-unfriendly terms.

Securitization

The use of securitization, a financing technique utilizing a discrete revenue stream (typically related to recovery of specifically defined expenses) that is dedicated to servicing specific securitization debt, has primarily been used in the US, where it has been pervasive in the past. The first generation of securitization bonds were primarily related to recovery of the negative difference between the market value of utilities' generation assets and their book value when certain states switched to competitive electric supply markets and utilities sold their generation (so-called stranded costs). This technique was then used for significant storm costs (especially hurricanes) and was eventually broadened to include environmental related expenditures, deferred fuel costs, or even deferred miscellaneous expenses. In its simplest form, a securitization isolates and dedicates a stream of cash flow into a separate special purpose entity (SPE). The SPE uses that stream of revenue and cash flow to provide annual debt service for the securitized debt instrument. Securitization is typically underpinned by specific legislation to segregate the securitization revenues from the utility's revenues to assure their continued collection, and the details of the enabling legislation may vary from state to state. The utility benefits from the securitization because it receives an immediate source of cash (although it gives up the opportunity to earn a return on the corresponding asset), and ratepayers benefit because the cost of the securitized debt is lower than the utility's cost of debt and much lower than its all-in cost of capital, which reduces the revenue requirement associated with the cost recovery.

In the presentation of US securitization debt in published financial ratios, we make our own assessment of the appropriate credit representation but in most cases follow the accounting in audited statements under US Generally Accepted Accounting Principles (GAAP), which in turn considers the terms of enabling

²¹ A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

²² For more information, see our cross-sector methodology that describes general principles related to loss given default for speculative-grade companies. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

legislation. As a result, accounting treatment may vary. In most states, utilities have been required to consolidate securitization debt under GAAP, even though it is technically non-recourse.

In general, we view securitization debt of utilities as being on-credit debt, in part because the rates associated with it reduce the utility's headroom to increase rates for other purposes while keeping all-in rates affordable to customers. Thus, where accounting treatment is off balance sheet, we seek to adjust the company's ratios by including the securitization debt and related revenues for our analysis. Where the securitized debt is on balance sheet, our credit analysis also considers the significance of ratios that exclude securitization debt and related revenues. Since securitization debt amortizes mortgage-style, including it makes ratios look worse in early years (when most of the revenue collected goes to pay interest) and better in later years (when most of the revenue collected goes to pay principal).

Appendix E: Treatment of Power Purchase Agreements ("PPAs")

Although many utilities own and operate power stations, some have entered into PPAs to source electricity from third parties to satisfy retail demand. The motivation for these PPAs may be one or more of the following: to outsource operating risks to parties more skilled in power station operation, to provide certainty of supply, to reduce balance sheet debt, to fix the cost of power, or to comply with regulatory mandates regarding power sourcing, including renewable portfolio standards. While we regard PPAs that reduce operating or financial risk as a credit positive, some aspects of PPAs may negatively affect the credit of utilities. The most conservative treatment would be to treat a PPA as a debt obligation of the utility as, by paying the capacity charge, the utility is effectively providing the funds to service the debt associated with the power station. At the other end of the continuum, the financial obligations of the utility could also be regarded as an ongoing operating cost, with no long-term capital component recognized.

Under most PPAs, a utility is obliged to pay a capacity charge to the power station owner (which may be another utility or an Independent Power Producer – IPP); this charge typically covers a portion of the IPP's fixed costs in relation to the power available to the utility. These fixed payments usually help to cover the IPP's debt service and are made irrespective of whether the utility calls on the IPP to generate and deliver power. When the utility requires generation, a further energy charge, to cover the variable costs of the IPP, will also typically be paid by the utility. Some other similar arrangements are characterized as tolling agreements, or long-term supply contracts, but most have similar features to PPAs and thus we analyze them as PPAs.

PPAs are recognized qualitatively to be a future use of cash whether or not they are treated as debt-like obligations in financial ratios

The starting point of our analysis is the issuer's audited financial statements – we consider whether the utility's accountants determine that the PPA should be treated as a debt equivalent, a capitalized lease, an operating lease, or in some other manner. PPAs have a wide variety of operational and financial terms, and it is our understanding that accountants are required to have a very granular view into the particular contractual arrangements in order to account for these PPAs in compliance with applicable accounting rules and standards. However, accounting treatment for PPAs may not be entirely consistent across US GAAP, IFRS or other accounting frameworks. In addition, we may consider that factors not incorporated into the accounting treatment may be relevant (which may include the scale of PPA payments, their regulatory treatment including cost recovery mechanisms, or other factors that create financial or operational risk for the utility that is greater, in our estimation, than the benefits received). When the accounting treatment of a PPA is a debt or lease equivalent (such that it is reported on the balance sheet, or disclosed as an operating lease and thus included in our adjusted debt calculation), we generally do not make adjustments to remove the PPA from the balance sheet.

However, in relevant circumstances we consider making adjustments that impute a debt equivalent to PPAs that are off-balance sheet for accounting purposes.

Regardless of whether we consider that a PPA warrants or does not warrant treatment as a debt obligation, we assess the totality of the impact of the PPA on the issuer's probability of default. Costs of a PPA that cannot be recovered in retail rates creates material risk, especially if they also cannot be recovered through market sales of power.

Additional considerations for PPAs

PPAs have a wide variety of financial and regulatory characteristics, and we may treat each particular circumstance differently. Factors which determine where on the continuum we treat a particular PPA include the following:

- » Risk management: An overarching principle is that PPAs have normally been used by utilities as a risk management tool and we recognize that this is the fundamental reason for their existence. Thus, we will not automatically penalize utilities for entering into contracts for the purpose of reducing risk associated with power price and availability. Rather, we will look at the aggregate commercial position, evaluating the risk to a utility's purchase and supply obligations. In addition, PPAs are similar to other long-term supply contracts used by other industries and their treatment should not therefore be fundamentally different from that of other contracts of a similar nature.
- » Pass-through capability: Some utilities have the ability to pass through the cost of purchasing power under PPAs to their customers. As a result, the utility takes no risk that the cost of power is greater than the retail price it will receive. Accordingly we regard these PPA obligations as operating costs with no long-term debt-like attributes. PPAs with no pass-through ability have a greater risk profile for utilities. In some markets, the ability to pass through costs of a PPA is enshrined in the regulatory framework, and in others can be dictated by market dynamics. As a market becomes more competitive or if regulatory support for cost recovery deteriorates, the ability to pass through costs may decrease and, as circumstances change, our treatment of PPA obligations will alter accordingly.
- » Price considerations: The price of power paid by a utility under a PPA can be substantially above or below the market price of electricity. A below-market price will motivate the utility to purchase power from the IPP in excess of its retail requirements, and to sell excess electricity in the spot market. This can be a significant source of cash flow for some utilities. On the other hand, utilities that are compelled to pay capacity payments to IPPs when they have no demand for the power or at an above-market price may suffer a financial burden if they do not get full recovery in retail rates. We will focus particularly on PPAs that have mark-to-market losses, which typically indicates that they have a material impact on the utility's cash flow.
- » Excess Reserve Capacity: In some jurisdictions, there is substantial reserve capacity and thus a significant probability that the electricity available to a utility under PPAs will not be required by the market. This increases the risk to the utility that capacity payments will need to be made when there is no demand for the power. We may determine that all of a utility's PPAs represent excess capacity, or that a portion of PPAs are needed for the utility's supply obligations plus a normal reserve margin, while the remaining portion represents excess capacity. In the latter case, we may impute debt to specific PPAs that are excess or take a proportional approach to all of the utility's PPAs.
- » Risk-sharing: Utilities that own power plants bear the associated operational, fuel procurement and other risks. These must be balanced against the financial and liquidity risk of contracting for the purchase of power under a PPA. We will examine on a case-by case basis the relative credit risk associated with PPAs in comparison to plant ownership.
- » Purchase requirements: Some PPAs are structured with either options or requirements to purchase the asset at the end of the PPA term. If the utility has an economically meaningful requirement to purchase, we would most likely consider it to be a debt obligation. In most such cases, the obligation would already receive on-balance sheet treatment under relevant accounting standards.
- » Default provisions: In most cases, the remedies for default under a PPA do not include acceleration of amounts due, and in many cases PPAs would not be considered as debt in a bankruptcy scenario and could potentially be cancelled. Thus, PPAs may not materially increase Loss Given Default for the

utility. In addition, PPAs are not typically considered debt for cross-default provisions under a utility's debt and liquidity arrangements. However, the existence of non-standard default provisions that are debt-like would have a large impact on our treatment of a PPA. In addition, payments due under PPAs are senior unsecured obligations, and any inability of the utility to make them materially increases default risk.

Each of these factors will be considered by our analysts and a decision will be made as to the importance of the PPA to the risk analysis of the utility.

Methods for estimating a liability amount for PPAs

According to the weighting and importance of the PPA to each utility and the level of disclosure, we may approximate a debt obligation equivalent for PPAs using one or more of the methods discussed below. In each case, we look holistically at the PPA's credit impact on the utility, including the ability to pass through costs and curtail payments, the materiality of the PPA obligation to the overall business risk and cash flows of the utility, operational constraints that the PPA imposes, the maturity of the PPA obligation, the impact of purchased power on market-based power sales (if any) that the utility will engage in, and our view of future market conditions and volatility.

- » Operating Cost: If a utility enters into a PPA for the purpose of providing an assured supply and there is reasonable assurance that regulators will allow the costs to be recovered in regulated rates, we may view the PPA as being most akin to an operating cost. Provided that the accounting treatment for the PPA is, in this circumstance, off-balance sheet, we will most likely make no adjustment to bring the obligation onto the utility's balance sheet.
- » Annual Obligation x 6: In some situations, the PPA obligation may be estimated by multiplying the annual payments by a factor of six (in most cases). This method is sometimes used in the capitalization of operating leases. This method may be used as an approximation where the analyst determines that the obligation is significant but cannot otherwise be quantified due to limited information.
- » Net Present Value: Where the analyst has sufficient information, we may add the NPV of the stream of PPA payments to the debt obligations of the utility. The discount rate used will be our estimate of the cost of capital of the utility.
- » Debt Look-Through: In some circumstances, where the debt incurred by the IPP is directly related to the off-taking utility, there may be reason to allocate the entire debt (or a proportional part related to share of power dedicated to the utility) of the IPP to that of the utility.
- » Mark-to-Market: In situations in which we believe that the PPA prices exceed the market price and thus will create an ongoing liability for the utility, we may use a net mark-to-market method, in which the NPV of the utility's future out-of-the-money net payments will be added to its total debt obligations.
- » Consolidation: In some instances where the IPP is wholly dedicated to the utility, it may be appropriate to consolidate the debt and cash flows of the IPP with that of the utility. If the utility purchases only a portion of the power from the IPP, then that proportion of debt might be consolidated with the utility.

If we have determined to impute debt to a PPA for which the accounting treatment is not on-balance sheet, we will in some circumstances use more than one method to estimate the debt equivalent obligations imposed by the PPA, and compare results. If circumstances (including regulatory treatment or market conditions) change over time, the approach that is used may also vary.

Moody's Related Publications

Credit ratings are primarily determined by sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. An index of sector and cross-sector credit rating methodologies can be found [here](#).

For data summarizing the historical robustness and predictive power of credit ratings, please click [here](#).

For further information, please refer to *Rating Symbols and Definitions*, which is available [here](#).

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**MP Exhibit ____ (Taran), Direct Schedule 2:
Moody's Credit Report on ALLETE, Inc.
(Apr. 30, 2020)**

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Moody's Credit Report on ALLETE, Inc.
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Moody's Credit Report on ALLETE, Inc.
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Moody's Credit Report on ALLETE, Inc.
(June 2, 2023)**



Criteria | Corporates | Utilities:

Key Credit Factors For The Regulated Utilities Industry

November 19, 2013

(Editor's Note: On July 7, 2021, we republished this criteria article to correct an error in paragraph 80. See the "Revisions And Updates" section for details.)

1. This article presents S&P Global Ratings' methodology and assumptions for Regulated Utilities. This article relates to "Corporate Methodology" and "Principles Of Credit Ratings."
2. This paragraph has been deleted.

SCOPE OF THE CRITERIA

3. These criteria apply to entities where regulated utilities represent a material part of their business, other than U.S. public power, water, sewer, gas, and electric cooperative utilities that are owned by federal, state, or local governmental bodies or by ratepayers. A regulated utility is defined as a corporation that offers an essential or near-essential infrastructure product, commodity, or service with little or no practical substitute (mainly electricity, water, and gas), a business model that is shielded from competition (naturally, by law, shadow regulation, or by government policies and oversight), and is subject to comprehensive regulation by a regulatory body or implicit oversight of its rates (sometimes referred to as tariffs), service quality, and terms of service. The regulators base the rates that they set on some form of cost recovery, including an economic return on assets, rather than relying on a market price. The regulated operations can range from individual parts of the utility value chain (water, gas, and electricity networks or "grids," electricity generation, retail operations, etc.) to the entire integrated chain, from procurement to sales to the end customer. In some jurisdictions, our view of government support can also affect the final rating outcome, as per our government-related entity criteria (see "General Criteria: Rating Government-Related Entities: Methodology and Assumptions").

SUMMARY OF THE CRITERIA

4. This article presents S&P Global Ratings criteria for analyzing regulated utilities, applying its corporate criteria. The criteria for evaluating the competitive position of regulated utilities amend and partially supersede the "Competitive Position" section of the corporate criteria when evaluating these entities. The criteria for determining the cash flow leverage assessment partially supersede the "Cash Flow/Leverage" section of the corporate criteria for the purpose of evaluating regulated utilities, specifically, the conditions to apply low, medial, and standard

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volatility tables. The section on liquidity for regulated utilities partially amends existing criteria. All other sections of the corporate criteria apply to the analysis of regulated utilities.

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METHODOLOGY

Part I--Business Risk Analysis

Industry risk

7. The industry risk is assessed by applying S&P Global Ratings' criteria for assessing industry risk (see "Methodology: Industry Risk"). For the most recent assessments for the regulated utilities industry, see "Industry Risk Assessments Update," which is updated from time to time.
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B. Country risk

16. In assessing "country risk" for a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

C. Competitive position

17. In the corporate criteria, competitive position is assessed as ('1') excellent, ('2') strong, ('3') satisfactory, ('4') fair, ('5') weak, or ('6') vulnerable.
18. The analysis of competitive position includes a review of:
 - Competitive advantage,
 - Scale, scope, and diversity,
 - Operating efficiency, and
 - Profitability.
19. In the corporate criteria we assess the strength of each of the first three components. Each component is assessed as either: (1) strong, (2) strong/adequate, (3) adequate, (4) adequate/weak, or (5) weak. After assessing these components, we determine the preliminary competitive position assessment by ascribing a specific weight to each component. The applicable

weightings will depend on the company's Competitive Position Group Profile. The group profile for regulated utilities is "National Industries & Utilities," with a weighting of the three components as follows: competitive advantage (60%), scale, scope, and diversity (20%), and operating efficiency (20%). Profitability is assessed by combining two sub-components: level of profitability and the volatility of profitability.

20. "Competitive advantage" cannot be measured with the same sub-factors as competitive firms because utilities are not primarily subject to influence of market forces. Therefore, these criteria supersede the "competitive advantage" section of the corporate criteria. We analyze instead a utility's "regulatory advantage" (section 1 below).

Assessing regulatory advantage

21. The regulatory framework/regime's influence is of critical importance when assessing regulated utilities' credit risk because it defines the environment in which a utility operates and has a significant bearing on a utility's financial performance.
22. We base our assessment of the regulatory framework's relative credit supportiveness on our view of how regulatory stability, efficiency of tariff setting procedures, financial stability, and regulatory independence protect a utility's credit quality and its ability to recover its costs and earn a timely return. Our view of these four pillars is the foundation of a utility's regulatory support. We then assess the utility's business strategy, in particular its regulatory strategy and its ability to manage the tariff-setting process, to arrive at a final regulatory advantage assessment.
23. When assessing regulatory advantage, we first consider four pillars and sub-factors that we believe are key for a utility to recover all its costs, on time and in full, and earn a return on its capital employed:
24. Regulatory stability:
- Transparency of the key components of the rate setting and how these are assessed
 - Predictability that lowers uncertainty for the utility and its stakeholders
 - Consistency in the regulatory framework over time
25. Tariff-setting procedures and design:
- Recoverability of all operating and capital costs in full
 - Balance of the interests and concerns of all stakeholders affected
 - Incentives that are achievable and contained
26. Financial stability:
- Timeliness of cost recovery to avoid cash flow volatility
 - Flexibility to allow for recovery of unexpected costs if they arise
 - Attractiveness of the framework to attract long-term capital
 - Capital support during construction to alleviate funding and cash flow pressure during periods of heavy investments
27. Regulatory independence and insulation:
- Market framework and energy policies that support long-term financial stability of the utilities and that is clearly enshrined in law and separates the regulator's powers

- Risks of political intervention is absent so that the regulator can efficiently protect the utility's credit profile even during a stressful event

28. We have summarized the key characteristics of the assessments for regulatory advantage in table 1.

Table 1

Preliminary Regulatory Advantage Assessment

Qualifier	What it means	Guidance
Strong	The utility has a major regulatory advantage due to one or a combination of factors that support cost recovery and a return on capital combined with lower than average volatility of earnings and cash flows.	The utility operates in a regulatory climate that is transparent, predictable, and consistent from a credit perspective.
	There are strong prospects that the utility can sustain this advantage over the long term.	The utility can fully and timely recover all its fixed and variable operating costs, investments and capital costs (depreciation and a reasonable return on the asset base).
	This should enable the utility to withstand economic downturns and political risks better than other utilities.	The tariff set may include a pass-through mechanism for major expenses such as commodity costs, or a higher return on new assets, effectively shielding the utility from volume and input cost risks.
		Any incentives in the regulatory scheme are contained and symmetrical.
		The tariff set includes mechanisms allowing for a tariff adjustment for the timely recovery of volatile or unexpected operating and capital costs.
		There is a track record of earning a stable, compensatory rate of return in cash through various economic and political cycles and a projected ability to maintain that record.
		There is support of cash flows during construction of large projects, and pre-approval of capital investment programs and large projects lowers the risk of subsequent disallowances of capital costs.
Adequate	The utility has some regulatory advantages and protection, but not to the extent that it leads to a superior business model or durable benefit.	It operates in a regulatory environment that is less transparent, less predictable, and less consistent from a credit perspective.
	The utility has some but not all drivers of well-managed regulatory risk. Certain regulatory factors support the business's long-term stability and viability but could result in periods of below-average levels of profitability and greater profit volatility. However, overall these regulatory drivers are partially offset by the utility's disadvantages or lack of sustainability of other factors.	The utility is exposed to delays or is not, with sufficient certainty, able to recover all of its fixed and variable operating costs, investments, and capital costs (depreciation and a reasonable return on the asset base) within a reasonable time.

Table 1

Preliminary Regulatory Advantage Assessment (cont.)

Qualifier	What it means	Guidance
		Incentive ratemaking practices are asymmetrical and material, and could detract from credit quality.
		The utility is exposed to the risk that it doesn't recover unexpected or volatile costs in a full or less than timely manner due to lack of flexible reopeners or annual revenue adjustments.
		There is an uneven track record of earning a compensatory rate of return in cash through various economic and political cycles and a projected ability to maintain that record.
		There is little or no support of cash flows during construction, and investment decisions on large projects (and therefore the risk of subsequent disallowances of capital costs) rest mostly with the utility.
		The utility operates under a regulatory system that is not sufficiently insulated from political intervention and is sometimes subject to overt political influence.
Weak	The utility suffers from a complete breakdown of regulatory protection that places the utility at a significant disadvantage.	The utility operates in an opaque regulatory climate that lacks transparency, predictability, and consistency.
	The utility's regulatory risk is such that the long-term cost recovery and investment return is highly uncertain and materially delayed, leading to volatile or weak cash flows. There is the potential for material stranded assets with no prospect of recovery.	The utility cannot fully and/or timely recover its fixed and variable operating costs, investments, and capital costs (depreciation and a reasonable return on the asset base).
		There is a track record of earning minimal or negative rates of return in cash through various economic and political cycles and a projected inability to improve that record sustainably.
		The utility must make significant capital commitments with no solid legal basis for the full recovery of capital costs.
		Ratemaking practices actively harm credit quality.
		The utility is regularly subject to overt political influence.

29. After determining the preliminary regulatory advantage assessment, we then assess the utility's business strategy. Most importantly, this factor addresses the effectiveness of a utility's management of the regulatory risk in the jurisdiction(s) where it operates. In certain jurisdictions, a utility's regulatory strategy and its ability to manage the tariff-setting process effectively so that revenues change with costs can be a compelling regulatory risk factor. A utility's approach and strategies surrounding regulatory matters can create a durable "competitive advantage" that differentiates it from peers, especially if the risk of political intervention is high. The assessment of a utility's business strategy is informed by historical performance and its forward-looking

business objectives. We evaluate these objectives in the context of industry dynamics and the regulatory climate in which the utility operates, as evaluated through the factors cited in paragraphs 24-27.

30. We modify the preliminary regulatory advantage assessment to reflect this influence positively or negatively. Where business strategy has limited effect relative to peers, we view the implications as neutral and make no adjustment. A positive assessment improves the preliminary regulatory advantage assessment by one category and indicates that management's business strategy is expected to bolster its regulatory advantage through favorable commission rulings beyond what is typical for a utility in that jurisdiction. Conversely, where management's strategy or businesses decisions result in adverse regulatory outcomes relative to peers, such as failure to achieve typical cost recovery or allowed returns, we adjust the preliminary regulatory advantage assessment one category worse. In extreme cases of poor strategic execution, the preliminary regulatory advantage assessment is adjusted by two categories worse (when possible; see table 2) to reflect management decisions that are likely to result in a significantly adverse regulatory outcome relative to peers.

Table 2

Determining The Final Regulatory Advantage Assessment

Preliminary regulatory advantage score	--Strategy modifier--			
	Positive	Neutral	Negative	Very negative
Strong	Strong	Strong	Strong/Adequate	Adequate
Strong/Adequate	Strong	Strong/Adequate	Adequate	Adequate/Weak
Adequate	Strong/Adequate	Adequate	Adequate/Weak	Weak
Adequate/Weak	Adequate	Adequate/Weak	Weak	Weak
Weak	Adequate/Weak	Weak	Weak	Weak

Scale, scope, and diversity

31. We consider the key factors for this component of competitive position to be primarily operational scale and diversity of the geographic, economic, and regulatory foot prints. We focus on a utility's markets, service territories, and diversity and the extent that these attributes can contribute to cash flow stability while dampening the effect of economic and market threats.
32. A utility that warrants a Strong or Strong/Adequate assessment has scale, scope, and diversity that support the stability of its revenues and profits by limiting its vulnerability to most combinations of adverse factors, events, or trends. The utility's significant advantages enable it to withstand economic, regional, competitive, and technological threats better than its peers. It typically is characterized by a combination of the following factors:
- A large and diverse customer base with no meaningful customer concentration risk, where residential and small to medium commercial customers typically provide most operating income.
 - The utility's range of service territories and regulatory jurisdictions is better than others in the sector.
 - Exposure to multiple regulatory authorities where we assess preliminary regulatory advantage to be at least Adequate. In the case of exposure to a single regulatory regime, the regulatory advantage assessment is either Strong or Strong/Adequate.

- No meaningful exposure to a single or few assets or suppliers that could hurt operations or could not easily be replaced.
33. A utility that warrants a Weak or Weak/Adequate assessment lacks scale, scope, and diversity such that it compromises the stability and sustainability of its revenues and profits. The utility's vulnerability to, or reliance on, various elements of this sub-factor is such that it is less likely than its peers to withstand economic, competitive, or technological threats. It typically is characterized by a combination of the following factors:
- A small customer base, especially if burdened by customer and/or industry concentration combined with little economic diversity and average to below-average economic prospects;
 - Exposure to a single service territory and a regulatory authority with a preliminary regulatory advantage assessment of Adequate or Adequate/Weak; or
 - Dependence on a single supplier or asset that cannot easily be replaced and which hurts the utility's operations.
34. We generally believe a larger service territory with a diverse customer base and average to above-average economic growth prospects provides a utility with cushion and flexibility in the recovery of operating costs and ongoing investment (including replacement and growth capital spending), as well as lessening the effect of external shocks (i.e., extreme local weather) since the incremental effect on each customer declines as the scale increases.
35. We consider residential and small commercial customers as having more stable usage patterns and being less exposed to periodic economic weakness, even after accounting for some weather-driven usage variability. Significant industrial exposure along with a local economy that largely depends on one or few cyclical industries potentially contributes to the cyclical nature of a utility's load and financial performance, magnifying the effect of an economic downturn.
36. A utility's cash flow generation and stability can benefit from operating in multiple geographic regions that exhibit average to better than average levels of wealth, employment, and growth that underpin the local economy and support long-term growth. Where operations are in a single geographic region, the risk can be ameliorated if the region is sufficiently large, demonstrates economic diversity, and has at least average demographic characteristics.
37. The detriment of operating in a single large geographic area is subject to the strength of regulatory assessment. Where a utility operates in a single large geographic area and has a strong regulatory assessment, the benefit of diversity can be incremental.

Operating efficiency

38. We consider the key factors for this component of competitive position to be:
- Compliance with the terms of its operating license, including safety, reliability, and environmental standards;
 - Cost management; and
 - Capital spending: scale, scope, and management.
39. Relative to peers, we analyze how successful a utility management achieves the above factors within the levels allowed by the regulator in a manner that promotes cash flow stability. We consider how management of these factors reduces the prospect of penalties for noncompliance, operating costs being greater than allowed, and capital projects running over budget and time, which could hurt full cost recovery.

40. The relative importance of the above three factors, particularly cost and capital spending management, is determined by the type of regulation under which the utility operates. Utilities operating under robust "cost plus" regimes tend to be more insulated given the high degree of confidence costs will invariably be passed through to customers. Utilities operating under incentive-based regimes are likely to be more sensitive to achieving regulatory standards. This is particularly so in the regulatory regimes that involve active consultation between regulator and utility and market testing as opposed to just handing down an outcome on a more arbitrary basis.
41. In some jurisdictions, the absolute performance standards are less relevant than how the utility performs against the regulator's performance benchmarks. It is this performance that will drive any penalties or incentive payments and can be a determinant of the utilities' credibility on operating and asset-management plans with its regulator.
42. Therefore, we consider that utilities that perform these functions well are more likely to consistently achieve determinations that maximize the likelihood of cost recovery and full inclusion of capital spending in their asset bases. Where regulatory resets are more at the discretion of the utility, effective cost management, including of labor, may allow for more control over the timing and magnitude of rate filings to maximize the chances of a constructive outcome such as full operational and capital cost recovery while protecting against reputational risks.
43. A regulated utility that warrants a Strong or Strong/Adequate assessment for operating efficiency relative to peers generates revenues and profits through minimizing costs, increasing efficiencies, and asset utilization. It typically is characterized by a combination of the following:
- High safety record;
 - Service reliability is strong, with a track record of meeting operating performance requirements of stakeholders, including those of regulators. Moreover, the utility's asset profile (including age and technology) is such that we have confidence that it could sustain favorable performance against targets;
 - Where applicable, the utility is well-placed to meet current and potential future environmental standards;
 - Management maintains very good cost control. Utilities with the highest assessment for operating efficiency have shown an ability to manage both their fixed and variable costs in line with regulatory expectations (including labor and working capital management being in line with regulator's allowed collection cycles); or
 - There is a history of a high level of project management execution in capital spending programs, including large one-time projects, almost invariably within regulatory allowances for timing and budget.
44. A regulated utility that warrants an Adequate assessment for operating efficiency relative to peers has a combination of cost position and efficiency factors that support profit sustainability combined with average volatility. Its cost structure is similar to its peers. It typically is characterized by a combination of the following factors:
- High safety performance;
 - Service reliability is satisfactory with a track record of mostly meeting operating performance requirements of stakeholders, including those of regulators. We have confidence that a favorable performance against targets can be mostly sustained;
 - Where applicable, the utility may be challenged to comply with current and future environmental standards that could increase in the medium term;

- Management maintains adequate cost control. Utilities that we assess as having adequate operating efficiency mostly manage their fixed and variable costs in line with regulatory expectations (including labor and working capital management being mostly in line with regulator's allowed collection cycles); or
 - There is a history of adequate project management skills in capital spending programs within regulatory allowances for timing and budget.
45. A regulated utility that warrants a weak or weak/adequate assessment for operating efficiency relative to peers has a combination of cost position and efficiency factors that fail to support profit sustainability combined with below-average volatility. Its cost structure is worse than its peers. It typically is characterized by a combination of the following:
- Poor safety performance;
 - Service reliability has been sporadic or non-existent with a track record of not meeting operating performance requirements of stakeholders, including those of regulators. We do not believe the utility can consistently meet performance targets without additional capital spending;
 - Where applicable, the utility is challenged to comply with current environmental standards and is highly vulnerable to more onerous standards;
 - Management typically exceeds operating costs authorized by regulators;
 - Inconsistent project management skills as evidenced by cost overruns and delays including for maintenance capital spending; or
 - The capital spending program is large and complex and falls into the weak or weak/adequate assessment, even if operating efficiency is generally otherwise considered adequate.

Profitability

46. A utility with above-average profitability would, relative to its peers, generally earn a rate of return at or above what regulators authorize and have minimal exposure to earnings volatility from affiliated unregulated business activities or market-sensitive regulated operations. Conversely, a utility with below-average profitability would generally earn rates of return well below the authorized return relative to its peers or have significant exposure to earnings volatility from affiliated unregulated business activities or market-sensitive regulated operations.
47. The profitability assessment consists of "level of profitability" and "volatility of profitability."

Level of profitability

48. Key measures of general profitability for regulated utilities commonly include ratios, which we compare both with those of peers and those of companies in other industries to reflect different countries' regulatory frameworks and business environments:
- EBITDA margin,
 - Return on capital (ROC), and
 - Return on equity (ROE).
49. In many cases, EBITDA as a percentage of sales (i.e., EBITDA margin) is a key indicator of profitability. This is because the book value of capital does not always reflect true earning

potential, for example when governments privatize or restructure incumbent state-owned utilities. Regulatory capital values can vary with those of reported capital because regulatory capital values are not inflation-indexed and could be subject to different assumptions concerning depreciation. In general, a country's inflation rate or required rate of return on equity investment is closely linked to a utility company's profitability. We do not adjust our analysis for these factors, because we can make our assessment through a peer comparison.

50. For regulated utilities subject to full cost-of-service regulation and return-on-investment requirements, we normally measure profitability using ROE, the ratio of net income available for common stockholders to average common equity. When setting rates, the regulator ultimately bases its decision on an authorized ROE. However, different factors such as variances in costs and usage may influence the return a utility is actually able to earn, and consequently our analysis of profitability for cost-of-service-based utilities centers on the utility's ability to consistently earn the authorized ROE.
51. We will use return on capital when pass-through costs distort profit margins--for instance congestion revenues or collection of third-party revenues. This is also the case when the utility uses accelerated depreciation of assets, which in our view might not be sustainable in the long run.

Volatility of profitability

52. We may observe a clear difference between the volatility of actual profitability and the volatility of underlying regulatory profitability. In these cases, we could use the regulatory accounts as a proxy to judge the stability of earnings.
53. We use actual returns to calculate the standard error of regression for regulated utility issuers (only if there are at least seven years of historical annual data to ensure meaningful results). If we believe recurring mergers and acquisitions or currency fluctuations affect the results, we may make adjustments.

Part II--Financial Risk Analysis

D. Accounting

54. Our analysis of a company's financial statements begins with a review of the accounting to determine whether the statements accurately measure a company's performance and position relative to its peers and the larger universe of corporate entities. To allow for globally consistent and comparable financial analyses, our rating analysis may include quantitative adjustments to a company's reported results. These adjustments also align a company's reported figures with our view of underlying economic conditions and give us a more accurate portrayal of a company's ongoing business. We discuss adjustments that pertain broadly to all corporate sectors, including this sector, in "Corporate Methodology: Ratios And Adjustments." Accounting characteristics unique to this sector are discussed below.

Accounting characteristics

55. Some important accounting practices for utilities include:
- For integrated electric utilities that meet native load obligations in part with third-party power contracts, we use our purchased power methodology to adjust measures for the debt-like

obligation such contracts represent.

- Due to distortions in leverage measures from the substantial seasonal working-capital requirements of natural gas distribution utilities, we adjust inventory and debt balances by netting the value of inventory against outstanding short-term borrowings. This adjustment provides an accurate view of the company's balance sheet by reducing seasonal debt balances when we see a very high certainty of near-term cost recovery.
- We deconsolidate securitized debt (and associated revenues and expenses) that has been accorded specialized recovery provisions.

56. In the U.S. and selectively in other regions, utilities employ "regulatory accounting," which permits a rate-regulated company to defer some revenues and expenses to match the timing of the recognition of those items in rates as determined by regulators. A utility subject to regulatory accounting will therefore have assets and liabilities on its books that an unregulated corporation, or even regulated utilities in many other global regions, cannot record. We do not adjust GAAP earnings or balance-sheet figures to remove the effects of regulatory accounting. However, as more countries adopt International Financial Reporting Standards (IFRS), the use of regulatory accounting will become more scarce. IFRS does not currently provide for any recognition of the effects of rate regulation for financial reporting purposes, but it is considering the use of regulatory accounting. We do not anticipate altering our fundamental financial analysis of utilities because of the use or non-use of regulatory accounting. We will continue to analyze the effects of regulatory actions on a utility's financial health.

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E. Cash flow/leverage analysis

75. In assessing the cash flow adequacy of a regulated utility, our analysis uses the same

methodology as with other corporate issuers (see "Corporate Methodology"). We assess cash flow/leverage on a six-point scale ranging from ('1') minimal to ('6') highly leveraged. These scores are determined by aggregating the assessments of a range of credit ratios, predominantly cash flow-based, which complement each other by focusing attention on the different levels of a company's cash flow waterfall in relation to its obligations.

76. The corporate methodology provides benchmark ranges for various cash flow ratios we associate with different cash flow leverage assessments for standard volatility, medial volatility, and low volatility industries. The tables of benchmark ratios differ for a given ratio and cash flow leverage assessment along two dimensions: the starting point for the ratio range and the width of the ratio range.
77. If an industry's volatility levels are low, the threshold levels for the applicable ratios to achieve a given cash flow leverage assessment are less stringent, although the width of the ratio range is narrower. Conversely, if an industry has standard levels of volatility, the threshold levels for the applicable ratios to achieve a given cash flow leverage assessment may be elevated, but with a wider range of values.
78. We apply the "low-volatility" table to regulated utilities that qualify under the corporate criteria and with all of the following characteristics:
- A vast majority of operating cash flows come from regulated operations that are predominantly at the low end of the utility risk spectrum (e.g., a "network," or distribution/transmission business unexposed to commodity risk and with very low operating risk);
 - A "strong" regulatory advantage assessment;
 - An established track record of normally stable credit measures that is expected to continue;
 - A demonstrated long-term track record of low funding costs (credit spread) for long-term debt that is expected to continue; and
 - Non-utility activities that are in a separate part of the group (as defined in our group rating methodology) that we consider to have "nonstrategic" group status and are not deemed high risk and/or volatile.
79. We apply the "medial volatility" table to companies that do not qualify under paragraph 78 with:
- A majority of operating cash flows from regulated activities with an "adequate" or better regulatory advantage assessment; or
 - About one-third or more of consolidated operating cash flow comes from regulated utility activities with a "strong" regulatory advantage and where the average of its remaining activities have a competitive position assessment of '3' or better.
80. We apply the "standard volatility" table to all other regulated utility companies that do not comply with the conditions for use of the low or medial volatility tables (paragraph 78 and paragraph 79, respectively).

Part III--Rating Modifiers

F. Diversification/portfolio effect

81. In assessing the diversification/portfolio effect on a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

G. Capital structure

82. In assessing the quality of the capital structure of a regulated utility, we use the same methodology as with other corporate issuers (see "Corporate Methodology").

H. Liquidity

83. In assessing a utility's liquidity/short-term factors, our analysis is consistent with the methodology that applies to corporate issuers (see "Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers").
84. This paragraph has been deleted.

I. Financial policy

85. In assessing financial policy on a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

J. Management and governance

86. In assessing management and governance on a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

K. Comparable ratings analysis

87. In assessing the comparable ratings analysis on a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

APPENDIX--Frequently Asked Questions

Does S&P Global Ratings expect that the business strategy modifier to the preliminary regulatory advantage will be used extensively?

88. Globally, we expect management's influence will be neutral in most jurisdictions. Where the regulatory assessment is "strong," it is less likely that a negative business strategy modifier would be used due to the nature of the regulatory regime that led to the "strong" assessment in the first place. Utilities in "adequate/weak" and "weak" regulatory regimes are challenged to outperform due to the uncertainty of such regulatory regimes. For a positive use of the business strategy modifier, there would need to be a track record of the utility consistently outperforming the parameters laid down under a regulatory regime, and we would need to believe this could be sustained. The business strategy modifier is most likely to be used when the preliminary regulatory advantage assessment is "strong/adequate" because the starting point in the assessment is reasonably supportive, and a utility has shown it manages regulatory risk better or worse than its peers in that regulatory environment and we expect that advantage or disadvantage will persist. An example would be a utility that can consistently earn or exceed its authorized return in a jurisdiction where most other utilities struggle to do so. If a utility is treated differently by a regulator due to perceptions of poor customer service or reliability and the "operating

efficiency" component of the competitive position assessment does not fully capture the effect on the business risk profile, a negative business strategy modifier could be used to accurately incorporate it into our analysis. We expect very few utilities will be assigned a "very negative" business strategy modifier.

Does a relatively strong or poor relationship between the utility and its regulator compared with its peers in the same jurisdiction necessarily result in a positive or negative adjustment to the preliminary regulatory advantage assessment?

89. No. The business strategy modifier is used to differentiate a company's regulatory advantage within a jurisdiction where we believe management's business strategy has and will positively or negatively affect regulatory outcomes beyond what is typical for other utilities in that jurisdiction. For instance, in a regulatory jurisdiction where allowed returns are negotiated rather than set by formula, a utility that is consistently authorized higher returns (and is able to earn that return) could warrant a positive adjustment. A management team that cannot negotiate an approved capital spending program to improve its operating performance could be assessed negatively if its performance lags behind peers in the same regulatory jurisdiction.

What is your definition of regulatory jurisdiction?

90. A regulatory jurisdiction is defined as the area over which the regulator has oversight and could include single or multiple subsectors (water, gas, and power). A geographic region may have several regulatory jurisdictions. For example, the Office of Gas and Electricity Markets and the Water Services Regulation Authority in the U.K. are considered separate regulatory jurisdictions. In Ontario, Canada, the Ontario Energy Board represents a single jurisdiction with regulatory oversight for power and gas. Also, in Australia, the Australian Energy Regulator would be considered a single jurisdiction given that it is responsible for both electricity and gas transmission and distribution networks in the entire country, with the exception of Western Australia.

Are there examples of different preliminary regulatory advantage assessments in the same country or jurisdiction?

91. Yes. In Israel we rate a regulated integrated power utility and a regulated gas transmission system operator (TSO). The power utility's relationship with its regulator is extremely poor in our view, which led to significant cash flow volatility in a stress scenario (when terrorists blew up the gas pipeline that was then Israel's main source of natural gas, the utility was unable to negotiate compensation for expensive alternatives in its regulated tariffs). We view the gas TSO's relationship with its regulator as very supportive and stable. Because we already reflected this in very different preliminary regulatory advantage assessments, we did not modify the preliminary assessments because the two regulatory environments in Israel differ and were not the result of the companies' respective business strategies.

How is regulatory advantage assessed for utilities that are a natural monopoly but are not regulated by a regulator or a specific regulatory framework, and do you use the regulatory modifier if they achieve favorable treatment from the

government as an owner?

92. The four regulatory pillars remain the same. On regulatory stability we look at the stability of the setup, with more emphasis on the historical track record and our expectations regarding future changes. In tariff-setting procedures and design we look at the utility's ability to fully recover operating costs, investments requirements, and debt-service obligations. In financial stability we look at the degree of flexibility in tariffs to counter volume risk or commodity risk. The flexibility can also relate to the level of indirect competition the utility faces. For example, while Nordic district heating companies operate under a natural monopoly, their tariff flexibility is partly restricted by customers' option to change to a different heating source if tariffs are significantly increased. Regulatory independence and insulation is mainly based on the perceived risk of political intervention to change the setup that could affect the utility's credit profile. Although political intervention tends to be mostly negative, in certain cases political ties due to state ownership might positively influence tariff determination. We believe that the four pillars effectively capture the benefits from the close relationship between the utility and the state as an owner; therefore, we do not foresee the use of the regulatory modifier.

In table 1, when describing a "strong" regulatory advantage assessment, you mention that there is support of cash flows during construction of large projects, and preapproval of capital investment programs and large projects lowers the risk of subsequent disallowances of capital costs. Would this preclude a "strong" regulatory advantage assessment in jurisdictions where those practices are absent?

93. No. The table is guidance as to what we would typically expect from a regulatory framework that we would assess as "strong." We would expect some frameworks with no capital support during construction to receive a "strong" regulatory advantage assessment if in aggregate the other factors we analyze support that conclusion.

REVISIONS AND UPDATES

This article was originally published on Nov. 19, 2013. These criteria became effective on Nov. 19, 2013.

Changes introduced after original publication:

- Following our periodic review completed on June 17, 2016, we updated the contact information and criteria references and deleted paragraphs 2, 5, and 6, which were related to the initial publication of our criteria and no longer relevant.
- Following our periodic review completed on June 6, 2017, we updated the contact information and criteria references and clarified paragraphs 4 and 84.
- Following our periodic review completed on June 5, 2018, we updated the contact information and criteria references and renamed the "Revision History" section to "Revisions And Updates."
- On April 1, 2019, we republished this criteria article to make nonmaterial changes. We deleted paragraphs 57-74 because they were superseded by "Corporate Methodology: Ratios And Adjustments," published April 1, 2019 (Ratios and Adjustments). The sector-specific accounting and analytical adjustments previously included in those paragraphs are now

included in the Guidance supporting the Ratios and Adjustments criteria. We also updated the contacts list.

- On July 25, 2019, we republished this criteria article to make nonmaterial changes. We updated the contact information and updated several references to other criteria articles throughout the body of this article by removing the dates of publication. These dates are provided in the "Related Criteria" section.
- On Dec. 4, 2019, we republished this criteria article to make nonmaterial changes. We deleted paragraph 84 because it was superseded by "Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers" (liquidity criteria), published Dec. 16, 2014. The sector-specific liquidity adjustments previously included in that paragraph are now included in the guidance supporting the liquidity criteria. We also updated criteria references.
- On July 22, 2020, we republished this criteria article to make nonmaterial changes to update criteria references.
- On April 5, 2021, we republished this criteria article to make nonmaterial changes. We replaced the content of the "Industry risk" section (paragraphs 7-15) with a reference to the most recent "Industry Risk Assessments Update." In addition, we updated the "Related Research" section.
- On July 7, 2021, we republished this criteria article to correct an error in paragraph 80. Specifically, we established that the standard volatility table applies to all companies that do not meet the prerequisites for the application of the low or medial volatility tables.

RELATED PUBLICATIONS

Superseded Criteria

- Revised Methodology For Adjusting Amounts Reported By U.K. GAAP Water Companies For Infrastructure Renewals Accounting, Jan. 27, 2010
- Key Credit Factors: Business And Financial Risks In The Investor-Owned Utilities Industry, Nov. 26, 2008
- Assessing U.S. Utility Regulatory Environments, Nov. 7, 2007

Related Criteria

- Group Rating Methodology, July 1, 2019
- Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016
- Methodology: Jurisdiction Ranking Assessments, Jan. 21, 2016
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014

- Corporate Methodology, Nov. 19, 2013
- Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Methodology: Industry Risk, Nov. 19, 2013
- Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013
- Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property, Feb. 14, 2013
- Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Related Research

- Industry Risk Assessments Update, Jan. 27, 2021

Related Guidance

- Guidance: Liquidity Descriptors For Global Corporate Issuers, Dec. 4, 2019
- Guidance: Group Rating Methodology, July 1, 2019
- Guidance: Corporate Methodology: Ratios And Adjustments, April 1, 2019

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**MP Exhibit ____ (Taran), Direct Schedule 7:
S&P's Credit Report on ALLETE, Inc.
(Apr. 22, 2020)**

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**MP Exhibit ____ (Taran), Direct Schedule 8:
S&P's Credit Report on ALLETE, Inc.
(May 18, 2021)**

**PUBLIC DOCUMENT
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**MP Exhibit ____ (Taran), Direct Schedule 9:
S&P's Credit Report on ALLETE, Inc.
(Feb. 10, 2023)**

**PUBLIC DOCUMENT
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**MP Exhibit ____ (Taran), Direct Schedule
10: S&P's Credit Report on ALLETE, Inc.
(June 14, 2023)**



Criteria | Corporates | General:

Corporate Methodology

November 19, 2013

(Editor's Note: On Dec. 15, 2021, we republished this criteria article to make nonmaterial changes. See the "Revisions And Updates" section for details.)

1. These criteria present S&P Global Ratings' methodology for rating corporate industrial companies and utilities. The criteria organize the analytical process according to a common framework and articulate the steps in developing the stand-alone credit profile (SACP) and issuer credit rating (ICR) for a corporate entity. For the related guidance article, see "Guidance: Corporate Methodology."
2. This article is related to our criteria article "Principles Of Credit Ratings."

SUMMARY OF THE CRITERIA

3. The criteria describe the methodology we use to determine the SACP and ICR for corporate industrial companies and utilities. Our assessment reflects these companies' business risk profiles, their financial risk profiles, and other factors that may modify the SACP outcome (see "General Criteria: Stand-Alone Credit Profiles: One Component Of A Rating," for the definition of SACP). The criteria provide clarity on how we determine an issuer's SACP and ICR and are more specific in detailing the various factors of the analysis. The criteria also provide clear guidance on how we use these factors as part of determining an issuer's ICR. S&P Global Ratings intends for these criteria to provide the market with a framework that clarifies our approach to fundamental analysis of corporate credit risks.
4. The business risk profile comprises the risk and return potential for a company in the markets in which it participates, the competitive climate within those markets (its industry risk), the country risks within those markets, and the competitive advantages and disadvantages the company has within those markets (its competitive position). The business risk profile affects the amount of financial risk that a company can bear at a given SACP level and constitutes the foundation for a company's expected economic success. We combine our assessments of industry risk, country risk, and competitive position to determine the assessment for a corporation's business risk profile.
5. The financial risk profile is the outcome of decisions that management makes in the context of its business risk profile and its financial risk tolerances. This includes decisions about the manner in which management seeks funding for the company and how it constructs its balance sheet. It also reflects the relationship of the cash flows the organization can achieve, given its business risk profile, to the company's financial obligations. The criteria use cash flow/leverage analysis to determine a corporate issuer's financial risk profile assessment.

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6. We then combine an issuer's business risk profile assessment and its financial risk profile assessment to determine its anchor (see table 3). Additional rating factors can modify the anchor. These are: diversification/portfolio effect, capital structure, financial policy, liquidity, and management and governance. Comparable ratings analysis is the last analytical factor under the criteria to determine the final SACP on a company.
7. These criteria are complemented by sector-specific provisions, included in industry-specific criteria articles called Key Credit Factors (KCFs) or in the guidance related to this criteria article ("Guidance: Corporate Methodology"). The KCFs describe the industry risk assessments associated with each sector and may identify sector-specific criteria that supersede certain factors of these criteria in the analysis. "Guidance: Corporate Methodology" also provides guidelines on the analytical factors we consider when applying "Corporate Methodology" to certain sectors.

SCOPE OF THE CRITERIA

8. This methodology applies to nonfinancial corporate issuer credit ratings globally. Please see "Recovery Rating Criteria For Speculative-Grade Corporate Issuers," and "Reflecting Subordination Risk In Corporate Issue Ratings," for further information on our methodology for determining issue ratings. This methodology does not apply to the following sectors, based on the unique characteristics of these sectors, which require either a different framework of analysis or substantial modifications to one or more factors of analysis: project finance entities, project developers, commodities trading, investment holding companies and companies that maximize their returns by buying and selling equity holdings over time, Japanese general trading companies, corporate securitizations, nonprofit and cooperative organizations (other than agricultural cooperatives), and other entities whose cash flows are primarily derived from partially owned equity holdings.
9. This paragraph has been deleted.
10. This paragraph has been deleted.

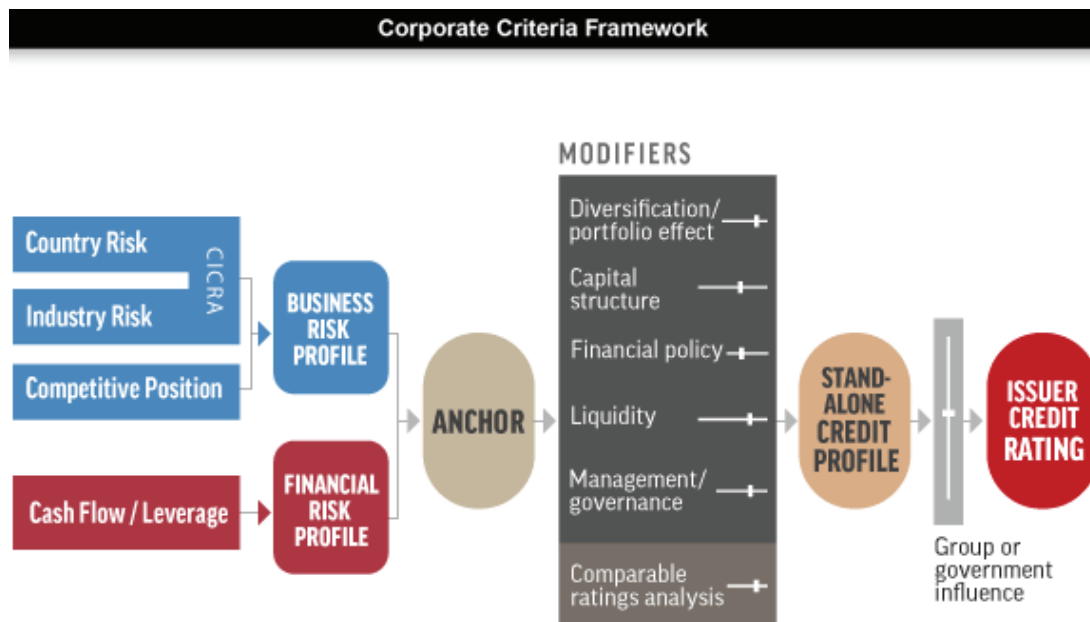
METHODOLOGY

A. Corporate Ratings Framework

11. The corporate analytical methodology organizes the analytical process according to a common framework, and it divides the task into several factors so that S&P Global Ratings considers all salient issues. First we analyze the company's business risk profile, then evaluate its financial risk profile, then combine those to determine an issuer's anchor. We then analyze six factors that could potentially modify our anchor conclusion.
12. To determine the assessment for a corporate issuer's business risk profile, the criteria combine our assessments of industry risk, country risk, and competitive position. Cash flow/leverage analysis determines a company's financial risk profile assessment. The analysis then combines the corporate issuer's business risk profile assessment and its financial risk profile assessment to determine its anchor. In general, the analysis weighs the business risk profile more heavily for investment-grade anchors, while the financial risk profile carries more weight for speculative-grade anchors.
13. After we determine the anchor, we use additional factors to modify the anchor. These factors are: diversification/portfolio effect, capital structure, financial policy, liquidity, and management and

governance. The assessment of each factor can raise or lower the anchor by one or more notches--or have no effect. These conclusions take the form of assessments and descriptors for each factor that determine the number of notches to apply to the anchor.

14. The last analytical factor the criteria call for is comparable ratings analysis, which may raise or lower the anchor by one notch based on a holistic view of the company's credit characteristics.



15. The three analytic factors within the business risk profile generally are a blend of qualitative assessments and quantitative information. Qualitative assessments distinguish risk factors, such as a company's competitive advantages, that we use to assess its competitive position. Quantitative information includes, for example, historical cyclicity of revenues and profits that we review when assessing industry risk. It can also include the volatility and level of profitability we consider in order to assess a company's competitive position. The assessments for business risk profile are: 1, excellent; 2, strong; 3, satisfactory; 4, fair; 5, weak; and 6, vulnerable.
16. In assessing cash flow/leverage to determine the financial risk profile, the analysis focuses on quantitative measures. The assessments for financial risk profile are: 1, minimal; 2, modest; 3, intermediate; 4, significant; 5, aggressive; and 6, highly leveraged.
17. The ICR results from the combination of the SACP and the support framework, which determines the extent of the difference between the SACP and the ICR, if any, for group or government influence. Extraordinary influence is then captured in the ICR. Please see "Group Rating Methodology," and "Rating Government-Related Entities: Methodology And Assumptions," for our methodology on group and government influence.
18. Ongoing support or negative influence from a government (for government-related entities), or from a group, is factored into the SACP (see "SACP criteria"). While such ongoing support/negative influence does not affect the industry or country risk assessment, it can affect any other factor in business or financial risk. For example, such support or negative influence can affect: national

industry analysis, other elements of competitive position, financial risk profile, the liquidity assessment, and comparable ratings analysis.

19. The application of these criteria will result in an SACP that could then be constrained by the relevant sovereign rating and transfer and convertibility (T&C) assessment affecting the entity when determining the ICR. In order for the final ICR to be higher than the applicable sovereign rating or T&C assessment, the entity will have to meet the conditions established in "Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions."

1. Determining the business risk profile assessment

20. Under the criteria, the combined assessments for country risk, industry risk, and competitive position determine a company's business risk profile assessment. A company's strengths or weaknesses in the marketplace are vital to its credit assessment. These strengths and weaknesses determine an issuer's capacity to generate cash flows in order to service its obligations in a timely fashion.
21. Industry risk, an integral part of the credit analysis, addresses the relative health and stability of the markets in which a company operates. The range of industry risk assessments is: 1, very low risk; 2, low risk; 3, intermediate risk; 4, moderately high risk; 5, high risk; and 6, very high risk. The treatment of industry risk is in section B.
22. Country risk addresses the economic risk, institutional and governance effectiveness risk, financial system risk, and payment culture or rule of law risk in the countries in which a company operates. The range of country risk assessments is: 1, very low risk; 2, low risk; 3, intermediate risk; 4, moderately high risk; 5, high risk; and 6, very high risk. The treatment of country risk is in section C.
23. The evaluation of an enterprise's competitive position identifies entities that are best positioned to take advantage of key industry drivers or to mitigate associated risks more effectively--and achieve a competitive advantage and a stronger business risk profile than that of entities that lack a strong value proposition or are more vulnerable to industry risks. The range of competitive position assessments is: 1, excellent; 2, strong; 3, satisfactory; 4, fair; 5, weak; and 6, vulnerable. The full treatment of competitive position is in section D.
24. The combined assessment for country risk and industry risk is known as the issuer's Corporate Industry and Country Risk Assessment (CICRA). Table 1 shows how to determine the combined assessment for country risk and industry risk.

Table 1

Determining The CICRA

Industry risk assessment	--Country risk assessment--					
	1 (very low risk)	2 (low risk)	3 (intermediate risk)	4 (moderately high risk)	5 (high risk)	6 (very high risk)
1 (very low risk)	1	1	1	2	4	5
2 (low risk)	2	2	2	3	4	5
3 (intermediate risk)	3	3	3	3	4	6
4 (moderately high risk)	4	4	4	4	5	6
5 (high risk)	5	5	5	5	5	6
6 (very high risk)	6	6	6	6	6	6

25.

The CICRA is combined with a company's competitive position assessment in order to create the issuer's business risk profile assessment. Table 2 shows how we combine these assessments.

Table 2

Determining The Business Risk Profile Assessment

Competitive position assessment	--CICRA--					
	1	2	3	4	5	6
1 (excellent)	1	1	1	2	3*	5
2 (strong)	1	2	2	3	4	5
3 (satisfactory)	2	3	3	3	4	6
4 (fair)	3	4	4	4	5	6
5 (weak)	4	5	5	5	5	6
6 (vulnerable)	5	6	6	6	6	6

*See paragraph 26.

26. A small number of companies with a CICRA of 5 may be assigned a business risk profile assessment of 2 if all of the following conditions are met:
- The company's competitive position assessment is 1.
 - The company's country risk assessment is no riskier than 3.
 - The company produces significantly better-than-average industry profitability, as measured by the level and volatility of profits.
 - The company's competitive position within its sector transcends its industry risks due to unique competitive advantages with its customers, strong operating efficiencies not enjoyed by the large majority of the industry, or scale/scope/diversity advantages that are well beyond the large majority of the industry.
27. For issuers with multiple business lines, the business risk profile assessment is based on our assessment of each of the factors--country risk, industry risk, and competitive position--as follows:
- Country risk: We use the weighted average of the country risk assessments for the company across all countries where companies generate more than 5% of sales or EBITDA, or where more than 5% of fixed assets are located.
 - Industry risk: We use the weighted average of the industry risk assessments for all business lines representing more than 20% of the company's forecasted earnings, revenues or fixed assets, or other appropriate financial measures if earnings, revenue, or fixed assets do not accurately reflect the exposure to an industry.
 - Competitive position: We assess all business lines identified above for the components competitive advantage, scope/scale/diversity, and operating efficiency (see section D). They are then blended using a weighted average of revenues, earnings, or assets to form the preliminary competitive position assessment. The level of profitability and volatility of profitability are then assessed based on the consolidated financials for the enterprise. The preliminary competitive position assessment is then blended with the profitability assessment, as per section D.5, to assess competitive position for the enterprise.

2. Determining the financial risk profile assessment

28. Under the criteria, cash flow/leverage analysis is the foundation for assessing a company's financial risk profile. The range of assessments for a company's cash flow/leverage is 1, minimal; 2, modest; 3, intermediate; 4, significant; 5, aggressive; and 6, highly leveraged. The full treatment of cash flow/leverage analysis is the subject of section E.

3. Merger of financial risk profile and business risk profile assessments

29. An issuer's business risk profile assessment and its financial risk profile assessment are combined to determine its anchor (see table 3). If we view an issuer's capital structure as unsustainable or if its obligations are currently vulnerable to nonpayment, and if the obligor is dependent upon favorable business, financial, and economic conditions to meet its commitments on its obligations, then we will determine the issuer's SACP using "Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings." If the issuer meets the conditions for assigning 'CCC+', 'CCC', 'CCC-', and 'CC' ratings, we will not apply Table 3.

Table 3

Combining The Business And Financial Risk Profiles To Determine The Anchor

Business risk profile	--Financial risk profile--					
	1 (minimal)	2 (modest)	3 (intermediate)	4 (significant)	5 (aggressive)	6 (highly leveraged)
1 (excellent)	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
2 (strong)	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
3 (satisfactory)	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
4 (fair)	bbb/bbb-	bbb-	bb+	bb	bb-	b
5 (weak)	bb+	bb+	bb	bb-	b+	b/b-
6 (vulnerable)	bb-	bb-	bb-/b+	b+	b	b-

30. When two anchor outcomes are listed for a given combination of business risk profile assessment and financial risk profile assessment, an issuer's anchor is determined as follows:
- When a company's financial risk profile is 4 or stronger (meaning, 1-4), its anchor is based on the comparative strength of its business risk profile. We consider our assessment of the business risk profile for corporate issuers to be points along a possible range within its category (e.g., "strong"). Consequently, each of these assessments that ultimately generate the business risk profile for a specific issuer can be at the upper or lower end of such a range. Issuers with a stronger business risk profile for the range of anchor outcomes will be assigned the higher anchor. Those with a weaker business risk profile for the range of anchor outcomes will be assigned the lower anchor.
 - When a company's financial risk profile is 5 or 6, its anchor is based on the comparative strength of its financial risk profile. Issuers with stronger cash flow/leverage ratios for the range of anchor outcomes will be assigned the higher anchor. Issuers with weaker cash flow/leverage ratios for the range of anchor outcomes will be assigned the lower anchor. For example, a company with a business risk profile of (1) excellent and a financial risk profile of (6) highly leveraged would generally be assigned an anchor of 'bb+' if its ratio of debt to EBITDA was 8x or greater and there were no offsetting factors to such a high level of leverage.

4. Building on the anchor

31. The analysis of diversification/portfolio effect, capital structure, financial policy, liquidity, and management and governance may raise or lower a company's anchor. The assessment of each modifier can raise or lower the anchor by one or more notches--or have no effect in some cases (see tables 4 and 5). We express these conclusions using specific assessments and descriptors that determine the number of notches to apply to the anchor. However, this notching in aggregate can't lower an issuer's anchor below 'b-' (see "Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings," for the methodology we use to assign 'CCC' and 'CC' category SACP's and ICR's to issuers).
32. The analysis of the modifier diversification/portfolio effect identifies the benefits of diversification across business lines. The diversification/portfolio effect assessments are 1, significant diversification; 2, moderate diversification; and 3, neutral. The impact of this factor on an issuer's anchor is based on the company's business risk profile assessment and is described in Table 4. Multiple earnings streams (which are evaluated within a firm's business risk profile) that are less-than-perfectly correlated reduce the risk of default of an issuer (see Appendix D). We determine the impact of this factor based on the business risk profile assessment because the benefits of diversification are significantly reduced with poor business prospects. The full treatment of diversification/portfolio effect analysis is the subject of section F.

Table 4

Modifier Step 1: Impact Of Diversification/Portfolio Effect On The Anchor

Diversification/portfolio effect	--Business risk profile assessment--					
	1 (excellent)	2 (strong)	3 (satisfactory)	4 (fair)	5 (weak)	6 (vulnerable)
1 (significant diversification)	+2 notches	+2 notches	+2 notches	+1 notch	+1 notch	0 notches
2 (moderate diversification)	+1 notch	+1 notch	+1 notch	+1 notch	0 notches	0 notches
3 (neutral)	0 notches	0 notches	0 notches	0 notches	0 notches	0 notches

33. After we adjust for the diversification/portfolio effect, we determine the impact of the other modifiers: capital structure, financial policy, liquidity, and management and governance. We apply these four modifiers in the order listed in Table 5. As we go down the list, a modifier may (or may not) change the anchor to a new range (one of the ranges in the four right-hand columns in the table). We'll choose the appropriate value from the new range, or column, to determine the next modifier's effect on the anchor. And so on, until we get to the last modifier on the list--management and governance. For example, let's assume that the anchor, after adjustment for diversification/portfolio effect but before adjusting for the other modifiers, is 'a'. If the capital structure assessment is very negative, the indicated anchor drops two notches, to 'bbb+'. So, to determine the impact of the next modifier--financial policy--we go to the column 'bbb+' to 'bbb-' and find the appropriate assessment--in this theoretical example, positive. Applying that assessment moves the anchor up one notch, to the 'a-' and higher' category. In our example, liquidity is strong, so the impact is zero notches and the anchor remains unchanged. Management and governance is satisfactory, and thus the anchor remains 'a-' (see chart following table 5).

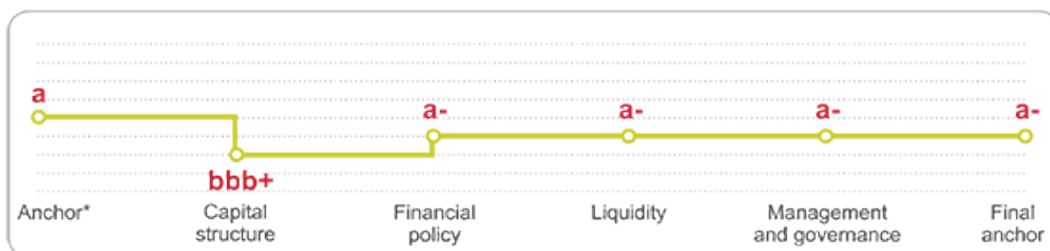
Table 5

Modifier Step 2: Impact Of Remaining Modifier Factors On The Anchor

	--Anchor range--			
	'a-' and higher	'bbb+' to 'bbb-'	'bb+' to 'bb-'	'b+' and lower
Factor/Assessment				
Capital structure (see section G)				
1 (Very positive)	2 notches	2 notches	2 notches	2 notches
2 (Positive)	1 notch	1 notch	1 notch	1 notch
3 (Neutral)	0 notches	0 notches	0 notches	0 notches
4 (Negative)	-1 notch	-1 notch	-1 notch	-1 notch
5 (Very negative)	-2 or more notches	-2 or more notches	-2 or more notches	-2 notches
Financial policy (FP; see section H)				
1 (Positive)	+1 notch if M&G is at least satisfactory	+1 notch if M&G is at least satisfactory	+1 notch if liquidity is at least adequate and M&G is at least satisfactory	+1 notch if liquidity is at least adequate and M&G is at least satisfactory
2 (Neutral)	0 notches	0 notches	0 notches	0 notches
3 (Negative)	-1 to -3 notches(1)	-1 to -3 notches(1)	-1 to -2 notches(1)	-1 notch
4 (FS-4, FS-5, FS-6, FS-6 [minus])	N/A(2)	N/A(2)	N/A(2)	N/A(2)
Liquidity (see section I)				
1 (Exceptional)	0 notches	0 notches	0 notches	+1 notch if FP is positive, neutral, FS-4, or FS-5 (3)
2 (Strong)	0 notches	0 notches	0 notches	+1 notch if FP is positive, neutral, FS-4, or FS-5 (3)
3 (Adequate)	0 notches	0 notches	0 notches	0 notches
4 (Less than adequate [4])	N/A	N/A	-1 notch(5)	0 notches
5 (Weak)	N/A	N/A	N/A	'b-' cap on SACP
Management and governance (M&G; see section J)				
1 (Strong)	0 notches	0 notches	0, +1 notches(6)	0, +1 notches(6)
2 (Satisfactory)	0 notches	0 notches	0 notches	0 notches
3 (Fair)	-1 notch	0 notches	0 notches	0 notches
4 (Weak)	-2 or more notches(7)	-2 or more notches(7)	-1 or more notches(7)	-1 or more notches(7)

(1) Number of notches depends on potential incremental leverage. (2) See "Financial Policy," section H.2. (3) Additional notch applies only if we expect liquidity to remain exceptional or strong. (4) See "Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers." SACP is capped at 'bb+'. (5) If issuer SACP is 'bb+' due to cap, there is no further notching. (6) This adjustment is one notch if we have not already captured benefits of strong management and governance in the analysis of the issuer's competitive position. (7) Number of notches depends upon the degree of negative effect to the enterprise's risk profile.

Example: How Remaining Modifiers Can Change The Anchor



*After adjusting for diversification/portfolio effect. See paragraph 33.

34. Our analysis of a firm's capital structure assesses risks in the firm's capital structure that may not arise in the review of its cash flow/leverage. These risks include the currency risk of debt, debt maturity profile, interest rate risk of debt, and an investments subfactor. We assess a corporate issuer's capital structure on a scale of 1, very positive; 2, positive; 3, neutral; 4, negative; and 5, very negative. The full treatment of capital structure is the subject of section G.
35. Financial policy serves to refine the view of a company's risks beyond the conclusions arising from the standard assumptions in the cash flow/leverage, capital structure, and liquidity analyses. Those assumptions do not always reflect or adequately capture the long-term risks of a firm's financial policy. The financial policy assessment is, therefore, a measure of the degree to which owner/managerial decision-making can affect the predictability of a company's financial risk profile. We assess financial policy as 1) positive, 2) neutral, 3) negative, or as being owned by a financial sponsor. We further identify financial sponsor-owned companies as "FS-4", "FS-5", "FS-6", or "FS-6 (minus)." The full treatment of financial policy analysis is the subject of section H.
36. Our assessment of liquidity focuses on the monetary flows--the sources and uses of cash--that are the key indicators of a company's liquidity cushion. The analysis also assesses the potential for a company to breach covenant tests tied to declines in earnings before interest, taxes, depreciation, and amortization (EBITDA). The methodology incorporates a qualitative analysis that addresses such factors as the ability to absorb high-impact, low-probability events, the nature of bank relationships, the level of standing in credit markets, and the degree of prudence of the company's financial risk management. The liquidity assessments are 1, exceptional; 2, strong; 3, adequate; 4, less than adequate; and 5, weak. An SACP is capped at 'bb+' for issuers whose liquidity is less than adequate and 'b-' for issuers whose liquidity is weak, regardless of the assessment of any modifiers or comparable ratings analysis. (For the complete methodology on assessing corporate issuers' liquidity, see "Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers.")
37. The analysis of management and governance addresses how management's strategic competence, organizational effectiveness, risk management, and governance practices shape the company's competitiveness in the marketplace, the strength of its financial risk management, and the robustness of its governance. The range of management and governance assessments is: 1, strong; 2, satisfactory; 3, fair; and 4, weak. Typically, investment-grade anchor outcomes reflect strong or satisfactory management and governance, so there is no incremental benefit. Alternatively, a fair or weak assessment of management and governance can lead to a lower anchor. Also, a strong assessment for management and governance for a weaker entity is viewed as a favorable factor, under the criteria, and can have a positive impact on the final SACP outcome. For the full treatment of management and governance, see "Methodology: Management And Governance Credit Factors For Corporate Entities."

5. Comparable ratings analysis

38. The anchor, after adjusting for the modifiers, could change one notch up or down in order to arrive at an issuer's SACP based on our comparable ratings analysis, which is a holistic review of a company's stand-alone credit risk profile, in which we evaluate an issuer's credit characteristics in aggregate. A positive assessment leads to a one-notch improvement, a negative assessment leads to a one-notch reduction, and a neutral assessment indicates no change to the anchor. The application of comparable ratings analysis reflects the need to 'fine-tune' ratings outcomes, even after the use of each of the other modifiers. A positive or negative assessment is therefore likely to be common rather than exceptional.

B. Industry Risk

39. The analysis of industry risk addresses the major factors that S&P Global Ratings believes affect the risks that entities face in their respective industries. (See "Methodology: Industry Risk.")

C. Country Risk

40. The analysis of country risk addresses the major factors that S&P Global Ratings believes affect the country where entities operate. Country risks, which include economic, institutional and governance effectiveness, financial system, and payment culture/rule of law risks, influence overall credit risks for every rated corporate entity. (See "Country Risk Assessment Methodology And Assumptions.")

1. Assessing country risk for corporate issuers

41. The following paragraphs explain how the criteria determine the country risk assessment for a corporate entity. Once it's determined, we combine the country risk assessment with the issuer's industry risk assessment to calculate the issuer's CICRA (see section A, table 1). The CICRA is one of the factors of the issuer's business risk profile. If an issuer has very low to intermediate exposure to country risk, as represented by a country risk assessment of 1, 2, or 3, country risk is neutral to an issuer's CICRA. But if an issuer has moderately high to very high exposure to country risk, as represented by a country risk assessment of 4, 5, or 6, the issuer's CICRA could be influenced by its country risk assessment.
42. Corporate entities operating within a single country will receive a country risk assessment for that jurisdiction. For entities with exposure to more than one country, the criteria prospectively measure the proportion of exposure to each country based on forecasted EBITDA, revenues, or fixed assets, or other appropriate financial measures if EBITDA, revenue, or fixed assets do not accurately reflect the exposure to that jurisdiction.
43. Arriving at a company's blended country risk assessment involves multiplying its weighted-average exposures for each country by each country's risk assessment and then adding those numbers. For the weighted-average calculation, the criteria consider countries where the company generates more than 5% of its sales or where more than 5% of its fixed assets are located, and all weightings are rounded to the nearest 5% before averaging. We round the assessment to the nearest integer, so a weighted assessment of 2.2 rounds to 2, and a weighted assessment of 2.6 rounds to 3 (see table 6).

Table 6

Hypothetical Example Of Weighted-Average Country Risk For A Corporate Entity

Country	Weighting (% of business*)	Country risk§	Weighted country risk
Country A	45	1	0.45
Country B	20	2	0.4
Country C	15	1	0.15
Country D	10	4	0.4
Country E	10	2	0.2
Weighted-average country risk assessment (rounded to the nearest whole number)			2

*Using EBITDA, revenues, fixed assets, or other financial measures as appropriate. §On a scale from 1-6, lowest to highest risk.

44. A weak link approach, which helps us calculate a blended country risk assessment for companies with exposure to more than one country, works as follows: If fixed assets are based in a higher-risk country but products are exported to a lower-risk country, the company's exposure would be to the higher-risk country. Similarly, if fixed assets are based in a lower-risk country but export revenues are generated from a higher-risk country and cannot be easily redirected elsewhere, we measure exposure to the higher-risk country. If a company's supplier is located in a higher-risk country, and its supply needs cannot be easily redirected elsewhere, we measure exposure to the higher-risk country. Conversely, if the supply chain can be re-sourced easily to another country, we would not measure exposure to the higher risk country.
45. Country risk can be mitigated for a company located in a single jurisdiction in the following narrow case. For a company that exports the majority of its products overseas and has no direct exposure to a country's banking system that would affect its funding, debt servicing, liquidity, or ability to transfer payments from or to its key counterparties, we could reduce the country risk assessment by one category (e.g., 5 to 4) to determine the adjusted country risk assessment. This would only apply for countries where we considered the financial system risk subfactor a constraint on the overall country risk assessment for that country. For such a company, other country risks are not mitigated: economic risk still applies, albeit less of a risk than for a company that sells domestically (potential currency volatility remains a risk for exporters); institutional and governance effectiveness risk still applies (political risk may place assets at risk); and payment culture/rule of law risk still applies (legal risks may place assets and cross-border contracts at risk).
46. Companies will often disclose aggregated information for blocks of countries, rather than disclosing individual country information. If the information we need to estimate exposure for all countries is not available, we use regional risk assessments. Regional risk assessments are calculated as averages of the unadjusted country risk assessments, weighted by gross domestic product of each country in a defined region. The criteria assess regional risk on a 1-6 scale (strongest to weakest). Please see Appendix A, Table 26, which lists the constituent countries of the regions.
47. If an issuer does not disclose its country-level exposure or regional-level exposure, its individual country risk exposures or regional exposures will be estimated.

2. Adjusting the country risk assessment for diversity

48. We will adjust the country risk assessment for a company that operates in multiple jurisdictions and demonstrates a high degree of diversity of country risk exposures. As a result of this diversification, the company could have less exposure to country risk than the rounded weighted average of its exposures might indicate. Accordingly, the country risk assessment for a corporate entity could be adjusted if an issuer meets the conditions outlined in paragraph 49.
49. The preliminary country risk assessment is raised by one category to reflect diversity if all of the following four conditions are met:
- If the company's head office, as defined in paragraph 51, is located in a country with a risk assessment stronger than the preliminary country risk assessment;
 - If no country, with a country risk assessment equal to or weaker than the company's preliminary country risk assessment, represents or is expected to represent more than 20% of revenues, EBITDA, fixed assets, or other appropriate financial measures;
 - If the company is primarily funded at the holding level, or through a finance subsidiary in a similar or stronger country risk environment than the holding company, or if any local funding could be very rapidly substituted at the holding level; and
 - If the company's industry risk assessment is '4' or stronger.
50. The country risk assessment for companies that have 75% or more exposure to one jurisdiction cannot be improved and will, in most instances, equal the country risk assessment of that jurisdiction. But the country risk assessment for companies that have 75% or more exposure to one jurisdiction can be weakened if the balance of exposure is to higher risk jurisdictions.
51. We consider the location of a corporate head office relevant to overall risk exposure because it influences the perception of a company and its reputation--and can affect the company's access to capital. We determine the location of the head office on the basis of 'de facto' head office operations rather than just considering the jurisdiction of incorporation or stock market listing for public companies. De facto head office operations refers to the country where executive management and centralized high-level corporate activities occur, including strategic planning and capital raising. If such activities occur in different countries, we take the weakest country risk assessment applicable for the countries in which those activities take place.

D. Competitive Position

52. Competitive position encompasses company-specific factors that can add to, or partly offset, industry risk and country risk--the two other major factors of a company's business risk profile.
53. Competitive position takes into account a company's: 1) competitive advantage, 2) scale, scope, and diversity, 3) operating efficiency, and 4) profitability. A company's strengths and weaknesses on the first three components shape its competitiveness in the marketplace and the sustainability or vulnerability of its revenues and profit. Profitability can either confirm our initial assessment of competitive position or modify it, positively or negatively. A stronger-than-industry-average set of competitive position characteristics will strengthen a company's business risk profile. Conversely, a weaker-than-industry-average set of competitive position characteristics will weaken a company's business risk profile.
54. These criteria describe how we develop a competitive position assessment. They provide guidance on how we assess each component based on a number of subfactors. The criteria define the

weighting rules applied to derive a preliminary competitive position assessment. And they outline how this preliminary assessment can be maintained, raised, or lowered based on a company's profitability. S&P Global Ratings' competitive position analysis is both qualitative and quantitative.

1. The components of competitive position

55. A company's competitive position assessment can be: 1, excellent; 2, strong; 3, satisfactory; 4, fair; 5, weak; or 6, vulnerable.
56. The analysis of competitive position includes a review of:
 - Competitive advantage;
 - Scale, scope, and diversity;
 - Operating efficiency; and
 - Profitability.
57. We follow four steps to arrive at the competitive position assessment. First, we separately assess competitive advantage; scale, scope, and diversity; and operating efficiency (excluding any benefits or risks already captured in the issuer's CICRA assessment). Second, we apply weighting factors to these three components to derive a weighted-average assessment that translates into a preliminary competitive position assessment. Third, we assess profitability. Finally, we combine the preliminary competitive position assessment and the profitability assessment to determine the final competitive position assessment. Profitability can confirm, or influence positively or negatively, the competitive position assessment.
58. We assess the relative strength of each of the first three components by reviewing a variety of subfactors (see table 7). When quantitative metrics are relevant and available, we use them to evaluate these subfactors. However, our overall assessment of each component is qualitative. Our evaluation is forward-looking; we use historical data only to the extent that they provide insight into future trends.
59. We evaluate profitability by assessing two subcomponents: level of profitability (measured by historical and projected nominal levels of return on capital, EBITDA margin, and/or sector-specific metrics) and volatility of profitability (measured by historically observed and expected fluctuations in EBITDA, return on capital, EBITDA margin, or sector specific metrics). We assess both subcomponents in the context of the company's industry.

Table 7

Competitive Position Components And Subfactors		
Component	Explanation	Subfactors
1. Competitive advantage (see Appendix B, section 1)	The strategic positioning and attractiveness to customers of a company's products or services, and the fragility or sustainability of its business model	<ul style="list-style-type: none"> • Strategy • Differentiation/uniqueness/product positioning/bundling • Brand reputation and marketing • Product and/or service quality • Barriers to entry and customers' switching costs • Technological advantage and capabilities and vulnerability to/ability to drive technological displacement • Asset base characteristics
2. Scale, scope, and diversity (see Appendix B, section 2)	The concentration or diversification of business activities	<ul style="list-style-type: none"> • Diversity of products or services • Geographic diversity • Volumes, size of markets and revenues, and market share • Maturity of products or services
3. Operating efficiency (see Appendix B, section 3)	The quality and flexibility of a company's asset base and its cost management and structure	<ul style="list-style-type: none"> • Cost structure • Manufacturing processes • Working capital management • Technology
4. Profitability		<ul style="list-style-type: none"> • Level of profitability (historical and projected return on capital, EBITDA margin, and/or sector-relevant measure) • Volatility of profitability

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2. Assessing competitive advantage, scale, scope, and diversity, and operating efficiency

60. We assess competitive advantage; scale, scope, and diversity; and operating efficiency as: 1, strong; 2, strong/adequate; 3, adequate; 4, adequate/weak; or 5, weak. Tables 8, 9, and 10 provide guidance for assessing each component.
61. In assessing the components' relative strength, we place significant emphasis on comparative analysis. Peer comparisons provide context for evaluating the subfactors and the resulting component assessment. We review company-specific characteristics in the context of the company's industry, not just its narrower subsector. (See list of industries and subsectors in Appendix B, table 27.) For example, when evaluating an airline, we will benchmark the assessment against peers in the broader transportation-cyclical industry (including the marine and trucking subsectors), and not just against other airlines. Likewise, we will compare a home furnishing manufacturer with other companies in the consumer durables industry, including makers of appliances or leisure products. We might occasionally extend the comparison to other industries if, for instance, a company's business lines cross several industries, or if there are a limited

number of rated peers in an industry, subsector, or region. Additionally, our qualitative assessment of a company's competitive position can be influenced by environmental and social credit factors that, in our view, could positively or negatively affect an obligor's competitive position. If material and sufficiently certain, we could, for example, capture such environmental and social credit factors in the subfactors of brand reputation and cost structure. For example, a negative compliance track record, or the prospect of rapidly increasing pressure with respect to carbon emissions regulation, can result in wide-ranging adverse credit impacts, including a decline in market position and a significant hit to brand reputation.

62. An assessment of strong means that the company's strengths on that component outweigh its weaknesses, and that the combination of relevant subfactors results in lower-than-average business risk in the industry. An assessment of adequate means that the company's strengths and weaknesses with respect to that component are balanced and that the relevant subfactors add up to average business risk in the industry. A weak assessment means that the company's weaknesses on that component override any strengths and that its subfactors, in total, reveal higher-than-average business risk in the industry.
63. Where a component is not clearly strong or adequate, we may assess it as strong/adequate. A component that is not clearly adequate or weak may end up as adequate/weak.
64. Although we review each subfactor, we don't assess each individually--and we seek to understand how they may reinforce or weaken each other. A component's assessment combines the relative strengths and importance of its subfactors. For any company, one or more subfactors can be unusually important--even factors that aren't common in the industry. The industry KCF articles or "Guidance: Corporate Methodology" can identify subfactors that are consistently more important, or happen not to be relevant, in a given industry.
65. Not all subfactors may be equally important, and a single one's strength or weakness may outweigh all the others. For example, if notwithstanding a track record of successful product launches and its strong brand equity, a company's strategy doesn't appear adaptable, in our view, to changing competitive dynamics in the industry, we will likely not assess its competitive advantage as strong. Similarly, if its revenues came disproportionately from a narrow product line, we might view this as compounding its risk of exposure to a small geographic market and, thus, assess its scale, scope, and diversity component as weak.
66. From time to time companies will, as a result of shifting industry dynamics or strategies, expand or shrink their product or service lineups, alter their cost structures, encounter new competition, or have to adapt to new regulatory environments. In such instances, we will reevaluate all relevant subfactors (and component assessments).

Table 8

Competitive Advantage Assessment

Qualifier	What it means	Guidance
Strong	<ul style="list-style-type: none"> The company has a major competitive advantage due to one or a combination of factors that supports revenue and profit growth, combined with lower-than-average volatility of profits. There are strong prospects that the company can sustain this advantage over the long term. This should enable the company to withstand economic downturns and competitive and technological threats better than its competitors can. Any weaknesses in one or more subfactors are more than offset by strengths in other subfactors that produce sustainable and profitable revenue growth. 	<ul style="list-style-type: none"> The company's business strategy is highly consistent with, and adaptable to, industry trends and conditions and supports its leadership in the marketplace. It consistently develops and markets well-differentiated products or services, aligns products with market demand, and enhances the attractiveness or uniqueness of its value proposition through bundling. Its superior track record of product development, service quality, and customer satisfaction and retention support its ability to maintain or improve its market share. Its products or services command a clear price premium relative to its competitors' thanks to its brand equity, technological leadership, or quality of service; it is able to sustain this advantage with innovation and effective marketing. It benefits from barriers to entry from regulation, market characteristics, or intrinsic benefits (such as patents, technology, or customer relationships) that effectively reduce the threat of new competition. It has demonstrated a commitment and ability to effectively reinvest in its asset base, as evidenced by a continuous pipeline of new products and/or improvement in key capabilities, such as employee retention, customer care, distribution, and supplier relations. These tangible and intangible assets support long term prospects of sustainable and profitable growth.
Adequate	<ul style="list-style-type: none"> The company has some competitive advantages, but not so large as to create a superior business model or durable benefit compared to its peers'. It has some but not all drivers of competitiveness. Certain factors support the business' long-term viability and should result in average profitability and average profit volatility during recessions or periods of increased competition. However, these drivers are partially offset by the company's disadvantages or lack of sustainability of other factors. 	<ul style="list-style-type: none"> The company's strategy is well adapted to marketplace conditions, but it is not necessarily a leader in setting industry trends. It exhibits neither superior nor subpar abilities with respect to product or service differentiation and positioning. Its products command no price premium or advantage relative to competing brands as a result of its brand equity or its technological positioning. It may enjoy some barriers to entry that provide some defense against competitors but don't overpower them. It faces some risk of product/service displacement or substitution longer term. Its metrics of product or service quality and customer satisfaction or retention are in line with its industry's average. The company could lose customers to competitors if it makes operational missteps. Its asset profile does not exhibit particularly superior or inferior characteristics compared to other industry participants. These assets generate consistent revenue and profit growth although long-term prospects are subject to some uncertainty.

Weak	<ul style="list-style-type: none"> • The company has few, if any, competitive advantages and a number of competitive disadvantages. • Because the company lacks many competitive advantages, its long-term prospects are uncertain, and its profit volatility is likely to be higher than average for its industry. • The company is less likely than its competitors to withstand economic, competitive, or technological threats. • Alternatively, the company has weaknesses in one or more subfactors that could keep its profitability below average and its profit volatility above average during economic downturns or periods of increased competition. 	<ul style="list-style-type: none"> • The company's strategy is inconsistent with, or not well adapted to, marketplace trends and conditions. • There is evidence of little innovation, slowness in developing and marketing new products, an inability to raise prices, and/or ineffective bundling. • Its products generally enjoy no price premium relative to competing brands and it often has to sell its products at a lower price than its peers can command. • It has suffered or is at risk of suffering customer defections due to falling quality and because customers perceive its products or services to be less valuable than those of its competitors. • Its revenues and market shares are vulnerable to aggressive pricing by existing or new competitors or to technological displacement risks over the near to medium term. • Its metrics of product or service quality and customer satisfaction or retention are weaker than the industry average. • Its reinvestment in its business is lower than its peers', its ability to retain operational talent is limited, its distribution network is inefficient, and its revenue could stagnate or decline as result.
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Table 9

Scale, Scope, And Diversity

Qualifier	What it means	Guidance
Strong	<ul style="list-style-type: none"> The company's overall scale, scope, and diversity supports stable revenues and profits by rendering it essentially invulnerable to all but the most disruptive combinations of adverse factors, events, or trends. Its significant advantages in scale, scope, and diversity enable it to withstand economic, regional, competitive, and technological threats better than its competitors can. 	<ul style="list-style-type: none"> The company's range of products or services is among the most comprehensive in its sector. It derives its revenue and profits from a broader set of products or services than the industry average. Its products and services enjoy industry-leading market shares relative to other participants in its industry. It does not rely on a particular customer or small group of customers. If it does, the customer(s) is/are of high credit quality, their demand is highly sustainable, or the company and its customer(s) have significant interdependence. It does not depend on any particular supplier or related group of suppliers that it could not easily replace. If it does, the supplier(s) is/are of high credit quality, or the company and its supplier(s) have significant interdependence. It enjoys broader geographic diversity than its peers and doesn't overly depend on a single regional or local market. If it does, the market is local, often for regulatory reasons. The company's production or service centers are diversified across several locations. It holds a strategic investment that provides positive business diversification.
Adequate	<ul style="list-style-type: none"> The company's overall scale, scope, and diversity is comparable to its peers'. Its ability to withstand economic, competitive, or technological threats is comparable to the ability of others within its sector. 	<ul style="list-style-type: none"> The company has a broad range of products or services compared with its competitors and doesn't depend on a particular product or service for the majority of its revenues and profits. Its market share is average compared with that of its competitors. Its dependence on or concentration of key customers is no higher than the industry average, and the loss of a top customer would be unlikely to pose a high risk to its business stability. It isn't overly dependent on any supplier or regional group of suppliers that it couldn't easily replace. It doesn't depend excessively on a single local or regional market, and its geographic footprint of production and revenue compares with that of other industry participants.

Weak	<ul style="list-style-type: none"> The company's lack of scale, scope, and diversity compromises the stability and sustainability of its revenues and profits. The company's vulnerability to, or reliance on, various elements of scale, scope, and diversity leaves it less likely than its competitors to withstand economic, competitive, or technological threats. 	<ul style="list-style-type: none"> The company's product or service lineup is somewhat limited compared to those of its sector peers. The company derives its profits from a narrow group of products or services, and has not achieved significant market share compared with its peers. Demand for its products or services is lower than for its competitors', and this trend isn't improving. It relies heavily on a particular customer or small group of customers, and the characteristics of the customer base do not mitigate this risk. It depends on a particular supplier or group of suppliers, which it would not be able to easily replace without incurring high switching costs. It depends disproportionately on a single local or regional economy for selling its goods or services, and the company's industry is global. Key production assets are concentrated by location, and the company has limited ability to quickly replace them without incurring high costs relative to its profits.
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Table 10

Operating Efficiency Assessment

Qualifier	What it means	Guidance
Strong	<ul style="list-style-type: none"> The company maximizes revenues and profits via intelligent use of assets and by minimizing costs and increasing efficiency. The company's cost structure should enable it to withstand economic downturns better than its peers. 	<ul style="list-style-type: none"> The company has a lower cost structure than its peers resulting in higher profits or margins even if capacity utilization or demand are well below ideal levels and during down economic and industry cycles. It has demonstrated its ability to efficiently manage fixed and variable costs in cyclical downturns, and has a history of successful and often ongoing cost reductions programs. Its capacity utilization is close to optimal at the peak of the industry cycle and outperforms the industry average over the cycle. It has demonstrated that it can pass along increases in input costs and we expect this will continue. It has a very high ability to adjust production and labor costs in response to changes in demand without repercussions for product quality, or has demonstrated the ability to operate very profitably in a more costly or less flexible labor environment. Its suppliers have demonstrated an ability to meet swings in demand without causing bottlenecks or quality issues, and can absorb all but the most severe supply chain disruptions. It has superior working capital management, as evidenced by a consistently better-than-average "cash conversion cycle" and other working capital metrics, supporting higher cash flow and lower funding costs. Its investments in technology are likely to increase revenue growth and/or improve its cost structure and operating efficiency.

- Adequate**
- A combination of cost structure and efficiency should support sustainable profits with average profit volatility relative to the company's peers. Its cost structure is similar to its peers'.
 - The company has demonstrated the ability to manage some fixed and most variable costs except during periods of extremely weak demand, and has some history of cutting costs in good and bad times.
 - Its cost structure permits some profitability even if capacity utilization or customer demand is well below ideal levels. The company can at least break even during most of the industry/demand cycle.
 - Its cost structure is in line with its peers'. For example, its selling, general, and administrative (SG&A) expense as a percent of revenue is similar to its peers' and is likely to be stable.
 - It has demonstrated an ability to adjust labor costs in most scenarios without hurting product output and quality, or can operate profitably in a more costly or less flexible labor environment; it has some success passing on input cost increases, although perhaps only partially or with time lag.
 - Its suppliers have met typical swings in demand without causing widespread bottlenecks or quality issues, and the company has some capacity to withstand limited supply chain disruptions.
 - It has good working capital management, evidenced by its cash conversion cycle and working capital metrics that are on par with its peers'.
 - Its investments in technology are likely to help it at least maintain its cost structure and current level of operating efficiency.

- Weak**
- The company's operating efficiency leaves it with lower profitability than its peers' due to lower asset utilization and/or a higher, less flexible cost structure.
 - The company's cost structure permits better-than-marginal profitability only if capacity utilization is at the top of the cycle or during periods of strong demand. The company needs solid and sustained industry conditions to generate fair profitability.
 - It has limited success or capability of managing fixed costs and even most typically variable costs are fixed in the next two to three years.
 - It has a limited track record of successful cost reductions, such as reducing labor costs in the face of swings in demand, or it has limited ability to pass along increases in input costs.
 - Its costs are higher than its peers'. For example, the company's SG&A expense as a percent of revenue is above that of its peers, and likely to remain so.
 - Its suppliers may face bottlenecks or quality issues in the event of modest swings in demand, or have limited technological capabilities. There is evidence that a limited supply chain disruption would make it difficult for suppliers to meet their commitments to the company.
 - Its working capital management is weak, as evidenced by working capital metrics that are significantly worse than those of its peers, resulting in lower cash flow and higher funding costs.
 - It lacks investments in technology, which could hurt its revenue growth and/or result in a higher cost structure and less efficient operations relative to its peers'.

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3. Determining the preliminary competitive position assessment: Competitive position group profile and category weightings

67. After assessing competitive advantage; scale, scope, and diversity; and operating efficiency, we determine a company's preliminary competitive position assessment by ascribing a specific weight to each component. The weightings depend on the company's Competitive Position Group Profile (CPGP).
68. There are six possible CPGPs: 1) services and product focus, 2) product focus/scale driven, 3) capital or asset focus, 4) commodity focus/cost driven, 5) commodity focus/scale driven, and 6) national industry and utilities (see table 11 for definitions and characteristics).

Table 11

Competitive Position Group Profile (CPGP)

	Definition and characteristics	Examples
Services and product focus	Brands, product quality or technology, and service reputation are typically key differentiating factors for competing in the industry. Capital intensity is typically low to moderate, although supporting the brand often requires ongoing reinvestment in the asset base.	Typically, these are companies in consumer-facing light manufacturing or service industries. Examples include branded drug manufacturers, software companies, and packaged food.
Product focus/scale driven	Product and geographic diversity, as well as scale and market position are key differentiating factors. Sophisticated technology and stringent quality controls heighten risk of product concentration. Product preferences or sales relationships are more important than branding or pricing. Cost structure is relatively unimportant.	The sector most applicable is medical device/equipment manufacturers, particularly at the higher end of the technology scale. These companies largely sell through intermediaries, as opposed to directly to the consumer.
Capital or asset focus	Sizable capital investments are generally required to sustain market position in the industry. Brand identification is of limited importance, although product and service quality often remain differentiating factors.	Heavy manufacturing industries typically fall into this category. Examples include telecom infrastructure manufacturers and semiconductor makers.
Commodity focus/cost driven	Cost position and efficiency of production assets are more important than size, scope, and diversification. Brand identification is of limited importance	Typically, these are companies that manufacture products from natural resources that are used as raw materials by other industries. Examples include forest and paper products companies that harvest timber or produce pulp, packaging paper, or wood products.
Commodity focus/scale driven	Pure commodity companies have little product differentiation, and tend to compete on price and availability. Where present, brand recognition or product differences are secondary or of less importance.	Examples range from pure commodity producers and most oil and gas upstream producers, to some producers with modest product or brand differentiation, such as commodity foods.
National industries and utilities	Government policy or control, regulation, and taxation and tariff policies significantly affect the competitive dynamics of the industry (see paragraphs 72-73).	An example is a water-utility company in an emerging market.

69. The nature of competition and key success factors are generally prescribed by industry characteristics, but vary by company. Where service, product quality, or brand equity are important competitive factors, we'll give the competitive advantage component of our overall assessment a higher weighting. Conversely, if the company produces a commodity product, differentiation comes less into play, and we will more heavily weight scale, scope, and diversity as well as operating efficiency (see table 12).

Table 12

Competitive Position Group Profiles (CPGPs) And Category Weightings

Component	--(%)--					
	Services and product focus	Product focus/scale driven	Capital or asset focus	Commodity focus/cost driven	Commodity focus/scale driven	National industries and utilities
1. Competitive advantage	45	35	30	15	10	60
2. Scale, scope, and diversity	30	50	30	35	55	20
3. Operating efficiency	25	15	40	50	35	20
Total	100	100	100	100	100	100
Weighted-average assessment*	1.0-5.0	1.0-5.0	1.0-5.0	1.0-5.0	1.0-5.0	1.0-5.0

*1 (strong), 2 (strong/adequate), 3 (adequate), 4 (adequate/weak), 5 (weak).

70. We place each of the defined industries (see Appendix B, table 27) into one of the six CPGPs (see above and Appendix B, table 27). This is merely a starting point for the analysis, since we recognize that some industries are less homogenous than others, and that company-specific strategies do affect the basis of competition.
71. In fact, the criteria allow for flexibility in selecting a company's group profile (with its category weightings). Reasons for selecting a profile different than the one suggested in the guidance table could include:
- The industry is heterogeneous, meaning that the nature of competition differs from one subsector to the next, and possibly even within subsectors. The KCF article for the industry or the relevant section in "Guidance: Corporate Methodology" will identify such circumstances.
 - A company's strategy could affect the relative importance of its key factors of competition.
72. For example, the standard CPGP for the telecom and cable industry is services and product focus. While this may be an appropriate group profile for carriers and service providers, an infrastructure provider may be better analyzed under the capital or asset focus group profile. Other examples: In the capital goods industry, a construction equipment rental company may be analyzed under the capital or asset focus group profile, owing to the importance of efficiently managing the capital spending cycle in this segment of the industry, whereas a provider of hardware, software, and services for industrial automation might be analyzed under the services and product focus group profile, if we believe it can achieve differentiation in the marketplace based on product performance, technology innovation, and service.
73. In some industries, the effects of government policy, regulation, government control, and taxation and tariff policies can significantly alter the competitive dynamics, depending on the country in which a company operates. That can alter our assessment of a company's competitive advantage; scale, size, and diversity; or operating efficiency. When industries in given countries have risks that differ materially from those captured in our global industry risk profile and assessment (see "Methodology: Industry Risk," section B), we will weight competitive advantage more heavily to capture the effect, positive or negative, on competitive dynamics. The assessment of competitive advantage; scale, size, and diversity; and operating efficiency will reflect advantages or disadvantages based on these national industry risk factors. Table 13 identifies the circumstances under which national industry risk factors are positive or negative.

Table 13

National Industry Risk Factors	
National industry risk factors are positive	<ul style="list-style-type: none"> Government policy including regulation, ownership, and taxation is supportive and has a good track record of mitigating risks to the stability of industry margins. Any government ownership, tariff, and taxation policy supports growth prospects for revenues and profit generation. There is very little discernible risk of negative policy, regulatory, ownership, or taxation changes that could threaten business stability.
National industry risk factors are negative	<ul style="list-style-type: none"> Government policy and regulation has a weak track record of stabilizing margins and reducing industry risks. Any government ownership, tariff, and taxation policy undermine growth prospects for revenues and profit generation. There is an increasing risk of negative policy, ownership, and taxation changes that could undermine industry stability.

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74. When national industry risk factors are positive for a company, typically they support revenue growth, profit growth, higher EBITDA margins, and/or lower-than-average volatility of profits. Often, these benefits provide barriers to entry that impede or even bar new market entrants, which should be reflected in the competitive advantage assessment. These benefits may also include risk mitigants that enable a company to withstand economic downturns and competitive and technological threats better in its local markets than its global competitors can. The scale, scope, and diversity assessment might also benefit from these policies if the company is able to withstand economic, regional, competitive, and technological threats better than its global competitors can. Likewise, the company's operating efficiency assessment may improve if, as a result, it is better able than its global competitors to withstand economic downturns, taking into account its cost structure.
75. Conversely, when national industry risk factors are negative for a company, typically they detract from revenue growth and profit growth, shrink EBITDA margins, and/or increase the average volatility of profits. The company may also have less protection against economic downturns and competitive and technological threats within its local markets than its global competitors do. We may also adjust the company's scale, scope, and diversity assessment lower if, as a result of these policies, it is less able to withstand economic, regional, competitive, and technological threats than its global competitors can. Likewise, we may adjust its operating efficiency assessment lower if, as a result of these policies, it is less able to withstand economic downturns, taking into account the company's cost structure.
76. An example of when we might use a national industry risk factor would be for a telecommunications network owner that benefits from a monopoly network position, supported by substantial capital barriers to entry, and as a result is subject to regulated pricing for its services. Accordingly, in contrast to a typical telecommunications company, our analysis of the company's competitive position would focus more heavily on the monopoly nature of its operations, as well as the nature and reliability of the operator's regulatory framework in supporting future revenue and earnings. If we viewed the regulatory framework as being supportive of the group's future earnings stability, and we considered its monopoly position to be sustainable, we would assess these

national industry risk factors as positive in our assessment of the group's competitive position.

77. The weighted average assessment translates into the preliminary competitive position assessment on a scale of 1 to 6, where one is best. Table 14 describes the matrix we use to translate the weighted average assessment of the three components into the preliminary competitive position assessment.

Table 14

Translation Table For Converting Weighted-Average Assessments Into Preliminary Competitive Position Assessments

Weighted average assessment range	Preliminary competitive position assessment
1.00 – 1.50	1
>1.50 – 2.25	2
>2.25 – 3.00	3
>3.00 – 3.75	4
>3.75 – 4.50	5
>4.50 – 5.00	6

4. Assessing profitability

78. We assess profitability on the same scale of 1 to 6 as the competitive position assessment.
79. The profitability assessment consists of two subcomponents: level of profitability and the volatility of profitability, which we assess separately. We use a matrix to combine these into the final profitability assessment.

a) Level of profitability

80. The level of profitability is assessed in the context of the company's industry. We most commonly measure profitability using return on capital (ROC) and EBITDA margins, but we may also use sector-specific ratios. Importantly, as with the other components of competitive position, we review profitability in the context of the industry in which the company operates, not just in its narrower subsector. (See list of industries and subsectors in Appendix B, table 27.)
81. We assess level of profitability on a three-point scale: above average, average, and below average. We may establish numeric guidance, for instance by stating that an ROC above 12% is considered above average, between 8%-12% is average, and below 8% is below average for the industry, or by differentiating between subsectors in the industry. In the absence of numeric guidance, we compare a company against its peers across the industry. When establishing numeric guidance for assessing profitability within an industry or subsector, we typically consider the distribution of profitability measures across rated issuers in the sector. Depending on the shape of the distribution, we choose logical breakpoints between above average, average, and below average profitability. For instance, for a distribution that resembles a normal curve, we typically assess the top quartile of the relevant profitability indicator to be above average, the two middle quartiles average, and the bottom quartile below average. For a relatively flat distribution curve, we typically assess the top third to be above average, the middle third to be average, and the bottom third to be below average. We also may take averages of historical data or adjust the thresholds between the three ranges to consider factors such as variation over the business cycle and across regions. Finally, we may incorporate our expertise in the sector to adjust for underlying M&A trends or

other distortions, as appropriate.

82. We calculate profitability ratios generally based on a five-year average, consisting of two years of historical data, our projections for the current year (incorporating any reported year-to-date results and estimates for the remainder of the year), and the next two financial years. There may be situations where we consider longer or shorter historical results or forecasts, depending on such factors as availability of financials, transformational events (such as mergers or acquisitions [M&A]), cyclical distortion (such as peak or bottom of the cycle metrics that we do not deem fully representative of the company's level of profitability), and we take into account improving or deteriorating trends in profitability ratios in our assessment. For example, a company's profitability trend may be forecast to decline over the next two years because of levied carbon taxes and our anticipation that such carbon tax rates will increase each year as regulations tighten.

b) Volatility of profitability

83. We base the volatility of profitability on the standard error of the regression (SER) for a company's historical EBITDA, EBITDA margins, or return on capital. The KCF articles and "Guidance: Corporate Methodology" detail which measures are most appropriate for a given industry or set of companies. For each of these measures, we divide the standard error by the average of that measure over the time period in order to ensure better comparability across companies.
84. The SER is a statistical measure that is an estimate of the deviation around a 'best fit' linear trend line. We regress the company's EBITDA, EBITDA margins, or return on capital against time. A key advantage of SER over standard deviation or coefficient of variation is that it doesn't view upwardly trending data as inherently more volatile. At the same time, we recognize that SER, like any statistical measure, may understate or overstate expected volatility and thus we will make qualitative adjustments where appropriate (see paragraphs 86-90). Furthermore, we only calculate SER when companies have at least seven years of historical annual data and have not significantly changed their line of business during the timeframe, to ensure that the results are meaningful.
85. As with the level of profitability, we evaluate a company's SER in the context of its industry group. For most industries, we establish a six-point scale with 1 capturing the least volatile companies, i.e., those with the lowest SERs, and 6 identifying companies whose profits are most volatile. We have established industry-specific SER parameters using the most recent seven years of data for companies within each sector. We believe that seven years is generally an adequate number of years to capture a business cycle. (See "Guidance: Corporate Methodology" for industry-specific SER parameters.) For companies whose business segments cross multiple industries, we evaluate the SER in the context of the organization's most dominant industry--if that industry represents at least two-thirds of the organization's EBITDA, sales, or other relevant metric. If the company is a conglomerate and no dominant industry can be identified, we will evaluate its profit volatility in the context of SER guidelines for all nonfinancial companies.
86. In certain circumstances, the SER derived from historical information may understate--or overstate--expected future volatility, and we may adjust the assessment downward or upward. The scope of possible adjustments depends on certain conditions being met as described below.
87. We might adjust the SER-derived volatility assessment to a worse assessment (i.e., to a higher assessment for greater volatility) by up to two categories if the expected level of volatility isn't apparent in historical numbers, and the company either:
- Has a weighted country risk assessment of 4 or worse, which may, notwithstanding past performance, result in a less stable business environment going forward;

- Operates in a subsector of the industry that may be prone to higher technology or regulation changes, or other potential disruptive risks that have not emerged over the seven year period;
 - Is of limited size and scope, which will often result in inherently greater vulnerability to external changes; or
 - Has pursued material M&A or internal growth projects that obscure the company's underlying performance trend line. As an example, a company may have consummated an acquisition during the trough of the cycle, masking what would otherwise be a significant decline in performance.
88. The choice of one or two categories depends on the degree of likelihood that the related risks will materialize and our view of the likely severity of these risks.
89. Conversely, we may adjust the SER-derived volatility assessment to a better assessment (i.e., to a lower assessment reflecting lower volatility) by up to two categories if we observe that the conditions historically leading to greater volatility have receded and are misrepresentative. This will be the case when:
- The company grew at a moderately faster, albeit more uneven, pace relative to the industry. Since we measure volatility around a linear trend line, a company growing at a constant percentage of moderate increase (relative to the industry) or an uneven pace (e.g., due to "lumpy" capital spending programs) could receive a relatively unfavorable assessment on an unadjusted basis, which would not be reflective of the company's performance in a steady state. (Alternatively, those companies that grow at a significantly higher-than-average industry rate often do so on unsustainable rates of growth or by taking on high-risk strategies. Companies with these high-risk growth strategies would not receive a better assessment and could be adjusted to a worse assessment;)
 - The company's geographic, customer, or product diversification has increased in scope as a result of an acquisition or rapid expansion (e.g. large, long-term contracts wins), leading to more stability in future earnings in our view; or
 - The company's business model is undergoing material change that we expect will benefit earnings stability, such as a new regulatory framework or major technology shift that is expected to provide a significant competitive hedge and margin protection over time.
 - The company has experienced a sharp drop in demand for its products and services due to the materialization of social credit factors related to health and safety, such as a pandemic, which had a significant negative impact on commercial activity for a period of time, but which we view as temporary and not indicative of future earnings trends.
-
90. The choice of one or two categories depends on the degree of likelihood that the related risks will materialize and our view of the likely severity of these risks.
91. If the company either does not have at least seven years of annual data or has materially changed its business lines or undertaken abnormally high levels of M&A during this time period, then we do not use its SER to assess the volatility of profitability. In these cases, we use a proxy to establish the volatility assessment. If there is a peer company that has, and is expected to continue having, very similar profitability volatility characteristics, we use the SER of that peer entity as a proxy.
92. If no such matching peer exists, or one cannot be identified with enough confidence, we perform an assessment of expected volatility based on the following rules:
- An assessment of 3 if we expect the company's profitability, supported by available historical evidence, will exhibit a volatility pattern in line with, or somewhat less volatile than, the industry

average.

- An assessment of 2 based on our confidence, supported by available historical evidence, that the company will exhibit lower volatility in profitability metrics than the industry's average. This could be underpinned by some of the factors listed in paragraph 89, whereas those listed in paragraph 87 would typically not apply.
- An assessment of 4 or 5 based on our expectation that profitability metrics will exhibit somewhat higher (4), or meaningfully higher (5) volatility than the industry, supported by available historical evidence, or because of the applicability of possible adjustment factors listed in paragraph 87.
- Assessments of either 1 or 6 are rarely assigned and can only be achieved based on a combination of data evidence and very high confidence tests. For an assessment of 1, we require strong evidence of minimal volatility in profitability metrics compared with the industry, supported by at least five years of historical information, combined with a very high degree of confidence that this will continue in the future, including no country risk, subsector risk or size considerations that could otherwise warrant a worse assessment as per paragraph 87. For an assessment of 6 we require strong evidence of very high volatility in profitability metrics compared with the industry, supported by at least five years of historical information and very high confidence that this will continue in the future.

93. Next, we combine the level of profitability assessment with the volatility assessment to determine the final profitability assessment using the matrix in Table 15.

Table 15

Profitability Assessment

Level of profitability assessment	--Volatility of profitability assessment--					
	1	2	3	4	5	6
Above average	1	1	2	3	4	5
Average	1	2	3	4	5	6
Below average	2	3	4	5	6	6

5. Combining the preliminary competitive position assessment with profitability

94. The fourth and final step in arriving at a competitive position assessment is to combine the preliminary competitive position assessment with the profitability assessment. We use the combination matrix in Table 16, which shows how the profitability assessment can confirm, strengthen, or weaken (by up to one category) the overall competitive position assessment.

Table 16

Combining The Preliminary Competitive Position Assessment And Profitability Assessment

Profitability assessment	--Preliminary competitive position assessment--					
	1	2	3	4	5	6
1	1	2	2	3	4	5
2	1	2	3	3	4	5

Table 16

Combining The Preliminary Competitive Position Assessment And Profitability Assessment (cont.)

Profitability assessment	--Preliminary competitive position assessment--					
	1	2	3	4	5	6
3	2	2	3	4	4	5
4	2	3	3	4	5	5
5	2	3	4	4	5	6
6	2	3	4	5	5	6

95. We generally expect companies with a strong preliminary competitive position assessment to exhibit strong and less volatile profitability metrics. Conversely, companies with a relatively weaker preliminary competitive position assessment will generally have weaker and/or more volatile profitability metrics. Our analysis of profitability helps substantiate whether management is translating any perceived competitive advantages, diversity benefits, and cost management measures into higher earnings and more stable return on capital and return on sales ratios than the averages for the industry. When profitability differs markedly from what the preliminary/anchor competitive position assessment would otherwise imply, we adjust the competitive position assessment accordingly.
96. Our method of adjustment is biased toward the preliminary competitive position assessment rather than toward the profitability assessment (e.g., a preliminary competitive assessment of 6 and a profitability assessment of 1 will result in a final assessment of 5).

E. Cash Flow/Leverage

97. The pattern of cash flow generation, current and future, in relation to cash obligations is often the best indicator of a company's financial risk. The criteria assess a variety of credit ratios, predominately cash flow-based, which complement each other by focusing on the different levels of a company's cash flow waterfall in relation to its obligations (i.e., before and after working capital investment, before and after capital expenditures, before and after dividends), to develop a thorough perspective. Moreover, the criteria identify the ratios that we think are most relevant to measuring a company's credit risk based on its individual characteristics and its business cycle.
98. For the analysis of companies with intermediate or stronger cash flow/leverage assessments (a measure of the relationship between the company's cash flows and its debt obligations as identified in paragraphs 106 and 124), we primarily evaluate cash flows that reflect the considerable flexibility and discretion over outlays that such companies typically possess. For these entities, the starting point in the analysis is cash flows before working capital changes plus capital investments in relation to the size of a company's debt obligations in order to assess the relative ability of a company to repay its debt. These "leverage" or "payback" cash flow ratios are a measure of how much flexibility and capacity the company has to pay its obligations.
99. For entities with significant or weaker cash flow/leverage assessments (as identified in paragraphs 105 and 124), the criteria also call for an evaluation of cash flows in relation to the carrying cost or interest burden of a company's debt. This will help us assess a company's relative and absolute ability to service its debt. These "coverage"- or "debt service"-based cash flow ratios are a measure of a company's ability to pay obligations from cash earnings and the cushion the company possesses through stress periods. These ratios, particularly interest coverage ratios, become more important the further a company is down the credit spectrum.

1. Assessing cash flow/leverage

100. Under the criteria, we assess cash flow/leverage as 1, minimal; 2, modest; 3, intermediate; 4, significant; 5, aggressive; or 6, highly leveraged. To arrive at these assessments, the criteria combine the assessments of a variety of credit ratios, predominately cash flow-based, which complement each other by focusing attention on the different levels of a company's cash flow waterfall in relation to its obligations. For each ratio, there is an indicative cash flow/leverage assessment that corresponds to a specified range of values in one of three given benchmark tables (see tables 17, 18, and 19). We derive the final cash flow/leverage assessment for a company by determining the relevant core ratios, anchoring a preliminary cash flow assessment based on the relevant core ratios, determining the relevant supplemental ratio(s), adjusting the preliminary cash flow assessment according to the relevant supplemental ratio(s), and, finally, modifying the adjusted cash flow/leverage assessment for any material volatility.

2. Core and supplemental ratios

a) Core ratios

101. For each company, we calculate two core credit ratios--funds from operations (FFO) to debt and debt to EBITDA--in accordance with S&P Global Ratings' ratios and adjustments criteria (see "Corporate Methodology: Ratios And Adjustments"). We compare these payback ratios against benchmarks to derive the preliminary cash flow/leverage assessment for a company. These ratios are also useful in determining the relative ranking of the financial risk of companies.

b) Supplemental ratios

102. The criteria also consider one or more supplemental ratios (in addition to the core ratios) to help develop a fuller understanding of a company's financial risk profile and fine-tune our cash flow/leverage analysis. Supplemental ratios could either confirm or adjust the preliminary cash flow/leverage assessment. The confirmation or adjustment of the preliminary cash flow/leverage assessment will depend on the importance of the supplemental ratios as well as any difference in indicative cash flow/leverage assessment between the core and supplemental ratios as described in section E.3.b.

103. The criteria typically consider five standard supplemental ratios, although the relevant KCF article or "Guidance: Corporate Methodology" may introduce additional supplemental ratios or focus attention on one or more of the standard supplemental ratios. The standard supplemental ratios include three payback ratios--cash flow from operations (CFO) to debt, free operating cash flow (FOCF) to debt, and discretionary cash flow (DCF) to debt--and two coverage ratios, FFO plus interest paid to cash interest paid and EBITDA to interest.

104. The criteria provide guidelines as to the relative importance of certain ratios if a company exhibits characteristics such as high leverage, working capital intensity, capital intensity, or high growth.

105. If the preliminary cash flow/leverage assessment is significant or weaker (see section E.3), then two coverage ratios, FFO plus cash interest paid to cash interest paid and EBITDA to interest, will be given greater importance as supplemental ratios. For the definition of these metrics please see "Corporate Methodology: Ratios And Adjustments".

106. If the preliminary cash flow/leverage assessment is intermediate or stronger, the criteria first

apply the three standard supplemental ratios of CFO to debt, FOCF to debt, and DCF to debt. When FOCF to debt and DCF to debt indicate a cash flow/leverage assessment that is lower than the other payback-ratio-derived cash flow/leverage assessments, it signals that the company has either larger than average capital spending or other non-operating cash distributions (including dividends). If these differences persist and are consistent with a negative trend in overall ratio levels, which we believe is not temporary, then these supplemental leverage ratios will take on more importance in the analysis.

107. If the supplemental ratios indicate a cash flow/leverage assessment that is different than the preliminary cash flow/leverage assessment, it could suggest an unusual debt service or fixed charge burden, working capital or capital expenditure profile, or unusual financial activity or policies. In such cases, we assess the sustainability or persistence of these differences. For example, if either working capital or capital expenditures are unusually low, leading to better indicated assessments, we examine the sustainability of such lower spending in the context of its impact on the company's longer term competitive position. If there is a deteriorating trend in the company's asset base, we give these supplemental ratios less weight. If either working capital or capital expenditures are unusually high, leading to weaker indicated assessments, we examine the persistence and need for such higher spending. If elevated spending levels are required to maintain a company's competitive position, for example to maintain the company's asset base, we give more weight to these supplemental ratios.
108. For capital-intensive companies, EBITDA and FFO may overstate financial strength, whereas FOCF may be a more accurate reflection of their cash flow in relation to their financial obligations. The criteria generally consider a capital-intensive company as having ongoing capital spending to sales of greater than 10%, or depreciation to sales of greater than 8%. For these companies, the criteria place more weight on the supplementary ratio of FOCF to debt. Where we place more analytic weight on FOCF to debt, we also seek to estimate the amount of maintenance or full cycle capital required (see Appendix C) under normal conditions (we estimate maintenance or full-cycle capital expenditure required because this is not a reported number). The FOCF figure may be adjusted by adding back estimated discretionary capital expenditures. The adjusted FOCF to debt based on maintenance or full cycle capital expenditures often helps determine how much importance to place on this ratio. If both the FOCF to debt and the adjusted (for estimated discretionary capital spending) FOCF to debt derived assessments are different from the preliminary cash/flow leverage assessment, then these supplemental leverage ratios take on more importance in the analysis.
109. For working-capital-intensive companies, EBITDA and FFO may also overstate financial strength, and CFO may be a more accurate measure of the company's cash flow in relation to its financial risk profile. Under the criteria, if a company has a working capital-to-sales ratio that exceeds 25% or if there are significant seasonal swings in working capital, we generally consider it to be working-capital-intensive. For these companies, the criteria place more emphasis on the supplementary ratio of CFO to debt. Examples of companies that have working-capital-intensive characteristics can be found in the capital goods, metals and mining downstream, or the retail and restaurants industries. The need for working capital in those industries reduces financial flexibility and, therefore, these supplemental leverage ratios take on more importance in the analysis.
110. For all companies, when FOCF to debt or DCF to debt is negative or indicates materially lower cash flow/leverage assessments, the criteria call for an examination of management's capital spending and cash distribution strategies. For high-growth companies, typically the focus is on FFO to debt instead of FOCF to debt because the latter ratio can vary greatly depending on the growth investment the company is undergoing. The criteria generally consider a high-growth company one that exhibits real revenue growth in excess of 8% per year. Real revenue growth excludes price

or foreign exchange related growth, under these criteria. In cases where FOCF or DCF is low, there is a greater emphasis on monitoring the sustainability of margins and return on capital and the overall financing mix to assess the likely trend of future debt ratios. In addition, debt service ratio analysis will be important in such situations. For companies with more moderate growth, the focus is typically on FOCF to debt unless the capital spending is short term or is not funded with debt.

111. For companies that have ongoing and well entrenched banking relationships we can reflect these relationships in our cash flow/leverage analysis through the use of the interest coverage ratios as supplemental ratios. These companies generally have historical links and a strong ongoing relationship with their main banks, as well as shareholdings by the main banks, and management influence and interaction between the main banks and the company. Based on their bank relationships, these companies often have lower interest servicing costs than peers, even if the macro economy worsens. In such cases, we generally use the interest coverage ratios as supplemental ratios. This type of banking relationship occurs in Japan, for example, where companies that have the type of bank relationship described in this paragraph tend to have a high socioeconomic influence within their country by way of their revenue size, total debt quantum, number of employees, and the relative importance of the industry.

c) Time horizon and ratio calculation

112. A company's credit ratios may vary, often materially, over time due to economic, competitive, technological, or investment cycles, the life stage of the company, and corporate or strategic actions. Thus, we evaluate credit ratios on a time series basis with a clear forward-looking bias. The length of the time series is dependent on the relative credit risk of the company and other qualitative factors and the weighting of the time series varies according to transformational events. A transformational event is any event that could cause a material change in a company's financial profile, whether caused by changes to the company's capital base, capital structure, earnings, cash flow profile, or financial policies. Transformational events can include mergers, acquisitions, divestitures, management changes, structural changes to the industry or competitive environment, product development and capital programs, and/or business disruptions, including those that arise from the materialization of substantial environmental or social risks. This section provides guidance on the timeframe and weightings the criteria apply to calculate the indicative ratios.
113. The criteria generally consider the company's credit ratios for the previous one to two years, current-year forecast, and the two subsequent forecasted financial years. There may be situations where longer--or even shorter--historical results or forecasts are appropriate, depending on such factors as availability of financials, transformational events, or relevance. For example, a utility company with a long-term capital spending program may lend itself to a longer-term forecast, whereas for a company experiencing a near-term liquidity squeeze even a two-year forecast will have limited value. Alternatively, for most commodities-based companies we emphasize credit ratios based on our forward-looking view of market conditions, which may differ materially from the historical period.
114. Historical patterns in cash flow ratios are informative, particularly in understanding past volatility, capital spending, growth, accounting policies, financial policies, and business trends. Our analysis starts with a review of these historical patterns in order to assess future expected credit quality. Historical patterns can also provide an indication of potential future volatility in ratios, including that which results from seasonality or cyclicalities. A history of volatility could result in a more conservative assessment of future cash flow generation if we believe cash flow will continue to be volatile.

115. The forecast ratios are based on an expected base-case scenario developed by S&P Global Ratings, incorporating current and near-term economic conditions, industry assumptions, and financial policies. The prospective cyclical and longer-term volatility associated with the industry in which the issuer operates is addressed in the industry risk criteria (see section B) and the longer-term directional influence or event risk of financial policies is addressed in our financial policy criteria (see section H).
116. The criteria generally place greater emphasis on forecasted years than historical years in the time series of credit ratios when calculating the indicative credit ratio. For companies where we have five years of ratios as described in section E.3, generally we calculate the indicative ratio by weighting the previous two years, the current year, and the forecasted two years as 10%, 15%, 25%, 25%, and 25%, respectively.
117. This weighting changes, however, to place even greater emphasis on the current and forecast years when:
- The issuer meets the characteristics described in paragraph 113, and either shorter- or longer-term forecasts are applicable. The weights applied will generally be quite forward weighted, particularly if a company is undergoing a transformational event and there is moderate or better cash flow certainty.
 - The issuer is forecast to generate negative cash flow available for debt repayment, which we believe could lead to deteriorating credit metrics. Forecast negative cash flows could be generated from operating activities as well as capital expenditures, share buybacks, dividends, or acquisitions, as we forecast these uses of cash based on the company's track record, market conditions, or financial policy. The weights applied will generally be 30%, 40%, and 30% for the current and two subsequent years, respectively.
 - The issuer is in an industry that is prospectively volatile or that has a high degree of cash flow uncertainty. Industries that are prospectively volatile are industries whose competitive risk and growth assessments are either high risk (5) or very high risk (6) or whose overall industry risk assessments are either high risk (5) or very high risk (6). The weights applied will generally be 50% for the current year and 50% for the first subsequent forecast year.
 - An issuer experienced a significant business disruption due to exceptional events that are temporary and are not assumed to be repeated. These circumstances may stem, for example, from the materialization of environmental or social credit factors (e.g. an epidemic or pandemic health event, or man-made or natural environmental disaster). In such cases, we may take the view that historical financial performance is not indicative of the issuer's current and future earnings trends and put more weight on future year ratios.
118. When the indicative ratio(s) is borderline (i.e., less than 10% different from the threshold in relative terms) between two assessment thresholds (as described in section E.3 and tables 17, 18, and 19) and the forecast points to a switch in the ratio between categories during the rating timeframe, we will weigh the forecast even more heavily in order to prospectively capture the trend.
119. For companies undergoing a transformational event, the weighting of the time series could vary significantly.
120. For companies undergoing a transformational event and with significant or weaker cash flow/leverage assessments, we place greater weight on near-term risk factors. That's because overemphasis on longer-term (inherently less predictable) issues could lead to some distortion when assessing the risk level of a speculative-grade company. We generally analyze a company using the arithmetic mean of the credit ratios expected according to our forecasts for the current

year (or pro forma current year) and the subsequent financial year. A common example of this is when a private equity firm acquires a company using additional debt leverage, which makes historical financial ratios meaningless. In this scenario, we weight or focus the majority of our analysis on the next one or two years of projected credit measures.

3. Determining the cash flow/leverage assessment

a) Identifying the benchmark table

121. Tables 17, 18, and 19 provide benchmark ranges for various cash flow ratios we associate with different cash flow/leverage assessments for standard volatility, medial volatility, and low volatility industries. The tables of benchmark ratios differ for a given ratio and cash flow/leverage assessment along two dimensions: the starting point for the ratio range and the width of the ratio range.
122. If an industry exhibits low volatility, the threshold levels for the applicable ratios to achieve a given cash flow/leverage assessment are less stringent than those in the medial or standard volatility tables, although the range of the ratios is narrower. Conversely, if an industry exhibits medial or standard levels of volatility, the threshold for the applicable ratios to achieve a given cash flow/leverage assessment are elevated, albeit with a wider range of values.
123. The relevant benchmark table for a given company is based on our Corporate Industry and Country Risk Assessment, or the CICRA (see section A, table 1), as described in the bullet points below, unless otherwise indicated in a sector's KCF criteria or in "Guidance: Corporate Methodology."
- The low volatility table (table 19) will generally apply when a company's CICRA is '1' but can infrequently also apply to a company with a CICRA of '2' if the company exhibits or is expected to exhibit low levels of volatility.
 - The medial volatility table (table 18) will generally apply for a company with a CICRA of '2' but can infrequently also apply to a company with a CICRA of '1' if the company exhibits or is expected to exhibit medial levels of volatility.
 - The standard volatility table (table 17) serves as the relevant benchmark table for all CICRA scores other than '1', but we will always use it for companies with a CICRA of '1' or '2' whose competitive position is assessed as '5' or '6'.

Table 17

Cash Flow/Leverage Analysis Ratios--Standard Volatility

	--Core ratios--		--Supplementary coverage ratios--		--Supplementary payback ratios--		
	FFO/debt (%)	Debt/EBITDA (x)	FFO/cash interest(x)	EBITDA/interest (x)	CFO/debt (%)	FOCF/debt (%)	DCF/debt (%)
Minimal	60+	Less than 1.5	More than 13	More than 15	More than 50	40+	25+
Modest	45-60	1.5-2	9-13	10-15	35-50	25-40	15-25
Intermediate	30-45	2-3	6-9	6-10	25-35	15-25	10-15
Significant	20-30	3-4	4-6	3-6	15-25	10-15	5-10
Aggressive	12-20	4-5	2-4	2-3	10-15	5-10	2-5

Table 17

Cash Flow/Leverage Analysis Ratios--Standard Volatility (cont.)

	--Core ratios--		--Supplementary coverage ratios--		--Supplementary payback ratios--		
	FFO/debt (%)	Debt/EBITDA (x)	FFO/cash interest(x)	EBITDA/interest (x)	CFO/debt (%)	FOCF/debt (%)	DCF/debt (%)
Highly leveraged	Less than 12	Greater than 5	Less than 2	Less than 2	Less than 10	Less than 5	Less than 2

Table 18

Cash Flow/Leverage Analysis Ratios--Medial Volatility

	--Core ratios--		--Supplementary coverage ratios--		--Supplementary payback ratios--		
	FFO/debt (%)	Debt/EBITDA (x)	FFO/cash interest (x)	EBITDA/interest (x)	CFO/debt (%)	FOCF/debt (%)	DCF/debt (%)
Minimal	50+	less than 1.75	10.5+	14+	40+	30+	18+
Modest	35-50	1.75-2.5	7.5-10.5	9-14	27.5-40	17.5-30	11-18
Intermediate	23-35	2.5-3.5	5-7.5	5-9	18.5-27.5	9.5-17.5	6.5-11
Significant	13-23	3.5-4.5	3-5	2.75-5	10.5-18.5	5-9.5	2.5-6.5
Aggressive	9-13	4.5-5.5	1.75-3	1.75-2.75	7-10.5	0-5	(11)-2.5
Highly leveraged	Less than 9	Greater than 5.5	Less than 1.75	Less than 1.75	Less than 7	Less than 0	Less than (11)

Table 19

Cash Flow/Leverage Analysis Ratios--Low Volatility

	--Core ratios--		--Supplementary coverage ratios--		--Supplementary payback ratios--		
	FFO/debt (%)	Debt/EBITDA (x)	FFO/cash interest (x)	EBITDA/interest (x)	CFO/debt (%)	FOCF/debt (%)	DCF/debt (%)
Minimal	35+	Less than 2	More than 8	More than 13	More than 30	20+	11+
Modest	23-35	2-3	5-8	7-13	20-30	10-20	7-11
Intermediate	13-23	3-4	3-5	4-7	12-20	4-10	3-7
Significant	9-13	4-5	2-3	2.5-4	8-12	0-4	0-3
Aggressive	6-9	5-6	1.5-2	1.5-2.5	5-8	(10)-0	(20)-0
Highly leveraged	Less than 6	Greater than 6	Less than 1.5	Less than 1.5	Less than 5	Less than (10)	Less than (20)

b) Aggregating the credit ratio assessments

¹²⁴. To determine the final cash flow/leverage assessment, we make these calculations:
1) First, calculate a time series of standard core and supplemental credit ratios, select the relevant benchmark table, and determine the appropriate time weighting of the credit ratios.

- Calculate the two standard core credit ratios and the five standard supplemental credit ratios

over a five-year time horizon.

- Consult the relevant industry KCF article (if applicable) or "Guidance: Corporate Methodology," which may identify additional supplemental ratio(s). The relevant benchmark table for a given company is based on our assessment of the company's associated industry and country risk volatility, or the CICRA.
- Calculate the appropriate weighted average cash flow/leverage ratios. If the company is undergoing a transformational event, then the core and supplemental ratios will typically be calculated based on S&P Global Ratings' projections for the current and next one or two financial years.

2) Second, we use the core ratios to determine the preliminary cash flow assessment.

- Compare the core ratios (FFO to debt and debt to EBITDA) to the ratio ranges in the relevant benchmark table.
- If the core ratios result in different cash flow/leverage assessments, we will select the relevant core ratio based on which provides the best indicator of a company's future leverage.

3) Third, we review the supplemental ratio(s).

- Determine the importance of standard or KCF supplemental ratios based on company-specific characteristics, namely, leverage, capital intensity, working capital intensity, growth rate, or industry.

4) Fourth, we calculate the adjusted cash flow/leverage assessment.

- If the cash flow/leverage assessment(s) indicated by the important supplemental ratio(s) differs from the preliminary cash flow/leverage assessment, we might adjust the preliminary cash flow/leverage assessment by one category in the direction of the cash flow/leverage assessment indicated by the supplemental ratio(s) to derive the adjusted cash flow/leverage assessment. We will make this adjustment if, in our view, the supplemental ratio provides the best indicator of a company's future leverage.
- If there is more than one important supplemental ratio and they result in different directional deviations from the preliminary cash flow/leverage assessment, we will select one as the relevant supplemental ratio based on which, in our opinion, provides the best indicator of a company's future leverage. We will then make the adjustment outlined above if the selected supplemental ratio differs from the preliminary cash flow/leverage assessment and the selected supplemental ratio provides the best overall indicator of a company's future leverage.

5) Lastly, we determine the final cash flow/leverage assessment based on the volatility adjustment.

- We classify companies as stable for these cash flow criteria if cash flow/leverage ratios are expected to worsen by up to one category during periods of stress based on their business risk profile. The final cash flow/leverage assessment for these companies will not be modified from the adjusted cash flow/leverage assessment.
- We classify companies as volatile for these cash flow criteria if cash flow/leverage ratios are expected to move one or two categories worse during periods of stress based on their business risk profiles. Typically, this is equivalent to EBITDA declining about 30% from its current level. The final cash flow/leverage assessment for these companies will be modified to one category weaker than the adjusted cash flow/leverage assessment; the adjustment will be eliminated if cash flow/leverage ratios, as evaluated, include a moderate to high level of stress already.
- We classify companies as highly volatile for these cash flow criteria if cash flow/leverage ratios are expected to move two or three categories worse during periods of stress, based on their

business risk profiles. Typically, this is equivalent to EBITDA declining about 50% from its current level. The final cash flow/leverage assessment for these companies will be modified to two categories weaker than the adjusted cash flow/leverage assessment; the adjustment will be eliminated or reduced to one category if cash flow/leverage ratios, as evaluated, include a moderate to high level of stress already.

125. The volatility adjustment is the mechanism by which we factor a "cushion" of medium-term variance to current financial performance not otherwise captured in either the near-term base-case forecast or the long-term business risk assessment. We make this adjustment based on the following:

- The expectation of any potential cash flow/leverage ratio movement is both prospective and dependent on the current business or economic conditions.
- Stress scenarios include, but are not limited to, a recessionary economic environment, technology or competitive shifts, loss or renegotiation of major contracts or customers, the materialization of ESG credit risks, and key product or input price movements, as typically defined in the company's industry risk profile and competitive position assessment.
- The volatility adjustment is not static and is company specific. At the bottom of an economic cycle or during periods of stressed business conditions, already reflected in the general industry risk or specific competitive risk profile, the prospect of weakening ratios is far less than at the peak of an economic cycle or business conditions.
- The expectation of prospective ratio changes may be formed by observed historical performance over an economic, business, or product cycle by the company or by peers.
- The assessment of which classification to use when evaluating the prospective number of scoring category moves will be guided by how close the current ratios are to the transition point (i.e. "buffer" in the current scoring category) and the corresponding amount of EBITDA movement at each scoring transition.

F. Diversification/Portfolio Effect

126. Under the criteria, diversification/portfolio effect applies to companies that we regard as conglomerates. They are companies that have multiple core business lines that may be operated as separate legal entities. For the purpose of these criteria, a conglomerate would have at least three business lines, each contributing a material source of earnings and cash flow.

127. The criteria aim to measure how diversification or the portfolio effect could improve the anchor of a company with multiple business lines. This approach helps us determine how the credit strength of a corporate entity with a given mix of business lines could improve based on its diversity. The competitive position factor assesses the benefits of diversity within individual lines of business. This factor also assesses how poorly performing businesses within a conglomerate affect the organization's overall business risk profile.

128. Diversification/portfolio effect could modify the anchor depending on how meaningful we think the diversification is, and on the degree of correlation we find in each business line's sensitivity to economic cycles. This assessment will have either a positive or neutral impact on the anchor. We capture any potential factor that weakens a company's diversification, including poor management, in our management and governance assessment.

129. We define a conglomerate as a diversified company that is involved in several industry sectors. Usually the smallest of at least three distinct business segments/lines would contribute at least

10% of either EBITDA or FOCF and the largest would contribute no more than 50% of EBITDA or FOCF, with the long-term aim of increasing shareholder value by generating cash flow. Industrial conglomerates usually hold a controlling stake in their core businesses, have highly identifiable holdings, are deeply involved in the strategy and management of their operating companies, generally do not frequently roll over or reshuffle their holdings by buying and selling companies, and therefore have high long-term exposure to the operating risks of their subsidiaries.

130. In rating a conglomerate, we first assess management's commitment to maintain the diversified portfolio over a longer-term horizon. These criteria apply only if the company falls within our definition of a conglomerate.

1. Assessing diversification/portfolio effect

131. A conglomerate's diversification/portfolio effect is assessed as 1, significant diversification; 2, moderate diversification; or 3, neutral. An assessment of moderate diversification or significant diversification potentially raises the issuer's anchor. To achieve an assessment of significant diversification, an issuer should have uncorrelated diversified businesses whose breadth is among the most comprehensive of all conglomerates'. This assessment indicates that we expect the conglomerate's earnings volatility to be much lower through an economic cycle than an undiversified company's. To achieve an assessment of moderate diversification, an issuer typically has a range of uncorrelated diversified businesses that provide meaningful benefits of diversification with the expectation of lower earnings volatility through an economic cycle than an undiversified company's.
132. We expect that a conglomerate will also benefit from diversification if its core assets consistently produce positive cash flows over our rating horizon. This supports our assertion that the company diversifies to take advantage of allocating capital among its business lines. To this end, our analysis focuses on a conglomerate's track record of successfully deploying positive discretionary cash flow into new business lines or expanding capital-hungry business lines. We assess companies that we do not expect to achieve these benefits as neutral.

2. Components of correlation and how it is incorporated into our analysis

133. We determine the assessment for this factor based on the number of business lines in separate industries (as described in table 27) and the degree of correlation between these business lines as described in table 20. There is no rating uplift for an issuer with a small number of business lines that are highly correlated. By contrast, a larger number of business lines that are not closely correlated provide the maximum rating uplift.

Table 20

Assessing Diversification/Portfolio Effect

Degree of correlation of business lines	--Number of business lines--		
	3	4	5 or more
High	Neutral	Neutral	Neutral
Medium	Neutral	Moderately diversified	Moderately diversified
Low	Moderately diversified	Significantly diversified	Significantly diversified

134. The degree of correlation of business lines is high if the business lines operate within the same industry, as defined by the industry designations in Appendix B, table 27. The degree of correlation of business lines is medium if the business lines operate within different industries, but operate

within the same geographic region (for further guidance on defining geographic regions, see Appendix A, table 26). An issuer has a low degree of correlation across its business lines if these business lines are both a) in different industries and b) either operate in different regions or operate in multiple regions.

135. If we believe that a conglomerate's various industry exposures fail to provide a partial hedge against the consolidated entity's volatility because they are highly correlated through an economic cycle, then we assess the diversification/portfolio effect as neutral.

G. Capital Structure

136. S&P Global Ratings uses its capital structure criteria to assess risks in a company's capital structure that may not show up in our standard analysis of cash flow/leverage. These risks may exist as a result of maturity date or currency mismatches between a company's sources of financing and its assets or cash flows. These can be compounded by outside risks, such as volatile interest rates or currency exchange rates.

1. Assessing capital structure

137. Capital structure is a modifier category, which adjusts the initial anchor for a company after any modification due to diversification/portfolio effect. We assess a number of subfactors to determine the capital structure assessment, which can then raise or lower the initial anchor by one or more notches--or have no effect in some cases. We assess capital structure as 1, very positive; 2, positive; 3, neutral; 4, negative; or 5, very negative. In the large majority of cases, we believe that a firm's capital structure will be assessed as neutral. To assess a company's capital structure, we analyze four subfactors:
- Currency risk associated with debt,
 - Debt maturity profile (or schedule),
 - Interest rate risk associated with debt, and
 - Investments.
138. Any of these subfactors can influence a firm's capital structure assessment, although some carry greater weight than others, based on a tiered approach:
- Tier one risk subfactors: Currency risk of debt and debt maturity profile, and
 - Tier two risk subfactor: Interest rate risk of debt.
139. The initial capital structure assessment is based on the first three subfactors (see table 21). We may then adjust the preliminary assessment based on our assessment of the fourth subfactor, investments.

Table 21

Preliminary Capital Structure Assessment

Preliminary capital structure assessment	Subfactor assessments
Neutral	No tier one subfactor is negative.
Negative	One tier one subfactor is negative, and the tier two subfactor is neutral.

Table 21

Preliminary Capital Structure Assessment (cont.)

Preliminary capital structure assessment	Subfactor assessments
Very negative	Both tier one subfactors are negative, or one tier one subfactor is negative and the tier two subfactor is negative.

140. Tier one subfactors carry the greatest risks, in our view, and, thus, could have a significant impact on the capital structure assessment. This is because, in our opinion, these factors have a greater likelihood of affecting credit metrics and potentially causing liquidity and refinancing risk. The tier two subfactor is important in and of itself, but typically less so than the tier one subfactors. In our view, in the majority of cases, the tier two subfactor in isolation has a lower likelihood of leading to liquidity and default risk than do tier one subfactors.

141. The fourth subfactor, investments, as defined in paragraph 153, quantifies the impact of a company's investments on its overall financial risk profile. Although not directly related to a firm's capital structure decisions, certain investments could provide a degree of asset protection and potential financial flexibility if they are monetized. Thus, the fourth subfactor could modify the preliminary capital structure assessment (see table 22). If the subfactor is assessed as neutral, then the preliminary capital structure assessment will stand. If investments is assessed as positive or very positive, we adjust the preliminary capital structure assessment upward (as per table 22) to arrive at the final assessment.

Table 22

Final Capital Structure Assessment

Preliminary capital structure assessment	--Investments subfactor assessment--		
	Neutral	Positive	Very positive
Neutral	Neutral	Positive	Very positive
Negative	Negative	Neutral	Positive
Very negative	Very negative	Negative	Negative

2. Capital structure analysis: Assessing the subfactors

a) Subfactor 1: Currency risk of debt

142. Currency risk arises when a company borrows without hedging in a currency other than the currency in which it generates revenues. Such an unhedged position makes the company potentially vulnerable to fluctuations in the exchange rate between the two currencies, in the absence of mitigating factors. We determine the materiality of any mismatch by identifying situations where adverse exchange-rate movements could weaken cash flow and/or leverage ratios. We do not include currency mismatches under the following scenarios:

- The country where a company generates its cash flows has its currency pegged to the currency in which the company has borrowed, or vice versa (or the currency of cash flows has a strong track record and government policy of stability with the currency of borrowings), examples being the Hong Kong dollar which is pegged to the U.S. dollar, and the Chinese renminbi which is managed in a narrow band to the U.S. dollar (and China's foreign currency reserves are

mainly in U.S. dollars). Moreover, we expect such a scenario to continue for the foreseeable future;

- A company has the proven ability, through regulation or contract, to pass through changes in debt servicing costs to its customers; or
- A company has a natural hedge, such as where it may sell its product in a foreign currency and has matched its debt in that same currency.

143. We also recognize that even if an entity generates insufficient same-currency cash flow to meet foreign currency-denominated debt obligations, it could have substantial other currency cash flows it can convert to meet these obligations. Therefore, the relative amount of foreign denominated debt as a proportion of total debt is an important factor in our analysis. If foreign denominated debt, excluding fully hedged debt principal, is 15% or less of total debt, we assess the company as neutral on currency risk of debt. If foreign-denominated debt, excluding fully hedged debt principal, is greater than 15% of total debt, and debt to EBITDA is greater than 3.0x, we evaluate currency risks through further analysis.

144. If an entity's foreign-denominated debt in a particular currency represents more than 15% of total debt, and if its debt to EBITDA ratio is greater than 3.0x, we identify whether a currency-specific interest coverage ratio indicates potential currency risk. The coverage ratio divides forecasted operating cash flow in each currency by interest payments over the coming 12 months for that same currency. It is often easier to ascertain the geographic breakdown of EBITDA as opposed to operating cash flow. So in situations where we don't have sufficient cash flow information, we may calculate an EBITDA to interest expense coverage ratio in the relevant currencies. If neither cash flow nor EBITDA information is disclosed, we estimate the relevant exposures based on available information.

145. In such an instance, our assessment of this subfactor is negative if we believe any appropriate interest coverage ratio will fall below 1.2x over the next 12 months.

b) Subfactor 2: Debt maturity profile

146. A firm's debt maturity profile shows when its debt needs to be repaid, or refinanced if possible, and helps determine the firm's refinancing risk. Lengthier and more evenly spread out debt maturity schedules reduce refinancing risk, compared with front-ended and compressed ones, since the former give an entity more time to manage business- or financial market-related setbacks.

147. In evaluating debt maturity profiles, we measure the weighted average maturity (WAM) of bank debt and debt securities (including hybrid debt) within a capital structure, and make simplifying assumptions that debt maturing beyond year five matures in year six. $WAM = (Maturity1/Total\ Debt) * tenor1 + (Maturity2/Total\ Debt) * tenor2 + \dots (Thereafter/Total\ Debt) * tenor6$

148. In evaluating refinancing risk, we consider risks in addition to those captured under the 12-month to 24-month time-horizons factored in our liquidity criteria (see "Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers"). While we recognize that investment-grade companies may have more certain future business prospects and greater access to capital than speculative-grade companies, all else being equal, we view a company with a shorter maturity schedule as having greater refinancing risk compared to a company with a longer one. In all cases, we assess a company's debt maturity profile in conjunction with its liquidity and potential funding availability. Thus, a short-dated maturity schedule alone is not a negative if we believe the company can maintain enough liquidity to pay off debt that comes due in the near term.

149. Our assessment of this subfactor is negative if the WAM is two years or less, and the amount of

these near-term maturities is material in relation to the issuer's liquidity so that under our base-case forecast, we believe the company's liquidity assessment will become less than adequate or weak over the next two years due to these maturities. In certain cases, we may assess a debt maturity profile as negative regardless of whether or not the company passes the aforementioned test. We expect such instances to be rare, and will include scenarios where we believed a concentration of debt maturities within a five-year time horizon poses meaningful refinancing risk, either due to the size of the maturities in relation to the company's liquidity sources, the company's leverage profile, its operating trends, lender relationships, and/or credit market standings.

c) Subfactor 3: Interest rate risk of debt

150. The interest rate risk of debt subfactor analyzes the company's mix of fixed-rate and floating-rate debt. Generally, a higher proportion of fixed-rate debt leads to greater predictability and stability of interest expense and therefore cash flows. The exception would be companies whose operating cash flows are to some degree correlated with interest rate movements--for example, a regulated utility whose revenues are indexed to inflation--given the typical correlation between nominal interest rates and inflation.
151. The mix of fixed versus floating-rate debt is usually not a significant risk factor for companies with intermediate or better financial profiles, strong profitability, and high interest coverage. In addition, the interest rate environment at a given point in time will play a role in determining the impact of interest rate movements. Our assessment of this subcategory will be negative if a 25% upward shift (e.g., from 2.0% to 2.5%) or a 100 basis-point upward shift (e.g., 2% to 3%) in the base interest rate of the floating rate debt will result in a breach of interest coverage covenants or interest coverage rating thresholds identified in the cash flow/leverage criteria (see section E.3).
152. Many loan agreements for speculative-grade companies contain a clause requiring a percentage of floating-rate debt to be hedged for a period of two to three years to mitigate this risk. However, in many cases the loan matures after the hedge expires, creating a mismatched hedge. We consider only loans with hedges that match the life of the loan to be--effectively--fixed-rate debt.

d) Subfactor 4: Investments

153. For the purposes of the criteria, investments refer to investments in unconsolidated equity affiliates, other assets where the realizable value isn't currently reflected in the cash flows generated from those assets (e.g. underutilized real-estate property), we do not expect any additional investment or support to be provided to the affiliate, and the investment is not included within S&P Global Ratings' consolidation scope and so is not incorporated in the company's business and financial risk profile analysis. If equity affiliate companies are consolidated, then the financial benefits and costs of these investments will be captured in our cash flow and leverage analysis. Similarly, where the company's ownership stake does not qualify for consolidation under accounting rules, we may choose to consolidate on a pro rata basis if we believe that the equity affiliates' operating and financing strategy is influenced by the rated entity. If equity investments are strategic and provide the company with a competitive advantage, or benefit a company's scale, scope, and diversity, these factors will be captured in our competitive position criteria and will not be used to assess the subfactor investments as positive. Within the capital structure criteria, we aim to assess nonstrategic financial investments that could provide a degree of asset protection and financial flexibility in the event they are monetized. These investments must be noncore and separable, meaning that a potential divestiture, in our view, has no impact on the company's existing operations.

154. In many instances, the cash flows generated by an equity affiliate, or the proportional share of the associate company's net income, might not accurately reflect the asset's value. This could occur if the equity affiliate is in high growth mode and is currently generating minimal cash flow or net losses. This could also be true of a physical asset, such as real estate. From a valuation standpoint, we recognize the subjective nature of this analysis and the potential for information gaps. As a result, in the absence of a market valuation or a market valuation of comparable companies in the case of minority interests in private entities, we will not ascribe value to these assets.
155. We assess this subfactor as positive or very positive if three key characteristics are met. First, an estimated value can be ascribed to these investments based on the presence of an existing market value for the firm or comparable firms in the same industry. Second, there is strong evidence that the investment can be monetized over an intermediate timeframe--in the case of an equity investment, our opinion of the marketability of the investment would be enhanced by the presence of an existing market value for the firm or comparable firms, as well as our view of market liquidity. Third, monetization of the investment, assuming proceeds would be used to repay debt, would be material enough to positively move existing cash flow and leverage ratios by at least one category and our view on the company's financial policy, specifically related to financial discipline, supports the assessment that the potential proceeds would be used to pay down debt. This subfactor is assessed as positive if debt repayment from the investment sale has the potential to improve cash flow and leverage ratios by one category. We assess investments as very positive if proceeds upon sale of the investment have the potential to improve cash flow and leverage ratios by two or more categories. If the three characteristics are not met, this subfactor will be assessed as neutral and the preliminary capital structure assessment will stand.
156. We will not assess the investments subfactor as positive or very positive when the anchor is 'b+' or lower unless the three conditions described in paragraph 155 are met, and:
- For issuers with less than adequate or weak liquidity, the company has provided a credible near-term plan to sell the investment.
 - For issuers with adequate or better liquidity, we believe that the company, if needed, could sell the investment in a relatively short timeframe.

H. Financial Policy

157. Financial policy refines the view of a company's risks beyond the conclusions arising from the standard assumptions in the cash flow/leverage assessment (see section E). Those assumptions do not always reflect or entirely capture the short-to-medium term event risks or the longer-term risks stemming from a company's financial policy. To the extent movements in one of these factors cannot be confidently predicted within our forward-looking evaluation, we capture that risk within our evaluation of financial policy. The cash flow/leverage assessment will typically factor in operating and cash flows metrics we observed during the past two years and the trends we expect to see for the coming two years based on operating assumptions and predictable financial policy elements, such as ordinary dividend payments or recurring acquisition spending. However, over that period and, generally, over a longer time horizon, the firm's financial policies can change its financial risk profile based on management's or, if applicable, the company's controlling shareholder's (see Appendix E, paragraphs 254-257) appetite for incremental risk or, conversely, plans to reduce leverage. We assess financial policy as 1) positive, 2) neutral, 3) negative, or as being owned by a financial sponsor. We further identify financial sponsor-owned companies as "FS-4", "FS-5", "FS-6", or "FS-6 (minus)" (see section H.2).

1. Assessing financial policy

158. First, we determine if a company is owned by a financial sponsor. Given the intrinsic characteristics and aggressive nature of financial sponsor's strategies (i.e. short- to intermediate-term holding periods and the use of debt or debt-like instruments to maximize shareholder returns), we assign a financial risk profile assessment to a firm controlled by a financial sponsor that reflects the likely impact on leverage due to these strategies and we do not separately analyze management's financial discipline or financial policy framework.
159. If a company is not controlled by a financial sponsor, we evaluate management's financial discipline and financial policy framework. Management's financial discipline measures its tolerance for incremental financial risk or, conversely, its willingness to maintain the same degree of financial risk or to lower it compared with recent cash flow/leverage metrics and our projected ratios for the next two years. The company's financial policy framework assesses the comprehensiveness, transparency, and sustainability of the entity's financial policies. We do not assess these factors for financial sponsor controlled firms.
160. The financial discipline assessments can have a positive or negative influence on an enterprise's overall financial policy assessment, or can have no net effect. Conversely, the financial policy framework assessment cannot positively influence the overall financial policy assessment. It can constrain the overall financial policy assessment to no greater than neutral.
161. The separate assessments of a company's financial policy framework and financial discipline determine the financial policy adjustment.
162. We assess management's financial discipline as 1, positive; 2, neutral; or 3, negative. We determine the assessment by evaluating the predictability of an entity's expansion plans and shareholder return strategies. We take into account, generally, management's tolerance for material and unexpected negative changes in credit ratios or, instead, its plans to rapidly decrease leverage and keep credit ratios within stated boundaries.
163. A company's financial policy framework assessment is: 1, supportive or 2, non-supportive. We make the determination by assessing the comprehensiveness of a company's financial policy framework and whether financial targets are clearly communicated to a large number of stakeholders, and are well defined, achievable, and sustainable.

Table 23

Financial Policy Assessments

Assessment	What it means	Guidance
Positive	Indicates that we expect management's financial policy decisions to have a positive impact on credit ratios over the time horizon, beyond what can be reasonably built in our forecasts on the basis of normalized operating and cash flow assumptions. An example would be when a credible management team commits to dispose of assets or raise equity over the short to medium term in order to reduce leverage. A company with a 1 financial risk profile will not be assigned a positive assessment.	If financial discipline is positive, and the financial policy framework is supportive
Neutral	Indicates that, in our opinion, future credit ratios won't differ materially over the time horizon beyond what we have projected, based on our assessment of management's financial policy, recent track record, and operating forecasts for the company. A neutral financial policy assessment effectively reflects a low probability of "event risk," in our view.	If financial discipline is positive, and the financial policy framework is non-supportive. Or when financial discipline is neutral, regardless of the financial policy framework assessment.

Table 23

Financial Policy Assessments (cont.)

Assessment	What it means	Guidance
Negative	Indicates our view of a lower degree of predictability in credit ratios, beyond what can be reasonably built in our forecasts, as a result of management's financial discipline (or lack of it). It points to high event risk that management's financial policy decisions may depress credit metrics over the time horizon, compared with what we have already built in our forecasts based on normalized operating and cash flow assumptions.	If financial discipline is negative, regardless of the financial policy framework assessment
Financial Sponsor*	We define a financial sponsor as an entity that follows an aggressive financial strategy in using debt and debt-like instruments to maximize shareholder returns. Typically, these sponsors dispose of assets within a short to intermediate time frame. Accordingly, the financial risk profile we assign to companies that are controlled by financial sponsors ordinarily reflects our presumption of some deterioration in credit quality in the medium term. Financial sponsors include private equity firms, but not infrastructure and asset-management funds, which maintain longer investment horizons.	We define financial sponsor-owned companies as nonfinancial corporate entities in which one or more financial sponsors own at least 40% of the entity's common equity, or retain the majority of the voting rights and control through preference shares, and where we consider that the sponsors exercise control of the company either solely or jointly.

*Assessed as FS-4, FS-5, FS-6, or FS-6 (minus).

2. Financial sponsor-controlled companies

- ¹⁶⁴. We define a financial sponsor as an entity that follows an aggressive financial strategy in using debt and debt-like instruments to maximize shareholder returns. Typically, these sponsors dispose of assets within a short-to-intermediate time frame. Financial sponsors include private equity firms, but not infrastructure and asset-management funds, which maintain longer investment horizons.
- ¹⁶⁵. We define financial sponsor-owned companies as nonfinancial corporate entities in which one or more financial sponsors own at least 40% of the entity's common equity, or retain the majority of the voting rights and control through preference shares, and where we consider that the sponsors exercise control of the company either solely or jointly. "Control" refers to the sponsors' ability to dictate an entity's strategy and cash flow. The strategic goals of the sponsors must be aligned for us to consider the sponsors as having joint control.
- ¹⁶⁶. We differentiate between financial sponsors and other types of controlling shareholders and companies that do not have controlling shareholders based on our belief that short-term ownership--such as exists in private equity sponsor-owned companies--generally entails financial policies aimed at achieving rapid returns for shareholders typically through aggressive debt leverage.
- ¹⁶⁷. Financial sponsors often dictate policies regarding risk-taking, financial management, and corporate governance for the companies that they control. There is a common pattern of these investors extracting cash in ways that increase the companies' financial risk by utilizing debt or debt like instruments. Accordingly, the financial risk profile we assign to companies that are controlled by financial sponsors ordinarily reflect our presumption of some deterioration in credit quality or steadily high leverage in the medium term.
- ¹⁶⁸. We assess the influence of financial sponsor ownership as "FS-4", "FS-5", "FS-6", and "FS-6 (minus)" depending on how aggressive we assume the sponsor will be and assign a financial risk profile accordingly (see table 24).

- ¹⁶⁹. Generally, financial sponsor-owned issuers will receive an assessment of "FS-6" or "FS-6 (minus)", leading to a financial risk profile assessment of '6', under the criteria. A "FS-6" assessment indicates that, in our opinion, forecasted credit ratios in the medium term are likely to be consistent with a '6' financial risk profile, based on our assessment of the financial sponsor's financial policy and track record. A "FS-6 (minus)" will likely be applied to companies that we forecast to have near-term credit ratios consistent with a '6' financial risk profile, but we believe the financial sponsor to be very aggressive and that leverage could increase materially even further from our forecasted levels.
- ¹⁷⁰. In a small minority of cases, a financial sponsor-owned entity could receive an assessment of "FS-5". This assessment will apply only when we project that the company's leverage will be consistent with a '5' (aggressive) financial risk profile (see tables 17, 18, and 19), we perceive that the risk of releveraging is low based on the company's financial policy and our view of the owner's financial risk appetite, and liquidity is at least adequate.
- ¹⁷¹. In even rarer cases, we could assess the financial policy of a financial sponsor-owned entity as "FS-4". This assessment will apply only when all of the following conditions are met: other shareholders own a material (generally, at least 20%) stake, we expect the sponsor to relinquish control over the intermediate term, we project that leverage is currently consistent with a '4' (significant) financial risk profile (see tables 17, 18, and 19), the company has said it will maintain leverage at or below this level, and liquidity is at least adequate.

Table 24

Financial Risk Profile Implications For Sponsor-Owned Issuers		
Assessment	What it Means	Guidance
FS-4	Financial risk profile set at '4'	<p>Issuer must meet all of the following conditions:</p> <ul style="list-style-type: none"> • Other shareholders must own a material (no less than 20%) stake; • We anticipate that the sponsor will relinquish control over the medium term; • For issuers subject to Table 17 (standard volatility), debt to EBITDA is less than 4x, and we estimate that it will remain less than 4x. For issuers that are subject to Table 18 (medial volatility), debt to EBITDA is below 4.5x and we forecast it to remain below that level. Or for issuers subject to Table 19 (low volatility), debt to EBITDA is less than 5x and our estimation is it will remain below that level; • The company has indicated a financial policy stipulating a level of leverage consistent with a significant or better financial risk profile (that is, debt to EBITDA of less than 4x when applying standard volatility tables, 4.5x when applying medial volatility tables, or less than 5x when applying low volatility tables) and • We assess liquidity to be at least adequate, with adequate covenant headroom.
FS-5	Financial risk profile set at '5'	<p>Issuer must meet all of the following conditions:</p> <ul style="list-style-type: none"> • For issuers subject to the standard volatility table, debt to EBITDA is less than 5x, and we estimate that it will remain less than 5x. For issuers that are subject to the medial volatility table, debt to EBITDA is below 5.5x and we forecast it to remain below that level. Or for issuers subject to the low volatility table, debt to EBITDA is less than 6x and our estimation is it will remain below that level; • We believe the risk of releveraging beyond 5x (standard volatility issuer), 5.5x (medial volatility issuer), or 6x (low volatility issuer) is low; and • We assess liquidity to be at least adequate, with adequate covenant headroom.
FS-6	Financial risk profile set at '6'	Standard & Poor's debt to EBITDA is greater than 5x (when applying the standard volatility table), greater than 5.5x (when applying the medial volatility table), or greater than 6x (when applying the low volatility table). However, we believe leverage is unlikely to increase meaningfully beyond these levels.
FS-6 (minus)	Financial risk profile set at '6', and anchor reduced by one notch (unless this results in a final rating below 'B-')	In determining the anchor the financial risk profile is a '6', but we believe the track record of the financial sponsor indicates that leverage could increase materially from already high levels.

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3. Companies not controlled by a financial sponsor

172. For companies not controlled by a financial sponsor we evaluate management's financial discipline and financial policy framework to determine the influence on an entity's financial risk profile beyond what is implied by recent credit ratios and our cash flow and leverage forecasts. This influence can be positive, neutral, or negative.
173. We do not distinguish between management and a controlling shareholder that is not a financial sponsor when assessing these subfactors, as the controlling shareholder usually has the final say

on financial policy.

a) Financial discipline

174. The financial discipline assessment is based on management's leverage tolerance and the likelihood of event risk. The criteria evaluate management's potential appetite to incur unforeseen, higher financial risk over a prolonged period and the associated impact on credit measures. We also assess management's capacity and commitment to rapidly decrease debt leverage to levels consistent with its credit ratio targets.
175. This assessment therefore seeks to determine whether unforeseen actions by management to increase, maintain, or reduce financial risk are likely to occur during the next two to three years, with either a negative or positive effect, or none at all, on our baseline forecasts for the period.
176. This assessment is based on the leverage tolerance of a company's management, as reflected in its plans or history of acquisitions, shareholder remuneration, and organic growth strategies (see Appendix E, paragraphs 258 to 263).
177. We assess financial discipline as positive, neutral, or negative, based on its potential impact on our forward-looking assessment of a firm's cash flow/leverage, as detailed in table 25. For example, a neutral assessment for leverage tolerance reflects our expectation that management's financial policy will unlikely lead to significant deviation from current and forecasted credit ratios. A negative assessment acknowledges a significant degree of event risk of increased leverage relative to our base-case forecast, resulting from the company's acquisition policy, its shareholder remuneration policy, or its organic growth strategy. A positive assessment indicates that the company is likely to take actions to reduce leverage, but we cannot confidently incorporate these actions into our baseline forward-looking assessment of cash flow/leverage.
178. A positive assessment indicates that management is committed and has the capacity to reduce debt leverage through the rapid implementation of credit enhancing measures, such as asset disposals, rights issues, or reductions in shareholder returns. In addition, management's track record over the past five years shows that it has taken actions to rapidly reduce unforeseen increases in debt leverage and that there have not been any prolonged periods when credit ratios were weaker than our expectations for the rating. Management, even if new, also has a track record of successful execution. Conversely, a negative assessment indicates management's financial policy allows for significant increase in leverage compared with both current levels and our forward-looking forecast under normal operating/financial conditions or does not have observable time limits or stated boundaries. Management has a track record of allowing for significant and prolonged peaks in leverage and there is no commitment or track record of management using mitigating measures to rapidly return to credit ratios consistent with our expectations.
179. As evidence of management's leverage tolerance, we evaluate its track record and plans regarding acquisitions, shareholder remuneration, and organic growth strategies (see Appendix E, paragraphs 258 to 263). Acquisitions could increase the risk that leverage will be higher than our base-case forecast if we view management's strategy as opportunistic or if its financial policy (if it exists) provides significant headroom for debt-financed acquisitions. Shareholder remuneration could also increase the risk of leverage being higher than our base-case forecast if management's shareholder reward policies are not particularly well defined or have no clear limits, management has a tolerance for shareholder returns exceeding operating cash flow, or has a track record of sustained cash returns despite weakening operating performance or credit ratios. Organic growth strategies can also result in leverage higher than our base-case forecast if these plans have no clear focus or investment philosophy, capital spending is fairly unpredictable, or there is a track

record of overspending or unexpected or rapid shifts in plans for new markets or products.

180. We also take into account management's track record and level of commitment to its stated financial policies, to the extent a company has a stated policy. Historical evidence and any deviations from stated policies are key elements in analyzing a company's leverage tolerance. Where material and unexpected deviation in leverage may occur (for example, on the back of operating weakness or acquisitions), we also assess management's plan to restore credit ratios to levels consistent with previous expectations through rapid and proactive non-organic measures. Management's track record to execute its deleveraging plan, its level of commitment, and the scope and timeframe of debt mitigating measures will be key differentiators in assessing a company's financial policy discipline.

Table 25

Assessing Financial Discipline

Descriptor	What it means	Guidance
Positive	Management is likely to take actions that result in leverage that is lower than our base-case forecast, but can't be confidently included in our base-case assumptions. Event risk is low.	Management is committed and has capacity to reduce debt leverage and increase financial headroom through the rapid implementation of credit enhancing measures, in line with its stated financial policy, if any. This relates primarily to management's careful and moderate policy with regard to acquisitions and shareholder remuneration as well as to its organic growth strategy. The assessments are supported by historical evidence over the past five years of not showing any prolonged weakening in the company's credit ratios, or relative to our base-case credit metrics' assumptions. Management, even if new, has a track record of successful execution.
Neutral	Leverage is not expected to deviate materially from our base-case forecast. Event risk is moderate.	Management's financial discipline with regard to acquisitions, shareholder remuneration, as well as its organic growth strategy does not result in significantly different leverage as defined in its stated financial policy framework.
Negative	Leverage could become materially higher than our base-case forecast. Event risk is high.	Management's financial policy framework does not explicitly rule out a significant increase in leverage compared to our base-case assumptions, possibly reflecting a greater event risk with regard to its M&A and shareholder remuneration policy as well as to its organic growth strategy. These points are supported by historical evidence over the past five years of allowing for significant and prolonged peaks in leverage, which remained unmitigated by credit supporting measures by management.

b) Financial policy framework

181. The company's financial policy framework assesses the comprehensiveness, transparency, and sustainability of the entity's financial policies (see Appendix E, paragraphs 264-268). This will help determine whether there is a satisfactory degree of visibility into the issuer's future financial risk profile. Companies that have developed and sustained a comprehensive set of financial policies are more likely to build long-term, sustainable credit quality than those that do not.
182. We will assess a company's financial policy framework as supportive or non-supportive based on evidence that supports the characteristics listed below. In order for an entity to receive a supportive assessment for financial policy framework, there must be sufficient evidence of management's financial policies to back that assessment.
183. A company assessed as supportive will generally exhibit the following characteristics:
- Management has a comprehensive set of financial policies covering key areas of financial risk, including debt leverage and liability management. Financial targets are well defined and

quantifiable.

- Management's financial policies are clearly articulated in public forums (such as public listing disclosures and investor presentations) or are disclosed to a limited number of key stakeholders such as main creditors or to the credit rating agencies. The company's adherence to these policies is satisfactory.
- Management's articulated financial policies are considered achievable and sustainable. This assessment takes into consideration historical adherence to articulated policies, existing financial risk profile, capacity to sustain capital structure through nonorganic means, demands of key stakeholders, and the stability of financial policy parameters over time.

184. A company receives a non-supportive assessment if it does not meet all the conditions for a supportive assessment. We expect a non-supportive assessment to be uncommon.

I. Liquidity

185. Our assessment of liquidity focuses on monetary flows--the sources and uses of cash--that are the key indicators of a company's liquidity cushion. The analysis assesses the potential for a company to breach covenant tests related to declines in EBITDA, as well as its ability to absorb high-impact, low-probability events (such as those that may arise from the materialization of ESG risks), the nature of the company's bank relationships, its standing in credit markets, and how prudent (or not) we believe its financial risk management to be (see "Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers").

J. Management And Governance

186. The analysis of management and governance addresses how management's strategic competence, organizational effectiveness, risk management, and governance practices shape the issuer's competitiveness in the marketplace, the strength of its financial risk management, and the robustness of its governance. Stronger management of important strategic and financial risks may enhance creditworthiness (see "Methodology: Management And Governance Credit Factors For Corporate Entities").

K. Comparable Ratings Analysis

187. The comparable ratings analysis is our last step in determining a SACP on a company. This analysis can lead us to raise or lower our anchor, after adjusting for the modifiers, on a company by one notch based on our overall assessment of its credit characteristics for all subfactors considered in arriving at the SACP. This involves taking a holistic review of a company's stand-alone credit risk profile, in which we evaluate an issuer's credit characteristics in aggregate. A positive assessment leads to a one-notch upgrade, a negative assessment leads to a one-notch downgrade, and a neutral assessment indicates no change to the anchor.
188. The application of comparable ratings analysis reflects the need to "fine-tune" ratings outcomes, even after the use of each of the other modifiers. A positive or negative assessment is therefore likely to be common rather than exceptional.
189. We consider our assessments of each of the underlying subfactors to be points within a possible range. Consequently, each of these assessments that ultimately generate the SACP can be at the upper or lower end, or at the mid-point, of such a range:

- A company receives a positive assessment if we believe, in aggregate, its relative ranking across the subfactors typically to be at the higher end of the range;
- A company receives a negative assessment if we believe, in aggregate, its relative ranking across the subfactors typically to be at the lower end of the range;
- A company receives a neutral assessment if we believe, in aggregate, its relative ranking across the subfactors typically to be in line with the middle of the range.

190. The most direct application of the comparable ratings analysis is in the following circumstances:

- Business risk assessment. If we expect a company to sustain a position at the higher or lower end of the ranges for the business risk category assessment, the company could receive a positive or negative assessment, respectively.
- Financial risk assessment and financial metrics. If a company's actual and forecasted metrics are just above (or just below) the financial risk profile range, as indicated in its cash flow/leverage assessment, we could assign a positive or negative assessment.

191. We also consider additional factors not already covered, or existing factors not fully captured, in arriving at the SACP. Such factors will generally reflect less frequently observed credit characteristics, may be unique, or may reflect unpredictability or uncertain risk attributes, both positive and negative.

192. This paragraph has been deleted.

APPENDIXES

A. Country Risk

Table 26

Countries And Regions

Region
Western Europe
Southern Europe
Western + Southern Europe
East Europe
Central Europe
Eastern Europe and Central Asia
Middle East
Africa
North America
Central America
Latin America
The Caribbean
Asia-Pacific
Central Asia

Table 26

Countries And Regions (cont.)

East Asia	
Australia NZ	
Country	Region
South Africa	Africa
Egypt	Africa
Nigeria	Africa
Algeria	Africa
Morocco	Africa
Angola	Africa
Tunisia	Africa
Ethiopia	Africa
Ghana	Africa
Kenya	Africa
Tanzania	Africa
Uganda	Africa
Botswana	Africa
Congo, Democratic Republic of	Africa
Gabon	Africa
Senegal	Africa
Mozambique	Africa
Burkina Faso	Africa
Zambia	Africa
Congo, Republic of	Africa
Zimbabwe	Africa
Eritrea	Africa
Indonesia	Asia-Pacific
Taiwan	Asia-Pacific
Thailand	Asia-Pacific
Malaysia	Asia-Pacific
Philippines	Asia-Pacific
Vietnam	Asia-Pacific
Bangladesh	Asia-Pacific
Sri Lanka	Asia-Pacific
Cambodia	Asia-Pacific
Laos	Asia-Pacific
Papua New Guinea	Asia-Pacific
Mongolia	Asia-Pacific

Table 26

Countries And Regions (cont.)

Australia	Australia NZ
New Zealand	Australia NZ
Guatemala	Central America
Costa Rica	Central America
Panama	Central America
Honduras	Central America
India	Central Asia
Pakistan	Central Asia
Kazakhstan	Central Asia
Bhutan	Central Asia
Poland	Central Europe
Czech Republic	Central Europe
Romania	Central Europe
Hungary	Central Europe
Slovakia	Central Europe
Bulgaria	Central Europe
Croatia	Central Europe
Serbia	Central Europe
Lithuania	Central Europe
Latvia	Central Europe
Bosnia and Herzegovina	Central Europe
Estonia	Central Europe
Albania	Central Europe
Macedonia	Central Europe
China	East Asia
Japan	East Asia
South Korea	East Asia
Hong Kong	East Asia
Singapore	East Asia
Macau	East Asia
Greece	Eastern Europe
Slovenia	Eastern Europe
Cyprus	Eastern Europe
Russia	Eastern Europe and Central Asia
Ukraine	Eastern Europe and Central Asia
Belarus	Eastern Europe and Central Asia
Azerbaijan	Eastern Europe and Central Asia

Table 26

Countries And Regions (cont.)

Georgia	Eastern Europe and Central Asia
Brazil	Latin America
Mexico	Latin America
Argentina	Latin America
Colombia	Latin America
Venezuela	Latin America
Peru	Latin America
Chile	Latin America
Ecuador	Latin America
Bolivia	Latin America
Uruguay	Latin America
El Salvador	Latin America
Paraguay	Latin America
Trinidad and Tobago	Latin America
Suriname	Latin America
Belize	Latin America
Turkey	Middle East
Saudi Arabia	Middle East
United Arab Emirates	Middle East
Israel	Middle East
Qatar	Middle East
Kuwait	Middle East
Iraq	Middle East
Oman	Middle East
Lebanon	Middle East
Jordan	Middle East
Bahrain	Middle East
United States	North America
Canada	North America
Italy	Southern Europe
Spain	Southern Europe
Portugal	Southern Europe
Dominican Republic	The Caribbean
Jamaica	The Caribbean
Bahamas	The Caribbean
Barbados	The Caribbean
Curacao	The Caribbean

Table 26

Countries And Regions (cont.)

Cayman Islands	The Caribbean
Grenada	The Caribbean
Turks and Caicos	The Caribbean
Germany	Western Europe
United Kingdom	Western Europe
France	Western Europe
Netherlands	Western Europe
Belgium	Western Europe
Sweden	Western Europe
Switzerland	Western Europe
Austria	Western Europe
Norway	Western Europe
Denmark	Western Europe
Finland	Western Europe
Ireland	Western Europe
Luxembourg	Western Europe
Iceland	Western Europe
Malta	Western Europe

B. Competitive Position

Table 27

List Of Industries, Subsectors, And Standard Competitive Position Group Profiles

Industry	Subsector	Competitive position group profile
Transportation cyclical	Airlines	Capital or asset focus
	Marine	Capital or asset focus
	Trucking	Capital or asset focus
Auto OEM	Automobile and truck manufacturers	Capital or asset focus
Metals and mining downstream	Aluminum	Commodity focus/cost driven
	Steel	Commodity focus/cost driven
Metals and mining upstream	Coal and consumable fuels	Commodity focus/cost driven
	Diversified metals and mining	Commodity focus/cost driven
	Gold	Commodity focus/cost driven
	Precious metals and minerals	Commodity focus/cost driven
Homebuilders and developers	Homebuilding	Capital or asset focus
Oil and gas refining and marketing	Oil and gas refining and marketing	Commodity focus/scale driven

Table 27

List Of Industries, Subsectors, And Standard Competitive Position Group Profiles (cont.)

Industry	Subsector	Competitive position group profile
Forest and paper products	Forest products	Commodity focus/cost driven
	Paper products	Commodity focus/cost driven
Building Materials	Construction materials	Capital or asset focus
Oil and gas integrated, exploration and production	Integrated oil and gas	Commodity focus/scale driven
	Oil and gas exploration and production	Commodity focus/scale driven
Agribusiness and commodity foods	Agricultural products	Commodity focus/scale driven
Real estate investment trusts (REITs)	Diversified REITs	Real-estate specific*
	Health care REITS	Real-estate specific*
	Industrial REITs	Real-estate specific*
	Office REITs	Real-estate specific*
	Residential REITs	Real-estate specific*
	Retail REITs	Real-estate specific*
	Specialized REITs	Not applicable**
	Self-storage REITs	Real-estate specific*
	Net lease REITs	Real-estate specific*
	Real estate operating companies	Real-estate specific*
Leisure and sports	Casinos and gaming	Services and product focus
	Hotels, resorts, and cruise lines	Services and product focus
	Leisure facilities	Services and product focus
Commodity chemicals	Commodity chemicals	Commodity focus/cost driven
	Diversified chemicals	Commodity focus/cost driven
	Fertilizers and agricultural chemicals	Commodity focus/cost driven
Auto suppliers	Auto parts and equipment	Capital or asset focus
	Tires and rubber	Capital or asset focus
	Vehicle-related suppliers	Capital or asset focus
Aerospace and defense	Aerospace and defense	Services and product focus
Technology hardware and semiconductors	Communications equipment	Capital or asset focus
	Computer hardware	Capital or asset focus
	Computer storage and peripherals	Capital or asset focus
	Consumer electronics	Capital or asset focus
	Electronic equipment and instruments	Capital or asset focus
	Electronic components	Capital or asset focus
	Electronic manufacturing services	Capital or asset focus
	Technology distributors	Capital or asset focus

Table 27

List Of Industries, Subsectors, And Standard Competitive Position Group Profiles (cont.)

Industry	Subsector	Competitive position group profile
	Office electronics	Capital or asset focus
	Semiconductor equipment	Capital or asset focus
	Semiconductors	Capital or asset focus
Specialty Chemicals	Industrial gases	Capital or asset focus
	Specialty chemicals	Capital or asset focus
Capital Goods	Electrical components and equipment	Capital or asset focus
	Heavy equipment and machinery	Capital or asset focus
	Industrial componentry and consumables	Capital or asset focus
	Construction equipment rental	Capital or asset focus
	Industrial distributors	Services and product focus
Engineering and construction	Construction and engineering	Services and product focus
Railroads and package express	Railroads	Capital or asset focus
	Package express	Services and product focus
	Logistics	Services and product focus
Business and consumer services	Consumer services	Services and product focus
	Distributors	Services and product focus
	Facilities services	Services and product focus
	General support services	Services and product focus
	Professional services	Services and product focus
Midstream energy	Oil and gas storage and transportation	Commodity focus/scale driven
Technology software and services	Internet software and services	Services and product focus
	IT consulting and other services	Services and product focus
	Data processing and outsourced services	Services and product focus
	Application software	Services and product focus
	Systems software	Services and product focus
	Consumer software	Services and product focus
Consumer durables	Home furnishings	Services and product focus
	Household appliances	Services and product focus
	Housewares and specialties	Services and product focus
	Leisure products	Services and product focus
	Photographic products	Services and product focus
	Small appliances	Services and product focus
Containers and packaging	Metal and glass containers	Capital or asset focus
	Paper packaging	Capital or asset focus

Table 27

List Of Industries, Subsectors, And Standard Competitive Position Group Profiles (cont.)

Industry	Subsector	Competitive position group profile
Media and entertainment	Ad agencies and marketing services companies	Services and product focus
	Ad-supported online content platforms	Services and product focus
	Broadcast networks	Services and product focus
	Cable TV and OTT networks	Services and product focus
	Newspapers/magazines	Services and product focus
	Data publishing	Services and product focus
	E-Commerce (services)	Services and product focus
	Educational publishing	Services and product focus
	Film and TV programming production	Capital or asset focus
	Miscellaneous media and entertainment	Services and product focus
	Motion picture exhibitors	Services and product focus
	Music publishing and recording	Services and product focus
	Outdoor advertising	Services and product focus
	Printing	Commodity focus/scale driven
	Radio stations	Services and product focus
	Local TV stations	Services and product focus
Oil and gas drilling, equipment and services	Onshore contract drilling	Commodity focus/scale driven
	Offshore contract drilling	Capital or Asset Focus
	Oil and gas equipment and services (oilfield services)	Commodity focus/scale driven
Retail and restaurants	Catalog retail	Services and product focus
	Internet retail	Services and product focus
	Department stores	Services and product focus
	General merchandise stores	Services and product focus
	Apparel retail	Services and product focus
	Computer and electronics retail	Services and product focus
	Home improvement retail	Services and product focus
	Specialty stores	Services and product focus
	Automotive retail	Services and product focus
	Home furnishing retail	Services and product focus
Health care services	Health care services	Commodity focus/scale driven
Transportation infrastructure	Airport services	National industries and utilities

Table 27

List Of Industries, Subsectors, And Standard Competitive Position Group Profiles (cont.)

Industry	Subsector	Competitive position group profile
	Highways	National industries and utilities
	Railtracks	National industries and utilities
	Marine ports and services	National industries and utilities
Environmental services	Environmental and facilities services	Services and product focus
Regulated utilities	Electric utilities	National industries and utilities
	Gas utilities	National industries and utilities
	Multi-utilities	National industries and utilities
	Water utilities	National industries and utilities
Unregulated power and gas	Independent power producers and energy traders	Capital or asset focus
	Merchant power	Capital or asset focus
Pharmaceuticals	Branded pharmaceuticals	Services and product focus
	Generic pharmaceuticals	Commodity focus/scale driven
Health care equipment	High-tech health care equipment	Product focus/scale driven
	Low-tech health care equipment	Commodity focus/scale driven
Branded nondurables	Brewers	Services and product focus
	Distillers and vintners	Services and product focus
	Soft drinks	Services and product focus
	Packaged foods and meats	Services and product focus
	Tobacco	Services and product focus
	Household products	Services and product focus
	Apparel, footwear, accessories, and luxury goods	Services and product focus
	Personal products	Services and product focus
Telecommunications and cable	Cable and satellite	Services and product focus
	Alternative carriers	Services and product focus
	Integrated telecommunication services	Services and product focus
	Wireless towers	Capital or asset focus
	Data center operators	Capital or asset focus
	Fiber-optic carriers	Capital or asset focus
	Wireless telecommunication services	Services and product focus

Table 27

List Of Industries, Subsectors, And Standard Competitive Position Group Profiles (cont.)

Industry	Subsector	Competitive position group profile
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*See "Key Credit Factors For The Real Estate Industry." **For specialized REITs, there is no standard CPGP, as the CPGP will vary based on the underlying industry exposure (e.g., a forest and paper products REIT).

1. Analyzing subfactors for competitive advantage

193. Competitive advantage is the first component of our competitive position analysis. Companies that possess a sustainable competitive advantage are able to capitalize on key industry factors or mitigate associated risks more effectively. When a company operates in more than one business, we analyze each segment separately to form an overall view of its competitive advantage. In assessing competitive advantage, we evaluate the following subfactors:

- Strategy;
- Differentiation/uniqueness, product positioning/bundling;
- Brand reputation and marketing;
- Product/service quality;
- Barriers to entry, switching costs;
- Technological advantage and capabilities, technological displacement; and
- Asset profile.

a) Strategy

194. A company's business strategy will enhance or undermine its market entrenchment and business stability. Compelling business strategies can create a durable competitive advantage and thus a relatively stronger competitive position. We form an opinion as to the source and sustainability (if any) of the company's competitive advantage relative to its peers'. The company may have a differentiation advantage (i.e., brand, technology, regulatory) or a cost advantage (i.e., lower cost producer/servicer at the same quality level), or a combination.

195. Our assessment of a company's strategy is informed by a company's historical performance and how realistic we view its forward-looking business objectives to be. These may include targets for market shares, the percentage of revenues derived from new products, price versus the competition's, sales or profit growth, and required investment levels. We evaluate these objectives in the context of industry dynamics and the attractiveness of the markets in which the company participates.

b) Differentiation/uniqueness, product positioning/bundling

196. The attributes of product or service differentiation vary by sector, and may include product or services features, performance, durability, reliability, delivery, and comprehensiveness, among other measures. The intensity of competition may be lower where buyers perceive the product or

service to be highly differentiated or to have few substitutes. Conversely, products and services that lack differentiation, or offer little value-added in the eyes of customers, are generally commodity-type products that primarily compete on price. Competition intensity will often be highest where limited or moderate investment (R&D, capital expenditures, or advertising) or low employee skill levels (for service businesses) are required to compete. Independent market surveys, media commentaries, market share trends, and evidence of leading or lagging when it comes to raising or lowering prices can indicate varying degrees of product differentiation.

197. Product positioning influences how companies are able to extend or protect market shares by offering popular products or services. A company's abilities to replace aging products with new ones, or to launch product extensions, are important elements of product positioning. In addition, the ability to sell multiple products or services to the same customer, known as bundling or cross-selling, (for instance, offering an aftermarket servicing contract together with the sale of a new appliance) can create a competitive advantage by increasing customers' switching costs and fostering loyalty.

c) Brand reputation and marketing

198. Brand equity measures the price premium a company receives based on its brand relative to the generic equivalent. High brand equity typically translates into customer loyalty, built partially via marketing campaigns. One measure of advertising effectiveness can be revenue growth compared with the increase in advertising expenses.
199. We also analyze re-investment and advertising strategies to anticipate potential strengthening or weakening of a company's brand. A company's track record of boosting market share and delivering attractive margins could indicate its ability to build and maintain brand reputation.

d) Product/service level quality

200. The strength and consistency of a value proposition is an important factor contributing to a sustainable competitive advantage. Value proposition encompasses the key features of a product or a service that convince customers that their purchase has the right balance between price and quality. Customers generally perceive a product or a service to be good if their expectations are consistently met. Quality, both actual and perceived, can help a company attract and retain customers. Conversely, poor product and service quality may lead to product recalls, higher-than-normal product warnings, or service interruptions, which may reduce demand. Measures of customer satisfaction and retention, such as attrition rates and contract renewal rates, can help trace trends in product/service quality.
201. Maintaining the value proposition requires consistency and adaptability around product design, marketing, and quality-related operating controls. This is pertinent where product differentiation matters, as is the case in most noncommodity industries, and especially so where environmental or human health (concerns for the chemical, food, and pharmaceutical industries) adds a liability dimension to the quality and value proposition. Similarly, regulated utilities (which often do not set their own prices) typically focus on delivering uninterrupted service, often to meet the standards set by their regulator.

e) Barriers to entry, switching costs

202. Barriers to entry can reduce or eliminate the threat of new market entrants. Where they are effective, these barriers can lead to more predictable revenues and profits, by limiting pricing

pressures and customer losses, lowering marketing costs, and improving operating efficiency. While barriers to entry may enable premium pricing, a dominant player may rationally choose pricing restraint to further discourage new entrants.

203. Barriers to entry can be one or more of: a natural or regulatory monopoly; supportive regulation; high transportation costs; an embedded customer base that would incur high switching costs; a proprietary product or service; capital or technological intensiveness.
204. A natural monopoly may result from unusually high requirements for capital and operating expenditures that make it uneconomic for a market to support more than a single, dominant provider. The ultimate barrier to entry is found among regulated utilities, which provide an essential service in their 'de juris' monopolies and receive a guaranteed rate of return on their investments. A supportive regulatory regime can include rules and regulations with high hurdles that discourage competitors, or mandate so many obligations for a new entrant as to make market entry financially unviable.
205. In certain industrial sectors, proprietary access to a limited supply of key raw materials or skilled labor, or zoning laws that effectively preclude a new entrant, can provide a strong barrier to entry. Factors such as relationships, long-term contracts or maintenance agreements, or exclusive distribution agreements can result in a high degree of customer stickiness. A proprietary product or service that's protected by a copyright or patent can pose a significant hurdle to new competitors.

f) Technological advantage and capabilities, technological displacement

206. A company may benefit from a proprietary technology that enables it to offer either a superior product or a commodity-type product at a materially lower cost. Proven research and development (R&D) capabilities can deliver a differentiated, superior product or service, as in the pharmaceutical or high tech sectors. However, optimal R&D strategies or the importance or effectiveness of patent protection differ by industry, stage of product development, and product lifecycle.
207. Technological displacement can be a threat in many industries; new technologies or extensions of current ones can effectively displace a significant portion of a company's products or services.

g) Asset profile

208. A company's asset profile is a reflection of its reinvestment, which creates tangible or intangible assets, or both. Companies in similar sectors and industries usually have similar reinvestment options and, thus, their asset profiles tend to be comparable. The reinvestment in "heavy" industries, such as oil and gas, metals and mining, and automotive, tends to produce more tangible assets, whereas the reinvestment in certain "light" industries, such as services, media and entertainment, and retail, tends to produce more intangible assets.
209. We evaluate how a company's asset profile supports or undermines its competitive advantage by reviewing its manufacturing or service creation capabilities and investment requirements, its distribution capabilities, and its track record and commitment to reinvesting in its asset base. This may include a review of the company's ability to attract and retain a talented workforce; its degree of vertical integration and how that may help or hinder its ability to secure supply sources, control the value-added part of its production chain, or adjust to technological developments; or its ability to develop a broad and strong distribution network.

2. Analyzing subfactors for scale, scope, and diversity

210. In assessing the relative strength of this component, we evaluate four subfactors:

- Diversity of product or service range;
- Geographic diversity;
- Volumes, size of markets and revenues, and market shares; and
- Maturity of products or services.

211. In a given industry, entities with a broader mix of business activities are typically lower risk, and entities with a narrower mix are higher risk. High concentration of business volumes by product, customer, or geography, or a concentration in the production footprint or supplier base, can lead to less stable and predictable revenues and profits. Comparatively broader diversity helps a company withstand economic, competitive, or technological threats better than its peers.

212. There is no minimum size criterion, although size often provides a measure of diversification. Size and scope of operations is important relative to those of industry peers, though not in absolute terms. While relatively smaller companies can enjoy a high degree of diversification, they will likely be, almost by definition, more concentrated in terms of product, number of customers, or geography than their larger peers in the same industry.

213. Successful and continuing diversification supports a stronger competitive position. Conversely, poor diversification weakens overall competitive position. For example, a company will weaken its overall business position if it enters new product lines and countries where it has limited expertise and lacks critical mass to be a real competitor to the incumbent market leaders. The weakness is greater when the new products or markets are riskier than the traditional core business.

214. Where applicable, we also include under scale, scope, and diversity an assessment of the potential benefits derived from unconsolidated (or partially consolidated) investments in strategic assets. The relative significance of such an investment and whether it is in an industry that exhibits high or, conversely, low correlation with the issuer's businesses would be considered in determining its potential benefits to scale, scope, and diversity. This excludes nonstrategic, financial investments, the analysis of which does not fall under the competitive position criteria but, instead, under the capital structure criteria.

a) Diversity of product or service range

215. The concentration of business volumes or revenues in a particular or comparatively small set of products or services can lead to less stable revenues and profits. Even if this concentration is in an attractive product or service, it may be a weakness. Likewise, the concentration of business volumes with a particular customer or a small group of customers, or the reliance on one or a few suppliers, can expose the company to a potentially greater risk of losing and having to replace related revenues and profits. On the other hand, successful diversification across products, customers, and/or suppliers can lead to more stable and predictable revenues and profits, which supports a stronger assessment of scale, scope, and diversity.

216. The relative contribution of different products or services to a company's revenues or profits helps us gauge its diversity. We also evaluate the correlation of demand between product or services lines. High correlation in demand between seemingly different product or service lines will accentuate volume declines during a weak part of the business cycle.

217. In most sectors, the share of revenue a company receives from its largest five to 10 customers or

counterparties reveals how diversified its customer base is. However, other considerations such as the stability and credit quality of that customer base, and the company's ability to retain significant customers, can be mitigating or accentuating factors in our overall evaluation. Likewise, supplier dependency can often be measured based on a supplier's share of a company's operating or capital costs. However, other factors, such as the degree of interdependence between the company and its supplier(s), the substitutability of key supply sources, and the company's presumed ability to secure alternative supply without incurring substantial switching costs, are important considerations. Low switching costs (i.e. limited impact on input price, quality, or delivery times as a result of having to adapt to a new supply chain partner) can mitigate a high level of concentration.

b) Geographic diversity

218. We assess geographic diversity both from the standpoint of the breadth of the company's served or addressable markets, and from the standpoint of how geographically concentrated its facilities are.
219. The concentration of business volumes and revenues within a particular region can lead to greater exposure to economic factors affecting demand for a company's goods or services in that region. Even if the company's volumes and revenues are concentrated in an attractive region, it may still be vulnerable to a significant drop in demand for its goods and services. Conversely, a company that serves multiple regions may benefit from different demand conditions in each, possibly resulting in greater revenue stability and more consistent profitability than a more focused peer's. That said, we consider geographic diversification in the context of the industry and the size of the local or regional economy. For instance, companies operating in local industries (such as food retailers) may benefit from a well-entrenched local position.
220. Generally, though, geographically concentrated production or service operations can expose a company to the risk of disruption, and damage revenues and profitability. Even when country risks don't appear significant, a company's vulnerability to exogenous factors (for example, natural disasters, an epidemic, labor or political unrest) increases with geographic concentration.

c) Volumes, size of markets and revenues, market share

221. Absolute sales or unit volumes and market share do not, by themselves, support a strong assessment of scale, scope, and diversity. Yet superior market share is a positive, since it may indicate a broad range of operations, products, or services.
222. We view volume stability (relative to peers') as a positive especially when: a company has demonstrated it during an economic downturn; if it has been achieved without relying on greater price concessions than competitors have made; and when it is likely to be sustained in the future. However, volume stability combined with shrinking market share could be evidence of a company's diminishing prospects for future profitability. We assess the predictability of business volumes and the likely degree of future volume stability by analyzing the company's performance relative to peers' on several industry factors: cyclicalities; ability to adapt to technological and regulatory threats; the profile of the customer base (stickiness); and the potential life cycle of the company's products or services.
223. Depending on the industry sector, we measure a company's relative size and market share based on unit sales; the absolute amount of revenues; and the percentage of revenues captured from total industry revenues. We also adjust for industry and company specific qualitative considerations. For example, if an industry is particularly fragmented and has a number of

similarly sized participants, none may have a particular advantage or disadvantage with respect to market share.

d) Maturity of products or services

224. The degree of maturity and the relative position on the lifecycle curve of the company's product or service portfolio affect the stability and sustainability of its revenues and margins. It is important to identify the stage of development of a company's products or services in order to measure the life cycle risks that may be associated with key products or services.

225. Mature products or services (e.g. consumer products or broadcast programming) are not necessarily a negative, in our view, if they still contribute reliable profits. If demand is declining for a company's product or service, we examine its track record on introducing new products with staying power. Similarly, a company's track record with product launches is particularly relevant.

3. Analyzing subfactors for operating efficiency

226. In assessing the relative strength of this component, we consider four subfactors:

- Cost structure,
- Manufacturing processes,
- Working capital management, and
- Technology.

227. To the extent a company has high operating efficiency, it should be able to generate better profit margins than peers that compete in the same markets, whatever the prevailing market conditions. The ability to minimize manufacturing and other operational costs and thus maximize margins and cash flow--for example, through manufacturing excellence, cost control, and diligent working capital management--will provide the funds for research and development, marketing, and customer service.

a) Cost structure

228. Companies that are well positioned from a cost standpoint will typically enjoy higher capacity utilization and be more profitable over the course of the business cycle. Cost structure and cost control are keys to generating strong profits and cash flow, particularly for companies that produce commodities, operate in mature industries, or face pricing pressures. It is important to consider whether a company or any of its competitors has a sustainable cost advantage, which can be based on access to cheaper energy, favorable manufacturing locations, or lower and more flexible labor costs, for example.

229. Where information is available, we examine a company's fixed versus variable cost mix as an indication of operating leverage, a measure of how revenue growth translates into growth in operating income. A company with significant operating leverage may witness dramatic declines in operating profit if unit volumes fall, as during cyclical downturns. Conversely, in an upturn, once revenues pass the breakeven point, a substantial percentage of incremental revenues typically becomes profit.

b) Manufacturing process

230. Capital intensity characterizes many heavy manufacturing sectors that require minimum volumes to produce acceptable profits, cash flow, and return on assets. We view capacity utilization through the business cycle (combined with the cost base) as a good indication of manufacturers' ability to maintain profits in varying economic scenarios. Our capacity utilization assessment is based on a company's production capacity across its manufacturing footprint. In addition, we consider the direction of a company's capacity utilization in light of our unit sales expectations, as opposed to analyzing it plant-by-plant.
231. Labor relations remain an important focus in our analysis of operating efficiency for manufacturers. Often, a company's labor cost structure is driven by its history of contractual negotiations and the countries in which it operates. We examine the rigidity or flexibility of a company's labor costs and the extent to which it relies on labor rather than automation. We analyze labor cost structure by assessing the extent of union representation, wage and benefit costs as a share of cost of goods sold (when available), and by assessing the balance of capital equipment vs. labor input in the manufacturing process. We also incorporate trends in a company's efforts to transfer labor costs from high-cost to low-cost regions.

c) Working capital management

232. Working capital management--of current or short-term assets and liabilities--is a key factor in our evaluation of operating efficiency. In general, companies with solid working capital management skills exhibit shorter cash conversion cycles (defined as days' investment in inventory and receivables less days' investment in accounts payable) than their lower-skilled peers. Short cash-conversion cycles could, for instance, demonstrate that a company has a stronger position in the supply chain (for example, requiring suppliers or dealers to hold more of its inventory). This allows a company to direct more capital than its peers can to other areas of investment.

d) Technology

233. Technology can play an important role in achieving superior operating efficiency through effective yield management (by improving input/output ratios), supply chain automation, and cost optimization.
234. Achieving high yield management is particularly important in industries with limited inventory and high fixed costs, such as transportation, lodging, media, and retail. The most efficient airlines can achieve higher revenue per available seat mile than their peers, while the most efficient lodging companies can achieve a higher revenue per available room than their peers. Both industries rely heavily on technology to effectively allocate inventory (seats and rooms) to maximize sales and profitability.
235. Effective supply chain automation systems enable companies to reduce investments in inventory and better forecast future orders based on current trends. By enabling electronic data interchange between supplier and retailer, such systems help speed orders and reorders for goods by quickly pinpointing which merchandise is selling well and needs restocking. They also identify slow moving inventory that needs to be marked down, making space available for fresh merchandise.
236. Effective use of technology can also help hold down costs by improving productivity via

automation and workflow management. This can reduce selling, general, and administrative costs, which usually represent a substantial portion of expenditures for industries with high fixed costs, thus boosting earnings.

[Tables 28-30 have been deleted.]

C. Cash Flow/Leverage Analysis

1. The merits and drawbacks of each cash flow measure

a) EBITDA

- ²³⁷. EBITDA is a widely used, and therefore a highly comparable, indicator of cash flow, although it has significant limitations. Because EBITDA derives from the income statement entries, it can be distorted by the same accounting issues that limit the use of earnings as a basis of cash flow. In addition, interest can be a substantial cash outflow for speculative-grade companies and therefore EBITDA can materially overstate cash flow in some cases. Nevertheless, it serves as a useful and common starting point for cash flow analysis and is useful in ranking the financial strength of different companies.

b) Funds from operations (FFO)

- ²³⁸. FFO is a hybrid cash flow measure that estimates a company's inherent ability to generate recurring cash flow from its operations independent of working capital fluctuations. FFO estimates the cash flow available to the company before working capital, capital spending, and discretionary items such as dividends, acquisitions, etc.
- ²³⁹. Because cash flow from operations tends to be more volatile than FFO, FFO is often used to smooth period-over-period variation in working capital. We consider it a better proxy of recurring cash flow generation because management can more easily manipulate working capital depending on its liquidity or accounting needs. However, we do not generally rely on FFO as a guiding cash flow measure in situations where assessing working capital changes is important to judge a company's cash flow generating ability and general creditworthiness. For example, for working-capital-intensive industries such as retailing, operating cash flow may be a better indicator than FFO of the firm's actual cash generation.
- ²⁴⁰. FFO is a good measure of cash flow for well-established companies whose long-term viability is relatively certain (i.e., for highly rated companies). For such companies, there can be greater analytical reliance on FFO and its relation to the total debt burden. FFO remains very helpful in the relative ranking of companies. In addition, more established, healthier companies usually have a wider array of financing possibilities to cover potential short-term liquidity needs and to refinance upcoming maturities. For marginal credit situations, the focus shifts more to free operating cash flow--after deducting the various fixed uses such as working capital investment and capital expenditures--as this measure is more directly related to current debt service capability.

c) Cash flow from operations (CFO)

- ²⁴¹. The measurement and analysis of CFO forms an important part of our ratings assessment, in particular for companies that operate in working-capital-intensive industries or industries in

which working capital flows can be volatile. CFO is distinct from FFO as it is a pure measure of cash flow calculated after accounting for the impact on earnings of changes in operating assets and liabilities. CFO is cash flow that is available to finance items such as capital expenditures, repay borrowing, and pay for dividends and share buybacks.

242. In many industries, companies shift their focus to cash flow generation in a downturn. As a result, even though they typically generate less cash from ordinary business activities because of low capacity utilization and relatively low fixed-cost absorption, they may generate cash by reducing inventories and receivables. Therefore, although FFO is likely to be lower in a downturn, the impact on CFO may not be as great. In times of strong growth the opposite will be true, and consistently lower CFO compared to FFO without a corresponding increase in revenue and profitability can indicate an untenable situation.
243. Working capital is a key element of a company's cash flow generation. While there tends to be a need to build up working capital and therefore to consume cash in a growth or expansion phase, changes in working capital can also act as a buffer in case of a downturn. Many companies will sell off inventories and invest a lower amount in raw materials because of weaker business activities, both of which reduce the amount of capital and cash that is tied up in working capital. Therefore, working capital fluctuations can occur both in periods of revenue growth and contraction and analyzing a company's near-term working capital needs is crucial for estimating future cash flow developments.
244. Often, businesses that are capital intensive are not working-capital-intensive: most of the capital commitment is upfront in equipment and machinery, while asset-light businesses may have to invest proportionally more in inventories and receivables. That also affects margins, because capital-intensive businesses tend to have proportionally lower operating expenses (and therefore higher EBITDA margins), while working-capital-intensive businesses usually report lower EBITDA margins. The resulting cash flow volatility can be significant: because all investment is made upfront in a capital-intensive business, there is usually more room to absorb subsequent EBITDA volatility because margins are higher. For example, a capital-intensive company may remain reasonably profitable even if its EBITDA margin declines from 30% to 20%. By contrast, a working-capital-intensive business with a lower EBITDA margin (due to higher operating expenses) of 8% can post a negative EBITDA margin if EBITDA volatility is large.

d) Free operating cash flow (FOCF)

245. By deducting capital expenditures from CFO, we arrive at FOCF, which can be used as a proxy for a company's cash generated from core operations. We may exclude discretionary capital expenditures for capacity growth from the FOCF calculation, but in practice it is often difficult to discriminate between spending for expansion and replacement. And, while companies have some flexibility to manage their capital budgets to weather down cycles, such flexibility is generally temporary and unsustainable in light of intrinsic requirements of the business. For example, companies can be compelled to increase their investment programs because of strong demand growth, technological changes, or to meet environmental regulatory requirements. Regulated entities (for example, telecommunications companies) might also face significant investment requirements related to their concession contracts (the understanding between a company and the host government that specifies the rules under which the company can operate locally).
246. Positive FOCF is a sign of strength and helpful in distinguishing between two companies with the same FFO. In addition, FOCF is helpful in differentiating between the cash flows generated by more and less capital-intensive companies and industries.
247. In highly capital-intensive industries (where maintenance capital expenditure requirements tend

to be high) or in other situations in which companies have little flexibility to postpone capital expenditures, measures such as FFO to debt and debt to EBITDA may provide less valuable insight into relative creditworthiness because they fail to capture potentially meaningful capital expenditures. In such cases, a ratio such as FOCF to debt provides greater analytical insight.

248. A company serving a low-growth or declining market may exhibit relatively strong FOCF because of diminishing fixed and working capital needs. Growth companies, in contrast, exhibit thin or even negative FOCF because of the investment needed to support growth. For the low-growth company, credit analysis weighs the positive, strong current cash flow against the danger that this high level of cash flow might not be sustainable. For the high-growth company, the opposite is true: weighing the negatives of a current cash deficit against prospects of enhanced cash flow once current investments begin yielding cash benefits. In the latter case, if we view the growth investment as temporary and not likely to lead to increased leverage over the long-term, we'll place greater analytical importance on FFO to debt rather than on FOCF to debt. In any event, we also consider the impact of a company's growth environment in our business risk analysis, specifically in a company's industry risk analysis (see section B).

e) Discretionary cash flow (DCF)

249. For corporate issuers primarily rated in the investment-grade universe, DCF to debt can be an important barometer of future cash flow adequacy as it more fully reflects a company's financial policy, including decisions regarding dividend payouts and share buybacks. In addition, potential M&A can represent a very significant use of cash and is an important component in cash flow analysis.
250. The level of dividends depends on a company's financial strategy. Companies with aggressive dividend payout targets might be reluctant to reduce dividends even under some liquidity pressure. In addition, investment-grade companies are less likely to reduce dividend payments following some reversals--although dividends ultimately are discretionary. DCF is the truest reflection of excess cash flow, but it is also the most affected by management decisions and, therefore, does not necessarily reflect the potential cash flow available.

D. Diversification/Portfolio Effect

1. Academic research

251. Academic research recently concluded that, during the global financial crisis of 2007-2009, conglomerates had the advantage over single sector-focused firms because they had better access to the credit markets as a result of their debt co-insurance and used the internal capital markets more efficiently (i.e., their core businesses had stronger cash flows). Debt co-insurance is the view that the joining-together of two or more firms whose earnings streams are less-than-perfectly correlated reduces the risk of default of the merged firms (i.e., the co-insurance effect) and thereby increases the "debt capacity" or "borrowing ability" of the combined enterprise. These financing alternatives became more valuable during the crisis. (Source: "Does Diversification Create Value In The Presence Of External Financing Constraints? Evidence From The 2007-2009 Financial Crisis," Venkat Kuppaswamy and Belen Villalonga, Harvard Business School, Aug. 19, 2011.)
252. In addition, fully diversified, focused companies saw more narrow credit default swap spreads from 2004-2010 vs. less diversified firms. This highlighted that lenders were differentiating for risk and providing these companies with easier and cheaper access to capital. (Source: "The Power of

Diversified Companies During Crises," The Boston Consulting Group and Leipzig Graduate School of Management, January 2012.)

253. Many rated conglomerates are either country- or region-specific; only a small percentage are truly global. The difference is important when assessing the country and macroeconomic risk factors. Historical measures for each region, based on volatility and correlation, reflect regional trends that are likely to change over time.

E. Financial Policy

1. Controlling shareholders

254. Controlling shareholder(s)--if they exist--exert significant influence over a company's financial risk profile, given their ability to use their direct or indirect control of the company's financial policies for their own benefit. Although the criteria do not associate the presence of controlling shareholder(s) to any predefined negative or positive impact, we assess the potential medium- to long-term implications for a company's credit standing of these strategies. Long-term ownership--such as exists in many family-run businesses--is often accompanied by financial discipline and reluctance to incur aggressive leverage. Conversely, short-term ownership--such as exists in private equity sponsor-owned companies--generally entails financial policies aimed at achieving rapid returns for shareholders typically through aggressive debt leverage.
255. The criteria define controlling shareholder(s) as:
- A private shareholder (an individual or a family) with majority ownership or control of the board of directors;
 - A group of shareholders holding joint control over the company's board of directors through a shareholder agreement. The shareholder agreement may be comprehensive in scope or limited only to certain financial aspects; and
 - A private equity firm or a group of private equity firms holding at least 40% in a company or with majority control of its board of directors.
256. A company is not considered to have a controlling shareholder if it is publicly listed with more than 50% of voting interest listed or when there is no evidence of a particular shareholder or group of shareholders exerting 'de facto' control over a company.
257. Companies that have as their controlling shareholder governments or government-related entities, infrastructure and asset-management funds, and diversified holding companies and conglomerates are assessed in separate criteria.

2. Financial discipline

a) Leverage influence from acquisitions

258. Companies may employ more or less acquisitive growth strategies based on industry dynamics, regulatory changes, market opportunities, and other factors. We consider management teams with disciplined, transparent acquisition strategies that are consistent with their financial policy framework as providing a high degree of visibility into the projected evolution of cash flow and credit measures. Our assessment takes into account management's track record in terms of

acquisition strategy and the related impact on the company's financial risk profile. Historical evidence of limited management tolerance for significant debt-funded acquisitions provides meaningful support for the view that projected credit ratios would not significantly weaken as a result of the company's acquisition policy. Conversely, management teams that pursue opportunistic acquisition strategies, without well-defined parameters, increase the risks that the company's financial risk profile may deteriorate well beyond our forecasts.

259. Acquisition funding policies and management's track record in this respect also provide meaningful insight in terms of credit ratio stability. In the criteria, we take into account management's willingness and capacity to mobilize all funding resources to restore credit quality, such as issuing equity or disposing of assets, to mitigate the impact of sizable acquisitions on credit ratios. The financial policy framework and related historical evidence are key considerations in our assessment.

b) Leverage influence from shareholder remuneration policies

260. A company's approach to rewarding shareholders demonstrates how it balances the interests of its various stakeholders over time. Companies that are consistent and transparent in their shareholder remuneration policies, and exhibit a willingness to adjust shareholder returns to mitigate adverse operating conditions, provide greater support to their long-term credit quality than other companies. Conversely, companies that prioritize cash returns to shareholders in periods of deteriorating economic, operating, or share price performance can significantly undermine long-term credit quality and exacerbate the credit impact of adverse business conditions. In assessing a company's shareholder remuneration policies, the criteria focus on the predictability of shareholder remuneration plans, including how a company builds shareholder expectations, its track record in executing shareholder return policies over time, and how shareholder returns compare with industry peers'.
261. Shareholder remuneration policies that lack transparency or deviate meaningfully from those of industry peers introduce a higher degree of event risk and volatility and will be assessed as less predictable under the criteria. Dividend and capital return policies that function primarily as a means to distribute surplus capital to shareholders based on transparent and stable payout ratios--after satisfying all capital requirements and leverage objectives of the company, and that support stable to improving leverage ratios--are considered the most supportive of long term credit quality.

c) Leverage influence from plans regarding investment decisions or organic growth strategies

262. The process by which a company identifies, funds, and executes organic growth, such as expansion into new products and/or new markets, can have a significant impact on its long-term credit quality. Companies that have a disciplined, coherent, and manageable organic growth strategy, and have a track record of successful execution are better positioned to continue to attract third-party capital and maintain long-term credit quality. By contrast, companies that allocate significant amounts of capital to numerous, unrelated, large and/or complex projects and often incur material overspending against the original budget can significantly increase their credit risk.
263. The criteria assess whether management's organic growth strategies are transparent, comprehensive, and measurable. We seek to evaluate the company's mid- to long-term growth objectives--including strategic rationales and associated execution risks--as well as the criteria it

uses to allocate capital. Effective capital allocation is likely to include guidelines for capital deployment, including minimum return hurdles, competitor activity analysis, and demand forecasting. The company's track record will provide key data for this assessment, including how well it executes large and/or complex projects against initial budgets, cost overruns, and timelines.

3. Financial policy framework

a) Comprehensiveness of financial policy framework

264. Financial policies that are clearly defined, unambiguous, and provide a tight framework around management behavior are the most reliable in determining an issuer's future financial risk profile. We assess as consistent with a supportive assessment, policies that are clear, measurable, and well understood by all key stakeholders. Accordingly, the financial policy framework must include well-defined parameters regarding how the issuer will manage its cash flow protection strategies and debt leverage profile. This includes at least one key or a combination of financial ratio constraints (such as maximum debt to EBITDA threshold) and the latter must be relevant with respect to the issuer's industry and/or capital structure characteristics.

265. By contrast, the absence of established financial policies, policies that are vague or not quantifiable, or historical evidence of significant and unexpected variation in management's long-term financial targets could contribute to an overall assessment of a non-supportive financial policy framework.

b) Transparency of financial policies

266. We assess as supportive financial policy objectives that are transparent and well understood by all key stakeholders and we view them as likely to influence an issuer's financial risk profile over time. Alternatively, financial policies, if they exist, that are not communicated to key stakeholders and/or where there is limited historical evidence to support the company's commitment to these policies, are non-supportive, in our view. We consider the variety of ways in which a company communicates its financial policy objectives, including public disclosures, investor presentation materials, and public commentary.

267. In some cases, however, a company may articulate its financial policy objectives to a limited number of key stakeholders, such as its main creditors or to credit rating agencies. In these situations, a company may still receive a supportive classification if we assess that there is a sufficient track record (more than three years) to demonstrate a commitment to its financial policy objectives.

c) Achievability and sustainability of financial policies

268. To assess the achievability and sustainability of a company's financial policies, we consider a variety of factors, including the entity's current and historical financial risk profile; the demands of its key stakeholders (including dividend and capital return expectations of equity holders); and the stability of the company's financial policies that we have observed over time. If there is evidence that the company is willing to alter its financial policy framework because of adverse business conditions or growth opportunities (including M&A), this could support an overall assessment of non-supportive.

4. Financial policy adjustments--examples

269. Example 1: A moderately leveraged company has just been sold to a new financial sponsor. The financial sponsor has not leveraged the company yet and there is no stated financial policy at the outset. We expect debt leverage to increase upon refinancing, but we are not able to factor it precisely in our forecasts yet.
Likely outcome: FS-6 financial policy assessment, implying that we expect the new owner to implement an aggressive financial policy in the absence of any other evidence.
270. Example 2: A company has two owners--a family owns 75%, a strategic owner holds the remaining 25%. Although the company has provided S&P Global Ratings with some guidance on long-term financial objectives, the overall financial policy framework is not sufficiently structured nor disclosed to a sufficient number of stakeholders to qualify for a supportive assessment. Recent history, however, does not provide any evidence of unexpected, aggressive financial transactions and we believe event risk is moderate.
Likely outcome: Neutral financial policy impact, including an assessment of neutral for financial discipline. Although the company's financial framework does not support long-term visibility, historical evidence and stability of management suggest that event risk is not significant. The unsupportive financial framework assessment, however, prevents the company from qualifying for an overall positive financial policy assessment, should the conditions for positive financial discipline be met.
271. Example 3: A company (not owned by financial sponsors) has stated leverage targets equivalent to a significant financial risk profile assessment. The company continues to make debt-financed acquisitions yet remains within its leverage targets, albeit at the weaker end of these. Our forecasts are essentially built on expectations that excess cash flow will be fully used to fund M&A or, possibly pay share repurchases, but that management will overall remain within its leverage targets.
Likely outcome: Neutral financial policy impact. Although management is fairly aggressive, the company consistently stays within its financial policy targets. We think our forecasts provide a realistic view of the evolution of the company's credit metrics over the next two years. No event risk adjustment is needed.
272. Example 4: A company (not owned by a financial sponsor) has just made a sizable acquisition (consistent with its long-term business strategy) that has brought its credit ratios out of line. Management expressed its commitment to rapidly improve credit ratios back to its long-term ratio targets--representing an acceptable range for the SACP--through asset disposals or a rights issue. We see their disposal plan (or rights issue) as realistic but precise value and timing are uncertain. At the same time, management has a supportive financial policy framework, a positive track record of five years, and assets are viewed as fairly easily tradable.
Likely outcome: Positive financial policy impact. Although forecast credit ratios will remain temporarily depressed, as we cannot fully factor in asset disposals (or rights issue) due to uncertainty on timing/value, or without leaking confidential information, the company's credit risk should benefit from management's positive track record and a supportive financial policy framework. The anchor will be better by one notch if management and governance is at least satisfactory and liquidity is at least adequate.
273. Example 5: A company (not owned by a financial sponsor) has very solid financial ratios, providing it with meaningful flexibility for M&A when compared with management's long-term stated financial policy. Also, its stock price performance is somewhat below that of its closest industry peers. Although we have no recent evidence of any aggressive financial policy steps, we fundamentally believe that, over the long-term term, the company will end up using its financial flexibility for the right M&A opportunity, or alternatively return cash to shareholders.
Likely outcome: Negative financial policy impact. Long-term event risk derived from M&A cannot

be built into forecasts nor shareholder returns (share buybacks or one-off dividends) be built into forecasts to attempt aligning projected ratios with stated long-term financial policy levels. This is because our forecasts are based on realistic and reasonably predictable assumptions for the medium term. The anchor will be adjusted down, by one notch or more, because of the negative financial policy assessment.

F. Corporate Criteria Glossary

Anchor: The combination of an issuer's business risk profile assessment and its financial risk profile assessment determine the anchor. Additional rating factors can then modify the anchor to determine the final rating or SACP.

Asset profile: A descriptive way to look at the types and quality of assets that comprise a company (examples can include tangible versus intangible assets, those assets that require large and continuing maintenance, upkeep, or reinvestment, etc.).

Business risk profile: This measure comprises the risk and return potential for a company in the market in which it participates, the country risks within those markets, the competitive climate, and the competitive advantages and disadvantages the company has. The criteria combine the assessments for Corporate Industry and Country Risk Assessment (CICRA), and competitive position to determine a company's business risk profile assessment.

Capital-intensive company: A company exhibiting large ongoing capital spending to sales, or a large amount of depreciation to sales. Examples of capital-intensive sectors include oil production and refining, telecommunications, and transportation sectors such as railways and airlines.

Cash available for debt repayment: Forecast cash available for debt repayment is defined as the net change in cash for the period before debt borrowings and debt repayments. This includes forecast discretionary cash flow adjusted for our expectations of any share issuance and M&A. Discretionary cash flow is defined in our Ratios And Adjustments criteria and guidance.

Competitive position: Our assessment of a company's: 1) competitive advantage; 2) operating efficiency; 3) scale, scope, and diversity; and 4) profitability.

- Competitive advantage--The strategic positioning and attractiveness to customers of the company's products or services, and the fragility or sustainability of its business model.
- Operating efficiency--The quality and flexibility of the company's asset base and its cost management and structure.
- Scale, scope, and diversity--The concentration or diversification of business activities.
- Profitability--Our assessment of both the company's level of profitability and volatility of profitability.

Competitive Position Group Profile (CPGP): Used to determine the weights to be assigned to the three components of competitive position other than profitability. While industries are assigned to one of the six profiles, individual companies and industry subsectors can be classified into another CPGP because of unique characteristics. Similarly, national industry risk factors can affect the weighing. The six CPGPs are:

- Services and product focus,
- Product focus/scale driven,
- Capital or asset focus,

- Commodity focus/cost driven,
- Commodity focus/scale driven, and
- National industry and utilities.

Conglomerate: Companies that have at least three distinct business segments, each contributing between 10%-50% of EBITDA or FOFC. Such companies may benefit from the diversification/portfolio effect.

Controlling shareholders: Equity owners who are able to affect decisions of varying effect on operations, leverage, and shareholder reward without necessarily being a majority of shareholders.

Corporate Industry and Country Risk Assessment (CICRA): The result of the combination of an issuer's country risk assessment and industry risk assessment.

Debt co-insurance: The view that the joining-together of two or more firms whose earnings streams are less-than-perfectly correlated reduces the risk of default of the merged firms (i.e., the co-insurance effect) and thereby increases the "debt capacity" or "borrowing ability" of the combined enterprise. These financing alternatives became more valuable during the global financial crisis of 2007-2009.

Financial headroom: Measure of deviation tolerated in financial metrics without moving outside or above a pre-designated band or limit typically found in loan covenants (as in a debt to EBITDA multiple that places a constraint on leverage). Significant headroom would allow for larger deviations.

Financial risk profile: The outcome of decisions that management makes in the context of its business risk profile and its financial risk tolerances. This includes decisions about the manner in which management seeks funding for the company and how it constructs its balance sheet. It also reflects the relationship of the cash flows the organization can achieve, given its business risk profile, to its financial obligations. The criteria use cash flow/leverage analysis to determine a corporate issuer's financial risk profile assessment.

Financial sponsor: An entity that follows an aggressive financial strategy in using debt and debt-like instruments to maximize shareholder returns. Typically, these sponsors dispose of assets within a short to intermediate time frame. Financial sponsors include private equity firms, but not infrastructure and asset-management funds, which maintain longer investment horizons.

Profitability ratio: Commonly measured using return on capital and EBITDA margins but can be measured using sector-specific ratios. Generally calculated based on a five-year average, consisting of two years of historical data, and our projections for the current year and the next two financial years.

Shareholder remuneration policies: Management's stated shareholder reward plans (such as a buyback or dividend amount, or targeted payout ratios).

Stand-alone credit profile (SACP): S&P Global Ratings' opinion of an issue's or issuer's creditworthiness, in the absence of extraordinary intervention or support from its parent, affiliate, or related government or from a third-party entity such as an insurer.

Transfer and convertibility assessment: S&P Global Ratings' view of the likelihood of a sovereign restricting nonsovereign access to foreign exchange needed to satisfy the nonsovereign's debt service obligations.

Unconsolidated equity affiliates: Companies in which an issuer has an investment, but which are

not consolidated in an issuer's financial statements. Therefore, the earnings and cash flows of the investees are not included in our primary metrics unless dividends are received from the investees.

Upstream/midstream/downstream: Referring to exploration and production, transport and storage, and refining and distributing, respectively, of natural resources and commodities (such as metals, oil, gas, etc.).

Volatility of profitability/SER: We base the volatility of profitability on the standard error of the regression (SER) for a company's historical EBITDA. The SER is a statistical measure that is an estimate of the deviation around a 'best fit' trend line. We combine it with the profitability ratio to determine the final profitability assessment. We only calculate SER when companies have at least seven years of historical annual data, to ensure that the results are meaningful.

Working-capital-intensive companies: Generally a company with large levels of working capital in relation to its sales in order to meet seasonal swings in working capital. Examples of working-capital-intensive sectors include retail, auto manufacturing, and capital goods.

G. Sector-Specific Criteria

1) Asset managers

Asset managers are companies that derive a majority of their revenues from management and performance fees for managing third-party money or assets on behalf of retail or institutional investors.

a) Capital structure

We assess asset managers' capital structure according to the same methodology we use for other corporate entities, with the exception of one additional subfactor--diversity of the capital structure, which we consider a tier one risk subfactor. A very positive assessment (1) is not used for asset managers.

In analyzing the diversity of the capital structure, we review the combination of debt and equity that forms an asset manager's capital and the degree of diversity within each of these two components. In analyzing diversity within debt, we review the number of different debt sources the company has, its access to different bank lines, and the number of banks providing those lines. In the analysis of equity, we consider whether the company is publicly traded and whether it has the ability to raise funds in public markets. We also look at the composition of equity (whether it includes common equity or any hybrid security, such as preferred equity).

We believe that diversity of capital structure is especially important for asset managers because the somewhat higher confidence sensitivity of these firms relative to nonfinancial corporate entities may rapidly reduce funding flexibility in adverse market or economic conditions. It is favorable, in our view, for an asset manager not to rely on one or a few financial institutions to raise debt and to have access to public equity markets. We view diversity of capital structure negatively if a company is reliant on a single source (for example, one bank) to raise debt and is privately owned with limited access to additional equity.

The initial capital structure assessment is based on the first four subfactors: diversity of the capital structure, currency risk associated with debt, debt maturity profile (or schedule), and interest rate risk associated with debt (see table 28). We may then adjust the initial assessment

based on the fifth subfactor--investments--as per table 22. (The investments assessment cannot exceed positive.)

Table 28

Assessing Capital Structure

Preliminary capital structure assessment	Subfactor assessment
Neutral	No tier one subfactor is negative.
Negative	One tier one subfactor is negative and the tier two subfactor is neutral.
Very negative	Two or more tier one subfactors are negative; or only one tier one subfactor is negative but the tier two subfactor is also negative.

As we analyze the investment portfolio of an asset manager, we also assess the market risk associated with those investments. Our assessment of market risk includes the manager's exposure to movements in interest rates, credit spreads, foreign exchange rates, commodity and equity prices, and any other market movements that could impair its earnings and ability to service debt. Investment portfolio market risk that produces a mismatch in cash flows, hinders profitability, or could cause a track record of losses precludes a positive assessment for investments. If the exposures are not large or hedges are in place, a positive assessment of investments is still possible despite the presence of market risk.

2) Financial market infrastructure companies

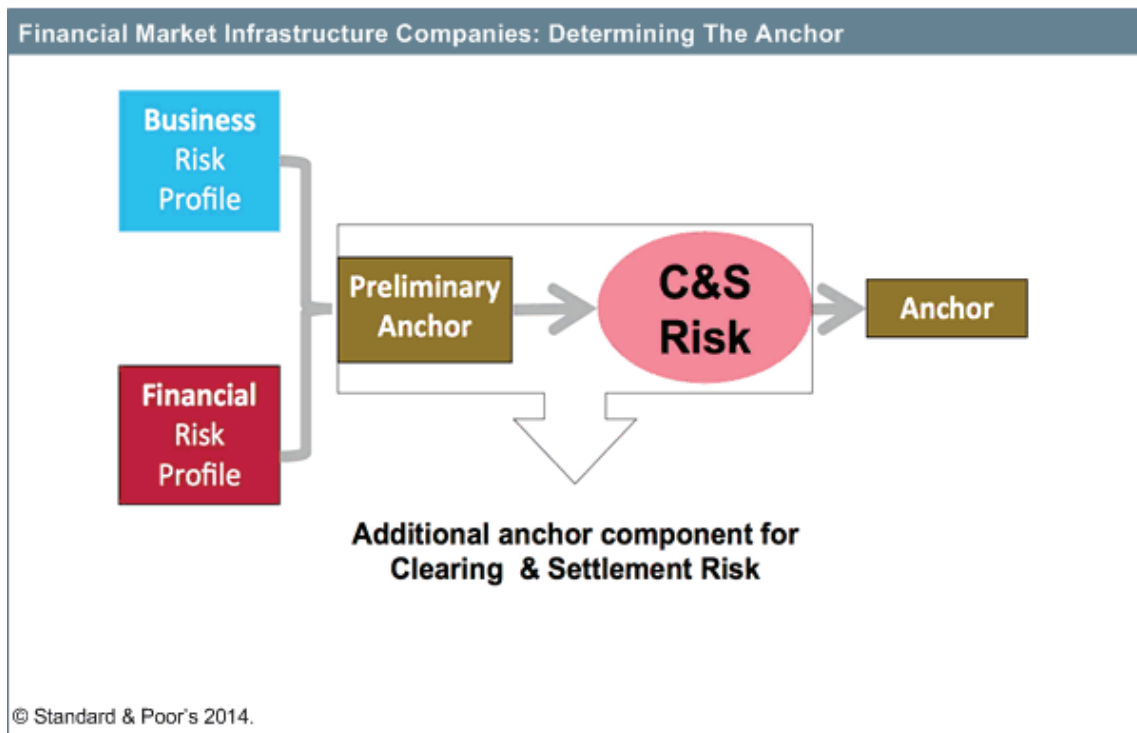
Financial market infrastructure companies (FMI) are principally exchanges, clearinghouses, central security depositories (CSDs), and payment networks that process and clear credit or debit card transactions and cash payments.

a) Clearing and settlement risk

For FMIs, including exchanges, clearinghouses, CSDs, and payment networks, the analysis combines the FMI's business risk profile assessment and its financial risk profile assessment to determine the preliminary anchor. We then incorporate our view of clearing and settlement (C&S) risk to determine the anchor. The C&S risk assessment, as a component of the anchor, is the key difference between the FMI rating framework and the corporate methodology. This is because a clearinghouse's most important function is to reduce credit risk among its members by acting as guarantor or CCP to trades executed in its market. In our opinion, the risk of a member default is the single largest risk that a clearinghouse faces. Similarly, a CSD acts to reduce settlement risk among its members by completing trades on a delivery-versus-payment (DVP) basis and by following other well-established risk management procedures.

Our C&S risk assessment considers the diversity and creditworthiness of membership and an institution's risk management policies and procedures per international standards. The outcome of our C&S risk assessment could raise (by one notch), lower (by one to eight notches), or leave unchanged the preliminary anchor to determine the anchor.

Chart 2



b) Capital structure

For the most part, we follow the corporate methodology for assessing capital structure, which focuses on two Tier 1 risk subfactors (currency risk associated with debt and the debt maturity profile) and one Tier 2 subfactor (interest rate risk associated with debt).

In a limited number of cases, our assessment of capital structure for an FMI differs from the corporate methodology when the FMI is prudentially regulated by the national banking regulators and conducts some (limited) banking operations, such as deposit-taking and/or granting of credit facilities, linked to its core FMI business (e.g., European-based international CSDs). For these FMI companies, we calculate the risk-adjusted capital (RAC) ratio. (For details, see "Risk-Adjusted Capital Framework Methodology.")

For those few FMI companies for which we calculate a RAC ratio and assign potential modifiers, as per table 29, we apply the same five-point scale from very positive (1) to very negative (5), employing similar gradation of RAC ratios as in "Financial Institutions Rating Methodology."

There are two important exceptions. If an FMI has an anchor of 'aa-' or higher, it is not eligible to receive any notches of uplift. This is because we expect FMI companies exhibiting strong business and financial risk profiles to have strong capitalization. Likewise, if an FMI has an anchor within the 'a' category, it may receive a maximum uplift of one notch.

Table 29

Capital Structure--RAC Ratio

	Descriptor	RAC ratio %	Notches
1	Very positive	>15	2
2	Positive	10-15	1
3	Neutral	7.0-9.9	0
4	Negative	5.0-6.9	(1)
5	Very negative	<5	(2) or more

In our view, there is no optimal structure of the financial safeguard package or default waterfall. Some clearinghouses may rely more on individual member margin requirements, while others may rely more on the mutualized guarantee fund. For this reason, the overall protection afforded by the financial safeguard package (i.e., the sum of the parts) is more important than the individual components of the financial safeguard package. For example, very strong guarantee fund contributions can offset weakness in the margin calculation.

2) Financial services finance companies

Financial services finance companies (FSFCs) are finance companies for which the greatest risks relate more to their ability to generate cash flow than to the amount of capital they may need to withstand credit losses. These include consumer finance companies, originators and servicers, auto fleet services companies, real estate services, and money transaction processors, among others.

a) Competitive position

In assessing the competitive position group profile (CPGP) for FSFCs, we review the following factors:

- Competitive advantage;
- Scale, scope, and diversity;
- Operating efficiency;
- Profitability; and
- Regulatory and legislative risks.

We assess a company's exposure to regulatory or legislative risks as either (1) adequate, (2) weak, or (3) vulnerable. If the regulatory and legislative risk assessment is (3) vulnerable, a company's competitive position is capped at (6) vulnerable. If the regulatory and legislative risk is assessment is (2) weak, the competitive position assessment is capped at (5) weak. If the regulatory and legislative risk assessment is (1) adequate, there are no caps on the competitive position assessment.

Regulatory and legislative risks. Regulatory and legislative risks are prominent factors for FSFCs. When assessing regulatory and legislative risks, we consider the credit implications on the FSFC and don't opine on the larger policy issue. From this perspective, regulators may introduce new legislation or change existing policy that could have significant financial consequences

related to both the revenue and costs for individual FSFCs or FSFC subsectors. For example, regulators could impose new regulatory reporting standards, which would increase costs, or regulators could impose limits on the maximum rates at which an individual FSFC or FSFC subsector can lend, which would reduce revenue. Our assessment balances how regulation may constrain profitability while at the same time enhancing profit stability.

Depending on the operating environment, new rules could incrementally constrain the profitability of business activities--for example, by limiting the interest rates permissible to be charged to clients or by limiting the range of clients that a finance company could help finance. Regulatory or legislative changes could also result in higher compliance costs.

We do not view regulatory and legislative risks as a potential positive to competitive advantage. We recognize that regulation could help stabilize volatility for FSFCs, but that would be reflected in the financial risk profile if it were to occur. Given their typically negative impact on competitive ability, regulatory and legislative risks cannot be assessed above adequate. An FSFC with an adequate assessment is not exposed to regulatory policies--existing or prospective--that meaningfully constrain profitability. When regulation reduces competition, we do reflect these benefits directly in the specific company's competitive advantage, as opposed to the overall sector.

An FSFC with a weak regulatory and legislative risk assessment is typically characterized by two or more of the following, or one of the following that is particularly significant:

- Subject to regulatory scrutiny, sometimes in a loosely regulated industry, and profitability could be constrained if new policies were implemented
- Exposed to regulatory and legislative changes, but in some cases, diversification by product or geography partially mitigates these risks
- Has a track record of government policy and regulation that constrain profitability or alter the standards for business conduct

An FSFC with a vulnerable regulatory and legislative risk assessment typically has two or more of the following, or one of the following that is particularly significant:

- Subject to ongoing regulatory scrutiny, and profitability will likely be constrained if new policies were implemented
- Exposed to regulatory and legislative changes, with limited diversification by product or geography
- Has a track record of government policy and regulation that significantly constrain profitability or alter the standards for business conduct

b) Capital structure

We consider a company's dependence on revolving, and generally short-term, asset-specific funding as an additional Tier 1 risk subfactor in our analysis of capital structure for FSFCs.

We assess asset-specific funding as either: (1) neutral, (2) negative, or (3) very negative. We then replace table 21 ("Preliminary Capital Structure Assessment") with table 30 here to determine the preliminary capital structure assessment.

When debt, such as warehouse facilities, or other asset-specific funding is used to finance assets and we net the debt with the assets, we assess the asset-specific Tier 1 subfactor as negative.

Typically, asset-specific funding includes secured and unsecured warehouse lending facilities, repurchase agreements, asset-backed security (ABS) securitizations, and residential mortgage-backed security (RMBS) securitizations.

Table 30

Assessing Capital Structure

Preliminary capital structure assessment	Subfactor assessment
Neutral	No Tier 1 subfactor is negative.
Negative	One Tier 1 subfactor is negative, and the Tier 2 subfactor is neutral.
Very negative	Two or more Tier 1 subfactors are negative; or one Tier 1 subfactor is negative and the Tier 2 subfactor is negative; or asset-specific funding is very negative.

We consider asset-specific funding a key driver of creditworthiness when a company is dependent on this form of funding to facilitate origination volume, primarily because the company could be susceptible to disruptions in adverse economic environments. Specifically, how an FSFC funds its business and the confidence sensitivity of its assets directly affect its ability to maintain business volumes and meet obligations in the event that asset-specific funding options become unavailable at different points in the business cycle. However, finance companies with large confidence-sensitive funding exposures are more susceptible to changes in asset credit quality and tangible capital, and we rate these entities under "Financial Institutions Rating Methodology."

We assess asset-specific funding by considering stability during times of stress, the diversity of counterparties, the type of collateral being pledged, and the maturity of asset-specific funding sources.

An FSFC with a neutral asset-specific funding assessment generally has a limited amount of, or no reliance on, asset-specific funding sources for ongoing business operations.

An FSFC with a negative asset-specific funding assessment is typically characterized by one or more of the following:

- The company is reliant on asset-specific funding sources for ongoing business operations.
- A large proportion of maturities are less than one year, or there is a maturity concentration in the same quarter.
- The company is reliant on a concentrated group of financial counterparties.

An FSFC with a very negative asset-specific funding assessment is characterized by both of the following:

- A company exhibits all of the characteristics of a negative asset-specific funding assessment as per the previous paragraph.
- One or more facilities are subject to substantial margin call exposure.

FREQUENTLY ASKED QUESTIONS

A. Volatility of cash flows

If a company exhibits volatile cash flow metrics, does S&P Global Ratings capture this in the cash flow volatility adjustment or in the financial policy assessment?

We capture this in either analytic factor, as appropriate. As per paragraph 125, the volatility adjustment is the mechanism by which we factor a "cushion" of medium-term variance to current financial performance not otherwise captured in either the near-term base-case forecast or the long-term business risk assessment. We make this adjustment based on the following:

- The expectation of any potential cash flow/leverage ratio movement is both prospective and dependent on the current business or economic conditions.
- Stress scenarios include, but are not limited to, a recession, technology or competitive shifts, loss or renegotiation of major contracts or customers, and key product or input price movements, as typically defined in the company's industry risk profile and competitive position assessment.
- The volatility adjustment is not static and is company-specific. At the bottom of an economic cycle or during periods of stressed business conditions, already reflected in the general industry risk or specific competitive risk profile, the prospect of weakening ratios is far less than at the peak of an economic cycle or business conditions.
- The expectation of prospective ratio changes may be formed by observed historical performance over an economic, business, or product cycle by the company or by peers.
- The assessment of which classification to use when evaluating the prospective number of scoring category moves will be guided by how close the current ratios are to the transition point (i.e. "buffer" in the current scoring category) and the corresponding amount of EBITDA movement at each scoring transition.

As per paragraph 157, financial policy refines our view of a company's risks beyond the conclusions arising from the standard assumptions in the cash flow/leverage assessment. Those assumptions do not always reflect or entirely capture the short-to-medium term event risks or the longer-term risks stemming from a company's financial policy. To the extent movements in one of these factors cannot be confidently predicted within our forward-looking evaluation of cash flow/leverage, we capture that risk in our evaluation of financial policy.

What constitutes a period of stress when assessing whether a company has a volatile or highly volatile level of cash flow/leverage?

As guidance, our global default studies demonstrate significant correlation of defaults with weak points in business cycles and banking crises. The 1991 peak default rate occurred after a mild recession in the U.S., a severe but short recession in the U.K., and the Nordic banking crisis. Other developed-market speculative-grade default peaks were the U.S., at 10.6% in 2001 (the U.S. recession) and 11.4% in 2009 (the global banking crisis and recession); and Europe, at 12.3% in 2002 (due in part to the bursting of the technology/Internet bubble and failures of a large number of telecom start-ups). (Sources: "2012 Annual Global Corporate Default Study," published March 18, 2013, and "Understanding Standard & Poor's Rating Definitions.")

Additional guidance can be found in "Methodology: Industry Risk," Appendix 1 where we considered sensitivity to economic cycles, as measured by the historical cyclical peak-to-trough

decline in profitability and revenues for major recessions ('BBB' and 'BB' stress) mapped to specific industry sectors.

B. Profitability

If a company operates in a region or in a country where local inflation is high, and you believe that this affects the comparability of its profitability measures with industry peers', how do you incorporate this in your assessment?

When analyzing level of profitability, we use, where available, the numeric guidance developed by considering the distribution of profitability measures within an industry or subsector. These thresholds apply globally irrespective of the underlying level of inflation, although we also consider trends in the profitability ratio to determine the level of profitability assessment. However, high inflation environments are often associated with exposure to countries with a high country risk, in which case as per paragraph 87 we may adjust the volatility of profitability assessment to account for this exposure. Finally, to the extent not captured elsewhere in the analysis, we may incorporate this factor as part of the comparable ratings analysis.

REVISIONS AND UPDATES

This article was originally published on Nov. 19, 2013. These criteria became effective on the date of publication.

Changes introduced after original publication:

- Following our periodic review completed on Oct. 16, 2015, we deleted paragraphs 9 and 10, which were related to the initial publication of our criteria and no longer relevant. We also made some adjustments to language. These adjustments have no impact on our ratings or the effective date of the criteria.
- Following our periodic review completed on Oct. 14, 2016, we updated criteria references, the contact list, and the definitions of financial sponsor-owned companies and financial sponsors to be consistent with those in the article "The Treatment Of Non-Common Equity Financing In Nonfinancial Corporate Entities," published April 29, 2014.
- On Feb. 8, 2017, we republished the article to correct an error in the regional grouping for the countries of Bhutan, Grenada, and Eritrea introduced after the periodic criteria review closed on Oct. 14, 2016.
- Following our periodic review completed on Oct. 11, 2017, we updated criteria references.
- On April 23, 2018, we updated the definition of a financial sponsor-owned company in table 23. We also updated the contact information.
- On Dec. 7, 2018, we republished this criteria article to make nonmaterial changes. We updated table 26, which supplements paragraph 46, by removing the GDP weightings of each country making up each defined region. The GDP weightings were removed because they were outdated and because a static table does not reflect the fact that GDP data change dynamically. Consistent with the criteria (see paragraph 46), we calculate regional risk assessments as the average of the unadjusted country risk assessments, weighted by the GDP of each country in a

defined region. These GDP weights were published in the criteria at the time of initial publication for reference only. Since the GDP data change, we use current GDP data each time we recalculate the regional risk assessments. We also updated the contact information and a criteria reference.

- On April 1, 2019, we changed the definition of discretionary cash flow in the Corporate Criteria Glossary section because it was superseded by "Corporate Methodology: Ratios And Adjustments," published on April 1, 2019 (Ratios and Adjustments). We also aligned the FFO to cash interest coverage ratio in paragraphs 103 and 105 with Ratios and Adjustments. We also made a nonmaterial change to paragraph 81 and the Frequently Asked Questions to provide additional transparency on how we assess profitability. Finally, we updated criteria references.
- On July 1, 2019, we republished this criteria article to make nonmaterial changes. We removed tables 28, 29, and 30 that contained industry-specific SER parameters. These parameters are not key rating factors and may change over time. We will update these tables and republish them in "Guidance: Corporate Methodology." We also amended the reference to these tables in paragraph 85 and updated the related research.
- On Dec. 4, 2019, we republished this article to make nonmaterial changes. Specifically, we deleted a sentence in paragraph seven that contained an example that is not criteria text, we clarified language in paragraph 124, we updated the title of table 26, and we updated criteria references.
- On April 30, 2020, we republished this criteria article to make nonmaterial changes: 1) We clarified language in paragraphs 7, 64, 71, 83, 103, 123, and 124 to reflect the fact that some previous content from archived KCFs has subsequently been included in "Guidance: Corporate Methodology"; 2) in paragraph 123, we reformatted and clarified our language as to the use of the standard and medial volatility tables; 3) we added Appendix G, "Sector-Specific Criteria", through which we have consolidated sector-specific criteria for financial market infrastructure companies (FMI) and financial service finance companies (FSFCs) (the criteria in Appendix G previously appeared in separate Key Credit Factors articles for FMI and for FSFCs, both of which have since been archived); 4) in table 27 of Appendix B, we updated the list of subsectors under the media and entertainment industry--specifically, we eliminated trade show, directories, and internet search engines as subsectors, since they are not materially represented in our current rated universe, and we combined several similar subsectors within media and entertainment to simplify the sector-specific guidance; and 5) we updated the "Related Publications" section to include criteria articles referenced by Appendix G.
- On March 31, 2021, we republished this criteria article to correct a publication error in Appendix G. Specifically, we included sector-specific criteria for asset managers that were inadvertently omitted when we consolidated sector-specific criteria that previously appeared in a separate "Key Credit Factors" article for asset managers, which has since been archived.
- On May 27, 2021, we republished this article to make nonmaterial changes. Specifically, we deleted paragraph 192, and moved the list of CRA application examples to "Guidance: Corporate Methodology".
- On Oct. 11, 2021, we republished this criteria article to make nonmaterial changes. We updated paragraphs 61, 82, 89, 112, 117, 125, 185, 220, and 245 to include examples describing how we incorporate environmental, social, and governance credit factors in our criteria framework. We also updated the "Related Publications" section.
- On Dec. 15, 2021, we republished this criteria article to make nonmaterial changes to update criteria references.

Sectors that fall in the scope of these criteria since the original publication include:

- Agricultural cooperatives following publication of "Key Credit Factors For Agricultural Cooperatives" on March 17, 2015;
- Entities engaged in commodities trading activities that generate less than 70% of expected earnings from commodities trading following publication of "Commodities Trading Industry Methodology," published Jan. 19, 2017;
- Master limited partnerships and general partnerships of master limited partnerships trading following publication of "Methodology: Master Limited Partnerships And General Partnerships" on Sept. 22, 2014; and
- Transportation equipment leasing and car rental companies following publication of "Key Credit Factors For The Operating Leasing Industry," published on Dec. 14, 2016.

RELATED PUBLICATIONS

Superseded Criteria

- Companies Owned By Financial Sponsors: Rating Methodology, March 21, 2013
- Methodology: Business Risk/Financial Risk Matrix Expanded, Sept. 18, 2012
- How Stock Prices Can Affect An Issuer's Credit Rating, Sept. 26, 2008
- 2008 Corporate Criteria: Analytical Methodology, April 15, 2008
- Credit FAQ: Knowing The Investors In A Company's Debt And Equity, April 4, 2006

Related Criteria

- Financial Institutions Rating Methodology, Dec. 9, 2021
- Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- Group Rating Methodology, July 1, 2019
- Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- Risk-Adjusted Capital Framework Methodology, July 20, 2017
- Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016
- Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- The Treatment Of Non-Common Equity Financing In Nonfinancial Corporate Entities, April 29, 2014
- Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Methodology: Industry Risk, Nov. 19, 2013

- Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013
- Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings, Oct. 1, 2012
- Principles Of Credit Ratings, Feb. 16, 2011
- Stand-Alone Credit Profiles: One Component Of A Rating, Oct. 1, 2010

Related Guidance

- Guidance: Corporate Methodology, July 1, 2019
- Guidance: Corporate Methodology: Ratios And Adjustments, April 1, 2019

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