S&P Global Ratings: Introduction & Criteria Overview

October 2019

S&P Global
Ratings

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Who Are We?

S&P Global Ratings

Who We Are

S&P Global Ratings is a leading provider of credit ratings.

Our ratings are essential to driving growth, providing transparency and helping to educate market participants so they can make decisions with confidence.

Who We Are (cont'd.)

We are part of S&P Global, the world's foremost provider of credit ratings, benchmarks and analytics in the global capital and commodity markets. S&P Global's divisions are:

- S&P Global Ratings
- S&P Global Market Intelligence
- S&P Dow Jones Indices
- S&P Global Platts

- **S&P Global's goal is to provide the essential intelligence you need to make decisions with conviction**

- **S&P Global's principles:**
  - Integrity
  - Excellence
  - Relevance

Our Views And What We Do

- **We believe that there is a marketplace need for financial information and transparency**
  - To provide investors with metrics for comparability
- **We update and refine our processes to align with developments in the marketplace**
- **This enables us to offer insightful opinions that help market participants make more informed investment decisions**

Our Analytic Coverage

We cover these broad sectors:

- Corporates
- Financial Institutions
- Infrastructure
- Sovereigns/International Public Finance
- Structured Finance
- U.S. Public Finance

What Are Credit Ratings?

What Is A Credit Rating?

What It *Is*

- A forward-looking *opinion* about the ability and willingness of an issuer, such as a corporation or government, to meet its financial obligations in full and on time
- Strives to be globally comparable across sectors
- Incorporates views on the relative likelihood of default that are applied to entities (issuers) and securities (issues)
- One of many inputs available to investors as part of their decision-making process

And What It Is *Not*

- A guarantee of credit quality or default probability
- Investment advice or recommendation (buy, sell or hold)
- A measure of liquidity or price
- A way of defining “good” or “bad” companies
- An audit of the company

What Credit Ratings Do

They foster the development and smooth functioning of capital markets by providing transparent information and insight to market participants.

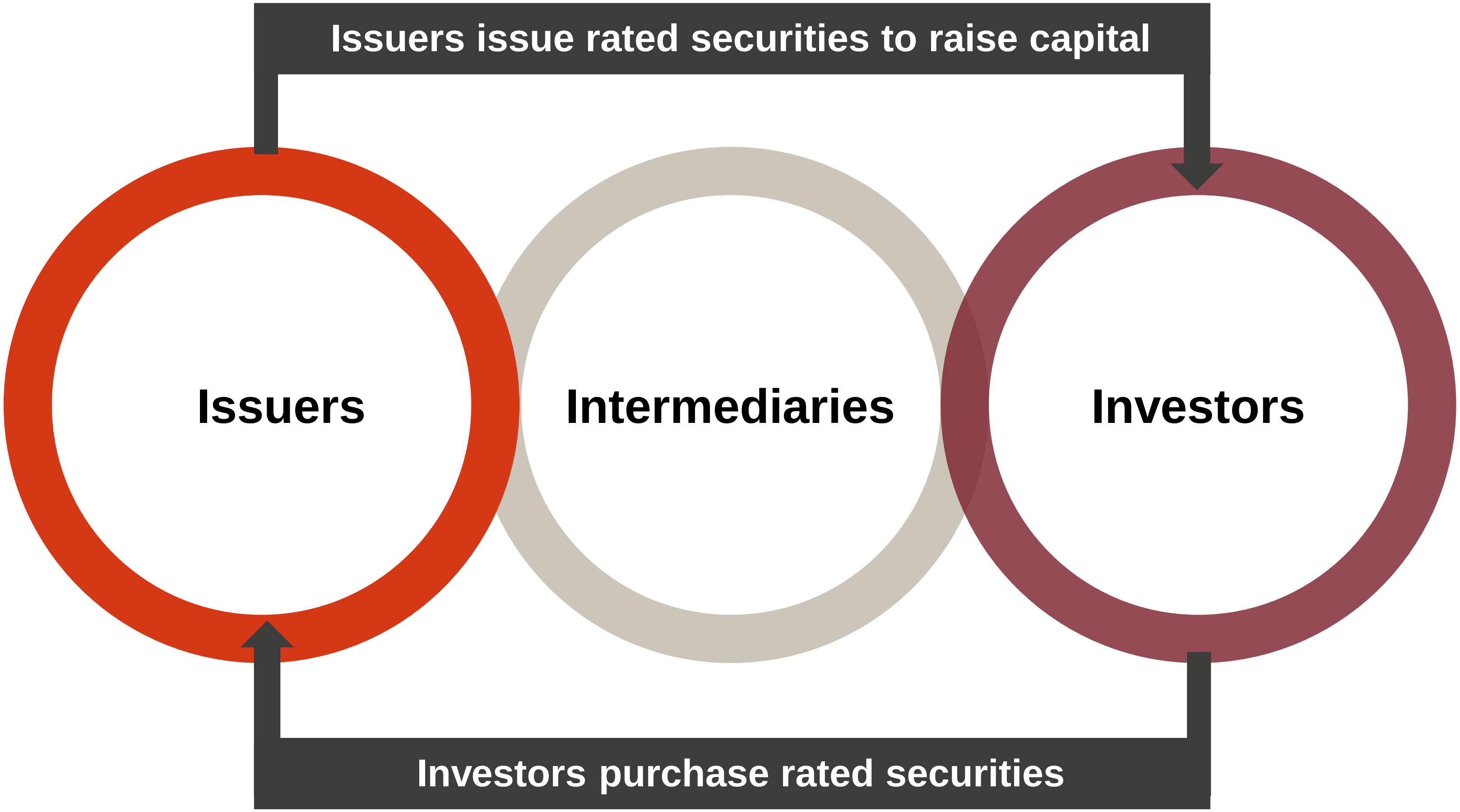
Smooth functioning of the capital markets enables:

- **People to start and grow businesses**
- **Governments to improve infrastructure**
- **Manufacturers to build factories and create jobs**

Additionally, credit ratings provide investors with:

- **Common terminology to describe different levels of creditworthiness (e.g., AAA)**
- **Third-party opinions**
- **Information to help make more informed investment decisions**

Ratings: Raising Capital Through Rated Securities



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U.S. Public Finance Rating Process

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What to Expect from S&P Global Ratings' U.S. Public Finance Rating Process

1	**Contract**	The issuer requests a rating and signs an engagement letter
2	**Pre-evaluation**	We assemble a team of analysts to review pertinent information
3	**Management Meeting**	Analysts meet with management team to review and discuss information
4	**Analysis**	Analysts evaluate information and propose the rating to a rating committee
5	**Rating Committee**	The committee reviews the lead analyst's rating recommendation then votes on the credit rating
6	**Notification**	We generally provide the issuer with a pre-publication rationale for its credit rating for fact-checking and accuracy purposes
7	**Publication**	We typically publish a press release announcing the public rating and post the rating on www.standardandpoors.com
8	**Surveillance of Rated Issuers and Issues**	

Our Ratings Categories

Investment Grade	AAA	**Extremely strong capacity** to meet financial commitments. Highest rating.
	AA	**Very strong capacity** to meet financial commitments.
	A	**Strong capacity** to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances.
	BBB	**Adequate capacity** to meet financial commitments, but more subject to adverse economic conditions.
	BBB-	**Considered lowest investment grade by market participants.**
Speculative Grade	BB+	**Considered highest speculative grade by market participants.**
	BB	**Less vulnerable** in the near term, but faces major ongoing uncertainties and exposure to adverse business, financial and economic conditions
	B	**More vulnerable** to adverse business, financial and economic conditions, but currently has the capacity to meet financial commitments.
	CCC	**Currently vulnerable** and dependent on favorable business, financial and economic conditions to meet financial commitments.
	CC	**Highly vulnerable**; default has not yet occurred, but is expected to be a virtual certainty.
	C	**Currently highly vulnerable to** non-payment, and ultimate recovery is expected to be lower than that of higher rated obligations.
	D	**Payment default** on a financial commitment or breach of an imputed promise; also used when a bankruptcy petition has been filed or similar action taken.

Ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.
See "Ratings Definitions" on www.spglobal.com/ratings.

Evaluating The Issuer Credit Rating

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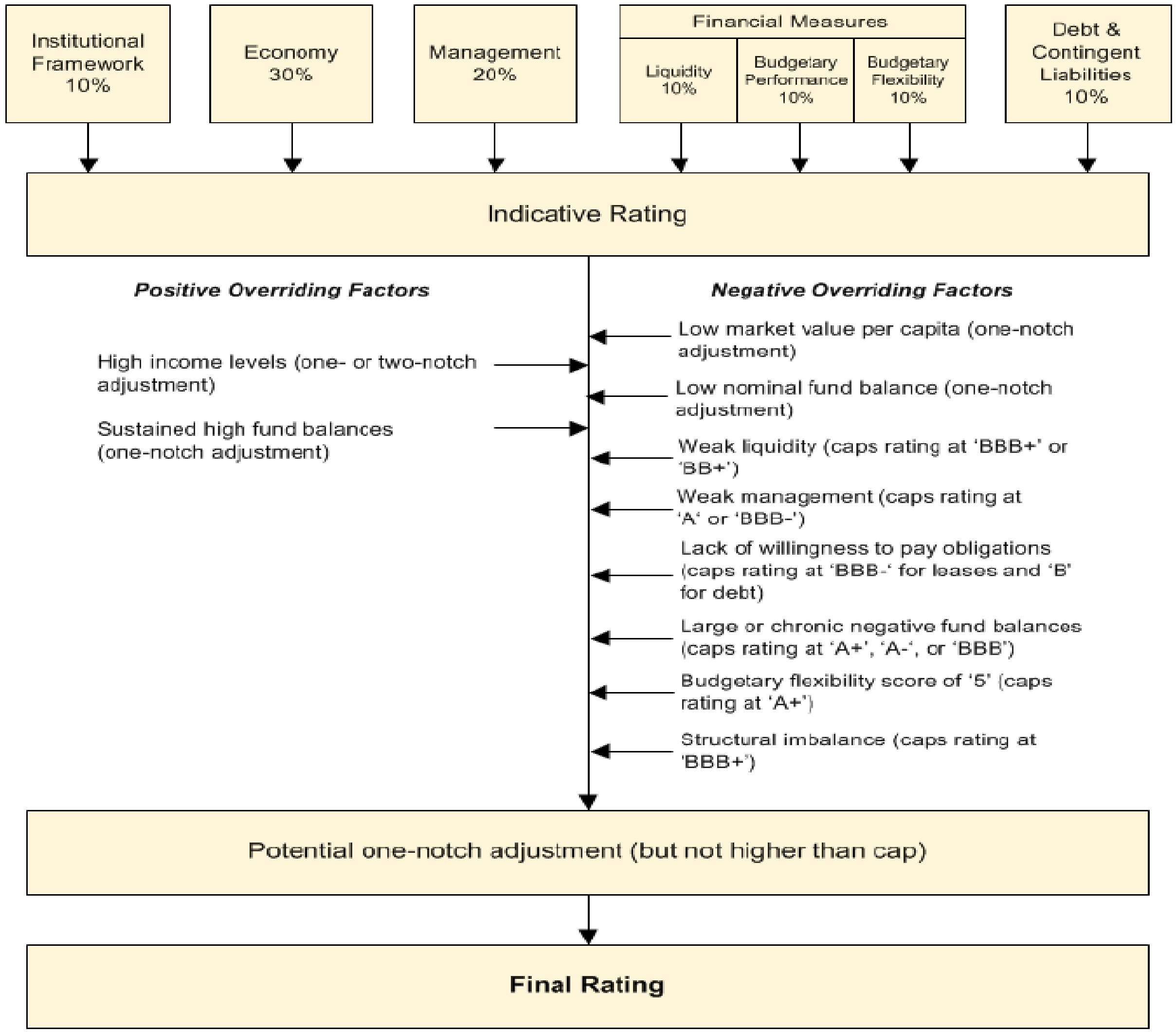
U.S. Local Governments General Obligation Ratings: Methodology And Assumptions

- **S&P Global's methodology and assumptions for assigning issuer credit ratings (ICRs) and issue credit ratings based on general obligation (GO) pledges of local governments in the United States.**

- **Specifically, the criteria assigns ratings based on the assessment and scoring of seven key factors:**
  - Institutional framework;
  - Economy;
  - Management;
  - Budgetary flexibility;
  - Budgetary performance;
  - Liquidity; and
  - Debt and contingent liabilities

Chart 1
Analytical Framework For Local GO Ratings



Assessing The Economic Score

Table 8
Assessing The Economic Score (see paragraphs 41-47)

	Total Market Value Per Capita				
Projected per capita effective buying income as a % of U.S. projected per capita EBI	>$195,000	$100,000 to $195,000	$80,000 to $100,000	$55,000 to $80,000	≤$55,000
>150	1	1.5	2	2.5	3
110 to 150	1.5	2	2.5	3	3.5
85 to 110	2	2.5	3	3.5	4
70 to 85	2.5	3	3.5	4	4.5
≤70	3	3.5	4	4.5	5

A score of '1,' 2', '3',' 4', and '5' means very strong, strong, adequate, weak, and very weak, respectively.

Qualitative factors with a positive impact on the initial score	Qualitative factors with a negative impact on the initial score
Participation in a larger broad and diversified economy (see paragraphs 45-47).	Negative budget impact from demographic profile: population decrease and/or high share of dependent population (>55%) have a material negative impact on future revenue growth and expenditure needs.
A stabilizing institutional influence with a longstanding role as a major employer, such as higher education, health care, military, or large and stable corporate presence.	High county unemployment rate (>10%).
	If employment concentration where an individual sector (excluding education/health, government, and transportation, trade and utilities) represents more than 30% of the nonfarm work base, or tax base concentration where the top 10 taxpayers represent more than 35% of the tax base exists, the score worsens by one point (1). If the top 10 taxpayers exceed 45% of the tax base, the score worsens by two points (2.0).

The adjustment impact of each qualitative factor counts for one point (1.0), except for employment and tax base concentration, where the score may differ by two points (2.0) as described above. The final economic score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Metrics that equal a cut-off point between two initial scores will equate to the worse score. To calculate the market value per capita, the criteria use the most recent estimate available. To calculate projected per capita EBI, the criteria use the most recent local level EBI available, adjusted for per capita personal income growth expectations for the next five years. IHS Inc.(known as Global Insight) or another similar source is used for county–level data and U.S. income projections, while Nielsen (Claritas) or another similar source is used for local level data. To measure unemployment, the criteria use county-level data from the Bureau of Labor Statistics and take the annual rate for the last calendar year. For local governments located with multiple counties, county-level data is weight-averaged based on the percentage of the population of the local government in each county.

Assessing The Management Score

- **Seven Key Factors:**
  - Revenue & Expenditure Assumptions
  - Budget Amendments & Updates
  - Long-term Financial Planning
  - Long-term Capital Planning
  - Investment Management Policies
  - Debt Management Policies
  - Reserve & Liquidity Policies

Table 9
Assessing The Management Score (see paragraphs 48-58)

Score	Characteristics
1 (very strong)	FMA score of "Strong" and none of the factors in scores '4' or '5' are present.
2 (strong)	FMA score of "Good" and none of the factors in scores '4' or '5' are present.
3 (adequate)	FMA score of "Standard" and none of the factors in scores '4' or '5' are present.
4 (weak)	FMA score of "Vulnerable" or any of the following is present: there is a financial reporting restatement that has a material negative impact; any of the conditions in score '5' existed within the past three years; the structural imbalance override condition exists or existed within the past three years; or a very high debt, pension, and OPEB burden.
5 (very weak)	Regardless of the FMA score, any of the following is present: a management team that lacks relevant skills resulting in a weak capacity for planning, monitoring, and management; an auditor has delivered a going concern opinion; the government is exhibiting an unwillingness to support a debt or capital lease obligation; or the government is actively considering bankruptcy in the near term.
Qualitative factors with a positive impact on the initial score	**Qualitative factors with a negative impact on the initial score**
Consistent ability to maintain balanced operations.	Frequent management turnover inhibiting a current understanding of the government's financial position and its ability to adjust, or political gridlock, or instability that brings the same results.
Government service levels are limited.	Consistent inability to execute approved structural reforms for two consecutive years.
For each relevant qualitative factor, the score changes by one point. The final management score equals the initial score adjusted up or down based on the net effect of the qualitative adjustments. Qualitative adjustments cannot improve an initial management score of '5' or, in certain cases, a score of '4' (see paragraph 57).	

Financial Measures

- **Budgetary Flexibility Score:**
  - The budgetary flexibility score measures the degree to which the government can look to additional financial flexibility in times of stress.

- **Budgetary Performance Score:**
  - The budgetary performance score measures the current fiscal balance of the government, both from a general fund and total governmental funds perspective.

- **Liquidity Score:**
  - The liquidity score measures the availability of cash and cash equivalents to service both debt and other expenditures.

Assessing The Debt & Contingent Liabilities Score

- **The criteria form the initial debt and contingent liabilities score from the combination of two measures:**
  - **Total governmental funds debt service as a percentage of total governmental funds expenditures**
    - Debt service as a percentage of expenditures measures the annual fixed-cost burden that debt places on the government.
  - **Net direct debt as a percentage of total governmental funds revenue**
    - Debt to revenues measures the total debt burden on the government's revenue position rather than the annual cost of the debt

Table 14
Assessing The Debt And Contingent Liabilities Score (see paragraphs 78-84)

	Net Direct Debt As % Of Total Governmental Funds Revenue				
Total Governmental Funds Debt Service As A % of Total Governmental Funds Expenditures	<30	30 to 60	60 to 120	120 to 180	≥180
< 8	1	2	3	4	5
8 to 15	2	3	4	4	5
15 to 25	3	4	5	5	5
25 to 35	4	4	5	5	5
≥35	4	5	5	5	5

A score of 1, 2, 3, 4 and 5 are very strong, strong, adequate, weak and very weak, respectively.

Qualitative factors with a positive impact on the initial score:	Qualitative factors with a negative impact on the initial score:
Overall net debt as a percentage of market value below 3%.	Significant medium-term debt plans produce a higher initial score when included.
Overall rapid annual debt amortization, with more than 65% coming due in 10 years.	Exposure to interest-rate risk or instrument provisions that could increase annual payment requirements by at least 20%.
	Overall net debt as a percentage of market value exceeding 10%.
	Unaddressed exposure to large unfunded pension or OPEB obligations leading to accelerating payment obligations over the medium term that represent significant budget pressure (see paragraph 82). If there is a plan to address the obligations, the final score worsens by one point; otherwise the score worsens by two points.
	Speculative contingent liabilities or those otherwise likely to be funded on an ongoing basis by the government representing more than 10% of total governmental revenue .

For each relevant qualitative factor, the score changes by one point, except for unaddressed exposure to unfunded pension or OPEB obligations which can worsen the final score by two points. The final debt and contingent liabilities score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Metrics equal a cutoff point between two initial scores will equate to the worse score.

Medians & Credit Factors – Arizona Municipalities & Counties

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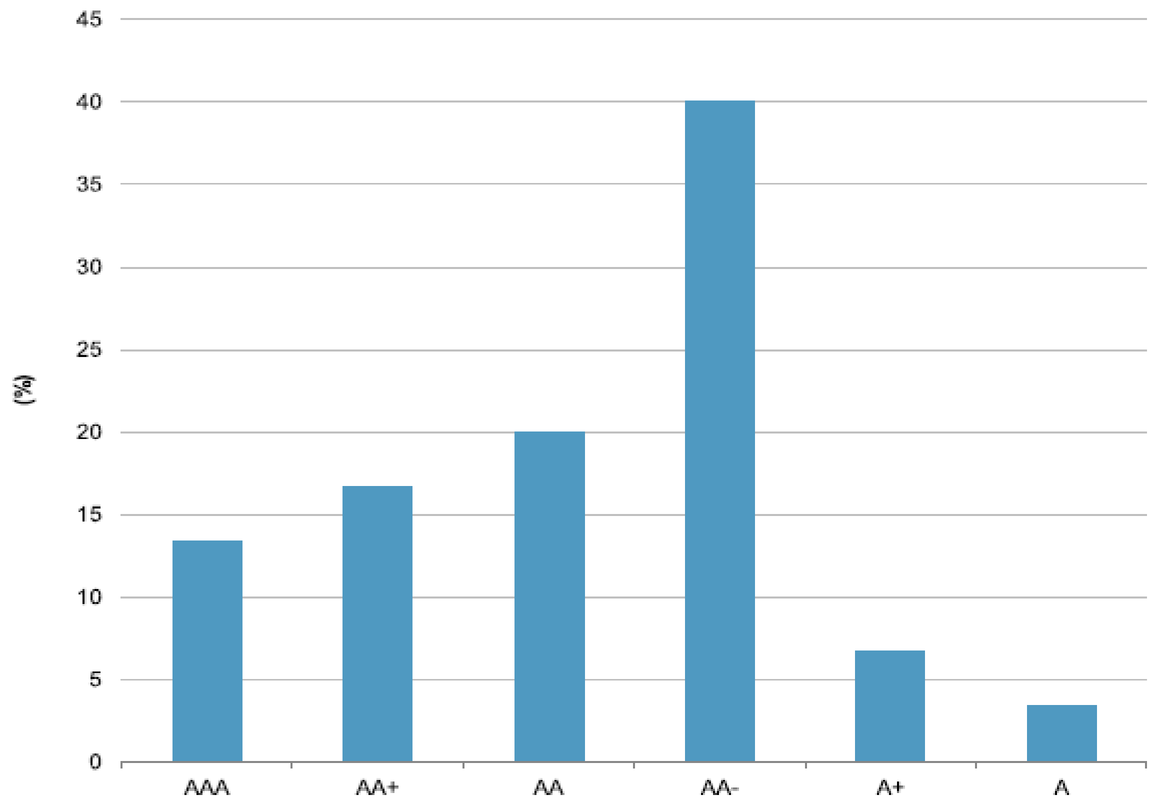
Arizona Local Government Data

Chart 1

Arizona Counties and Municipalities: Rating Distribution



As of Feb. 22, 2019

Arizona Local Government Data

Table 1

Arizona Counties and Municipalities: Medians

	Rating					
	AAA	AA+	AA	AA-	A+	A
Projected per capita EBI (%)	109	114	88	76	70	40
Market value per capita ($)	110,801	105,149	88,487	65,402	86,982	23,308
Available general fund (%)	39	43	55	41	44	56
General fund performance (operating surplus to expenditures) (%)	1.5	7.1	4.9	5.8	1.9	5.6
Cash and expense (%)	96	146	80	77	85	41
Debt service carrying charge (%)	11.6	8.8	11.8	10.5	4.8	6.9
Pension ARC + OPEB as % expense	7.9	6.0	6.2	7.7	16.0	3.3

EBI--Effective buying income. ARC--Annual required contribution. OPEB--Other postemployment benefits.

Table 2

Arizona Counties and Municipalities: Financial Management Assessment

	Rating					
Score (%)	AAA	AA+	AA	AA-	A+	A
Strong	100	80	33	42	0	0
Good	0	20	50	33	0	0
Standard	0	0	17	25	100	100

As of Feb. 22, 2019

S&P Global Ratings